Myths and Realities of the Belgian Medical Model Colony: A Genealogy

Simon De Nys-Ketels

Doctoral dissertation submitted to obtain the academic degree of
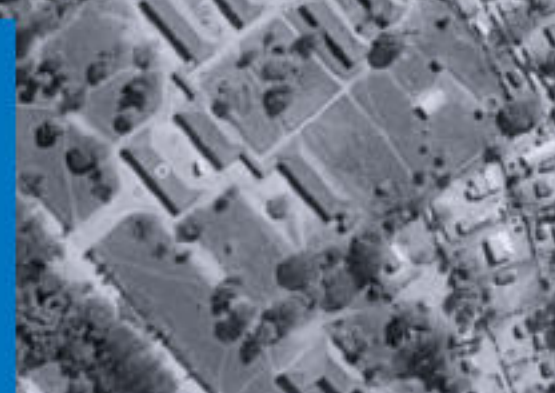Doctor of Architectural Sciences and Engineering

Supervisors

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Acknowledgments

Although the last year of my PhD I often felt as a hermit in reclusion – at least my office at times bore more similarities to a hermit's cove than to a desk – it wasn't done in isolation. Directly or indirectly, many people helped, and this publication could have been realized without them. The most direct help, of course, came from my promotors. The sharp observations of Koen Stroeken, who joined the research later in the process, offered a refreshing new perspective at exactly the right time. I also want to thank Jacob Sabakinu, who unfortunately passed away in the beginning of this year. Without his vast knowledge of archives, and his ability to build bridges between Congolese and Belgian academia, and with the management of the Mama Yemo Hospital during my fieldwork, this PhD could not have been written. Yet the most direct and substantial support came from my two main supervisors, Luce Beeckmans and Johan Lagae. The freedom they gave me to explore the paths that I personally considered most interesting, the adaptive and insightful support they offered in this unknown territory, and their ability to help reorient when I found myself lost, were absolutely crucial for this PhD. On top of that, and perhaps this is what I've appreciated most in hindsight: this leeway to explore also allowed me to have fun while doing this PhD, a combination that unfortunately often proves mutually exclusive for many other PhD-students I've shared experiences with.

Next to my supervisors, many colleagues at the architectural department of the Ghent University have helped or supported me the last six years. Time and again, Pierre Putman fixed my deteriorating laptop, and always accompanied these with new bar tips, juicy stories of derailed Microsoft managers, or simply a good conversation. Thanks to Kristien, Ben, Willem, and Pieterjan, not only for insightful professional discussions, but also talks about Surf, Beatles, Lebowski and so much more. Thanks to Wan, for coping with me in our shared greenhouse, for her relentless enthusiasm, and for discarding my headphones as irrelevant – if it had been solely up to me, we would have missed so many topics. Thanks to Laurence, for her equally relentless hunger to dig in the archives, for her patience to work through some of the texts we wrote together, and for seeing past the perfectionism only she saw. Lastly, thanks to Robby, for incredibly professional days, and the less professional nights that often followed them. I enjoyed them equally, and it is hard to say of which of the two I learned the most.

This PhD wouldn't have seen the light of day if it weren't for the many people outside the department who also lent me their helping hand. It is quite impossible to name them all, but special thanks goes to the staff of the Africa Archives in Brussels, in particular to Rafael Storme for helping me truly understand the inner workings of the archives. To acknowledge his frustration: for researchers, too, it

Summary

'At least the Belgians built hospitals': generally used by apologists aiming to counter the rising critique on Belgium's colonial past, this may be one of the most heard argument in current-day public debates on Belgium's colonial history. These claims about Belgian Congo as a 'medical model colony' are certainly not all wrong: the colonial government did effectively built a network of hospital infrastructure that was impressive in comparison to many other African colonies. Nevertheless, this reputation remains rooted in colonial propaganda that sought to portray Belgium as a benevolent colonial power and legitimize its colonial rule. To that end, propaganda often distorted the complex reality of colonial hospital infrastructure, in order to paint a more flattering picture of the state of healthcare in Belgian Congo.

This PhD aims to investigate and nuance the persistent myths and realities behind this reputation. It does so by tracing its 'genealogy:' the origins, developments and especially the yet untold story lines behind the 'medical model colony.' This genealogical approach is directly reflected in the chronological structure of the PhD, which is organized along three major colonial timeframes: an early period from 1885 to 1921, during which King Léopold, and later the Belgian state, explicitly deployed hospital construction as a way to shed the tainted international stigma of the red rubber atrocities under the Congo Free State; the interwar years between 1921 and 1945, during which colonial hospital infrastructure and the curing of African labor were deployed to undergird a colonial extraction economy; and the post-war period from 1945 until 1959, during which the colonial state sought to install a colonial rendition of the European welfare state, and implemented the increasingly dense hospital network that truly established Belgian Congo's persistent reputation as a 'medical model colony.'

From repetitive rural healthcare nodes, over functional urban hospital infrastructure, to architecturally ambitious landmark hospitals, the state aimed to construct a similar hierarchic network of hospital infrastructure throughout each of these three periods, albeit to a varying degree and with varying success. As a result, each of these main chronological parts is subdivided in the same, four-way structure. This parallel structure consists of three "scales" – *small*, *medium* and *large* – which correspond to the scale of the *hospital*, the *urban*, and the complete colonial *territory*, and a final chapter on *architecture* that zooms in on an architectural theme that was particularly pertinent to the respective timeframe.

In the *small* scale, I focus on three highly mediatized flagship hospitals: the *Hôpital des Noir* of Boma (1885-1921), the *Hôpital des Noirs* of Léopoldville (1921-1945) and the *Hôpital des Congolais* of Elisabethville (1945-1959). Each of these hospitals was explicitly deployed by the colonial authorities to legitimize colonial rule. Throughout the wide array of colonial propaganda, they were depicted

as well-oiled 'machines à guérir' – as French philosopher Michel Foucault has termed it: spotlessly clean medical facilities that both cured and controlled the colonial population. In reality, however, these mediatized medical centers rarely conformed to these steep ambitions of cure and control. The hospital of Boma most explicitly served as an architectural form of window-dressing to counter international critique on the Congo Free State. The hospital management of Léopoldville had to improvise to face budgetary shortages or practical challenges, often relying on hybrid collaborations with African patients. Lastly, the post-war hospital project of Elisabethville, although designed as important landmark of the 'medical model colony,' remained a paper project, as strenuous negotiations between various branches of the colonial administration hampered its realization.

The ***medium*** scale investigates how colonial hospital infrastructure was embedded within its broader urban tissue. Especially from the 1920s onwards, colonial urban centers were increasingly segregated along racial lines, with the European parts of town separated from the African quarters by what was then termed a 'cordon sanitaire' – a neutral zone that served as an empty strip of land between both sides of the city. As various historians already discussed, medical arguments were key in implementing segregation in colonial cities: Africans were pathologized as the main carriers of tropical disease, and thus had to be spatially separated from the European population. Although relevant, such an exclusively binary historical description of the colonial city fails to fully grasp the more complex realities of colonial urban environments, as various other historians later emphasized. Colonial hospitals offer an interesting lens to further contribute to this academic debate, as they reveal a nuanced history of colonial segregation. With hospitals for Europeans neatly separated from those for Africans, urban hospital infrastructure at first glance neatly reflected segregation, and seems to confirm a straightforward binary reading of the colonial city. Nevertheless, a closer analysis of the urban planning of hospital infrastructure in Boma (1885-1921), Léopoldville (1921-1945), and Coquilhatville (1945-1959), brings a more complex history to the surface. In Boma, the small yet cosmopolitan capital of early colonial Congo, medical segregation was never truly considered a priority in the urban policies of the municipal authorities. In Léopoldville, segregation was implemented from the end of the 1920s onwards, yet the hospital for Africans – which was already situated on the "wrong", European side of the neutral zone and was thus considered a healthcare threat to the European population – was never relocated due to budgetary shortages. And where the medical department of the colonial authorities had been strong proponents of racial segregation during the interbellum, it became an important advocate of unifying hospital infrastructure in the post-war period, even though these progressive policy guidelines were often watered down on the ground, as was the case in Coquilhatville.

In the **_large_** scale, I explore three consecutive construction plans implemented throughout the colonial period: the _Plan Renkin,_ launched in 1910, the _Plan Franck_, implemented during the 1920s, and the _Plan Décennal_, realized between 1950 and the end of the colonial period. Each of these plans included extensive campaigns to realize an increasingly dense rural network of hospital infrastructure across the colonial territory. While genuine ambitions to improve the health of the African population undergirded all three building campaigns, they were driven by other political motives as well. Hospital building campaigns sought to parry external critique and legitimize colonial rule, ensure a healthy and economically productive African labor stock, and extend state presence and control across the colonial territory. These vast and politically crucial infrastructural programs often included the construction of multiple, comparable medical centers. In order to efficiently realize these hospitals, the colonial authorities relied on the use of standardized type-plans that were developed by the central departments and then distributed to the various provincial and local administrative branches. The top-down implementation of these infrastructural plans suggests that the Belgian colonial government functioned like a well-oiled, omnipotent and strongly centralized state apparatus. This was a reputation that Belgian Congo already had during colonial times, and that was later theorized by historian Crawford Young. He utilized the metaphor of the omnipotent 'Bula Matari' – or 'Breaker of Rocks,' the nickname the Congolese populations had given to the Belgian colonial government – to argue that colonial governance, with Belgian Congo as the prime example, was quintessentially characterized by strong, monolithic, and autocratic government administrations. Nevertheless, a close examination of the administrative processes behind these infrastructural plans, and mappings of their actual realization, raise questions about the Belgian colonial administration as a top-down, omnipotent, and monolithic 'Bula Matari.' Instead, I argue throughout these three chapters that the everyday _modus operandi_ of the colonial apparatus was often messy, and was characterized by ad-hoc improvisations to make do with the numerous budgetary problems, issues of manpower, and logistical challenges that continuously plagued the colonial administration.

Throughout these three scales, my main focus is on the 'politics of architecture': the way architecture served the colonial state, both through its function of monumental representation in landmark hospitals, as through the way hospital infrastructure undergirded government aims of segregation, state presence, or economic extraction. While such architectural politics form the object of debate of a burgeoning strand within architectural history, such an emphasis on the political side of architecture risks underestimating the autonomy of the architectural discipline. In **_architecture_**, the fourth and final chapter of each chronological part, I provide the necessary counterweight to my previous focus on these 'politics of architecture.' I do so by exploring how transnational flows of architectural know-how on hospital construction circulated to and within

the colonial world, and how local building practices translated this architectural expertise to the local context. For each period, the chapters zoom in on one particularly relevant architectural theme, ranging from how the materiality of colonial hospitals was shaped by local Congolese building practices (1885-1921), to how Western hospital typologies were translated to the tropical and colonial context (1921-1945), and how post-war hospital plans, designed for Western patients, were adapted to African users (1945-1959). These themes could only be properly addressed by transcending rigid timeframes and crosscutting scales. This allowed to highlight not only the *longue durée* of transnational knowledge exchange on hospital construction, but also the importance of intercolonial and transimperial networks that go beyond those bilateral connections between *métropole* and colony that architectural historians have, as of yet, mainly focused on.

Through these various scales and architectural themes, I highlight the complexities that characterized colonial Congo's healthcare system. As such, I've not only aimed to provide a contribution to the already vast academic scholarship on Belgium's colonial past through the lens of colonial hospital infrastructure, but also to add some nuance to popular debates on Belgium's colonial history, in which the myth of the 'medical model colony,' deeply rooted in colonial propaganda, continues to be reiterated in an often reductive and simplified way. With this PhD, I hope to mark an important step towards what historians such as Guy Vanthemsche have already described as a much needed 'opération de vérification' of the complex and fine-grained history of hospital infrastructure in colonial Congo.

Samenvatting

'De Belgen hebben toch ziekenhuizen gebouwd': dit is waarschijnlijk één van de meest verspreide argumenten in het hedendaags publiek debat omtrent de Belgische koloniale geschiedenis, en wordt in het bijzonder gebruikt door stemmen die de toenemende kritiek op het koloniaal verleden van België trachten te weerleggen. Uiteraard is het argument dat Belgisch Congo een 'medische model-kolonie' was niet volledig uit de lucht gegrepen: de koloniale overheid heeft inderdaad een impressionant netwerk van ziekenhuisinfrastructuur gerealiseerd, zeker in vergelijking met veel andere Afrikaanse kolonies. Desalniettemin blijft deze reputatie geworteld in koloniale propaganda die bedoeld was om België af te schilderen als een filantropische koloniale onderneming en haar koloniaal bewind te legitimeren. Dergelijke propaganda stelde daartoe vaak de complexe realiteit van koloniale ziekenhuisinfrastructuur vertekend voor, om zo een verbloemd beeld van de Belgische koloniale gezondheidszorg te verspreiden.

Dit doctoraat onderzoekt en nuanceert de hardnekkige mythes en realiteit achter deze medische reputatie. Dit wordt gedaan aan de hand van het opstellen van een 'genealogie,' of het in kaart brengen van de oorsprong, ontwikkelingen en tot nog toe verwaarloosde verhaallijnen van de 'medische model-kolonie.' De chronologische structuur van het manuscript weerspiegelt deze genealogische aanpak, en is opgebouwd rond drie belangrijke koloniale periodes: een vroeg tijdsgewricht van 1885 tot 1921, waarin Leopold II en later de Belgische staat explicit ziekenhuisbouw inzette om de internationale kritiek op Congo Vrijstaat te weerleggen, een tussenoorlogse periode van 1921 tot 1945, wanneer ziekenhuisinfrastructuur en het genezen van Afrikaanse werkkrachten werden gebruikt om een extractieve economie te ondersteunen, en de naoorlogse jaren van 1945 tot 1959, wanneer de koloniale overheid een koloniale versie van de Europese welvaartstaat trachtte te installeren, en waarin het netwerk van ziekenhuisinfrastructuur werd gerealiseerd waartoe zo vaak verwezen wordt in het huidige publiek debat omtrent de Belgische koloniale geschiedenis.

Hoewel met wisselend succes en in wisselende mate, ambieerde de koloniale staat doorheen deze drie periodes een vergelijkbaar hiërarchisch netwerk van ziekenhuisinfrastructuur te realiseren, gaande van rurale medische posten en stedelijke ziekenhuisinfrastructuur, tot monumentale medische complexen. Elk chronologisch onderdeel weerspiegelt deze ambitie, en is onderverdeeld in dezelfde, vierdelige structuur. Die bestaat uit drie "schalen" – *small*, *medium*, en *large* – die corresponderen met de schaal van het *ziekenhuis*, de *stad*, en het volledige koloniale *territorium*, en een laatste hoofdstuk omtrent *architectuur*, waarin telkens ingezoomd wordt op een architecturaal thema dat van specifiek belang was voor het respectievelijke tijdsgewricht.

In *small* focus ik op drie bijzonder gemediatiseerde ziekenhuiscomplexen: het *Hôpital des Noir* in Boma (1885-1921), het *Hôpital des Noirs* in Léopoldville (1921-1945) en het *Hôpital des Congolais* in Elisabethville (1945-1959). Deze ziekenhuizen werden alle drie expliciet ingezet door de koloniale overheid om haar beleid te legitimeren. In koloniale propaganda werden ze telkens afgeschilderd als wat de Franse filosoof Michel Foucault heeft omschreven als 'machines à guérir:' smetteloze medische inrichtingen die dienden om de koloniale populatie zowel te genezen als te controleren. In realiteit voldeden deze gemediatiseerde ziekenhuizen echter zelden aan deze ambities van genezing en controle. Zo diende het ziekenhuis in Boma expliciet als een architecturaal oplapmiddel om wanpraktijken in Congo Vrijstaat wit te wassen en antwoord te bieden op de toenemende internationale kritiek. Praktische budgettaire problemen dwongen het ziekenhuismanagement in Léopoldville te improviseren in hun alledaagse beleid, waarbij het vaak moest rekenen op hybride samenwerkingen met Afrikaanse patiënten. En hoewel het ontworpen werd als één van de belangrijkste monumenten van de 'medische model-kolonie,' zorgden aanhoudende spanningen tussen verschillende departementen van de koloniale administratie ervoor dat het naoorlogs ziekenhuisproject in Elisabethville nooit werd afgewerkt.

In *medium*, de tweede schaal, onderzoek ik hoe koloniale ziekenhuisinfrastructuur ingebed is in het omringende stadsweefsel. Vanaf de jaren twintig werden koloniale steden in toenemende mate raciaal gesegregeerd, waarbij de Europese en Afrikaanse stadsdelen van elkaar gescheiden werden door een neutrale, lege zone die toen het 'cordon sanitaire' werd genoemd. Verscheidene historici hebben al aangetoond hoe medische argumenten inderdaad de implementatie van koloniale segregatie onderbouwden: Afrikanen werden gepathologiseerd als de voornaamste dragers van tropische ziektes, en moesten dus ruimtelijk afgescheiden worden van de Europese stadsbevolking. Zoals andere geschiedkundigen echter later hebben aangegeven, is dergelijke binaire historische beschrijving van de koloniale stad relevant, maar schiet deze desalniettemin tekort om de koloniale stedelijke samenleving in al zijn complexiteit genuanceerd weer te geven. Koloniale ziekenhuizen bieden een interessante lens om deze complexe geschiedenis van stedelijke segregatie verder te onderzoeken, en als dusdanig bij te dragen aan dit academisch debat. Op het eerste zicht lijkt koloniale ziekenhuisinfrastructuur – met aparte faciliteiten voor Afrikanen en Europeanen – het binaire beeld van de koloniale stad te bevestigen. Nauwgezette analyse van de stedelijke planning van ziekenhuisinfrastructuur in Boma (1885-1921), Léopoldville (1921-1945), en Coquilhatville (1945-1959), brengt echter een complexere geschiedenis aan het licht. Zo beschouwden de lokale autoriteiten van Boma, de kleine maar kosmopolitische hoofdstad van Congo tot ruwweg 1923, stedelijke en medische segregatie nooit als een prioriteit in hun stedelijk beleid. In Léopoldville werd segregatie geïmplementeerd vanaf het einde van de jaren twintig. Desalniettemin werd het ziekenhuis voor Afrikanen – dat zich reeds aan de "verkeerde," Europese

zijde van de neutrale zone bevond en dus gezien werd als een bedreiging voor de Europese publieke gezondheid – nooit verplaatst wegens budgettaire tekorten. En waar de medische departementen van de koloniale administratie doorheen het interbellum sterke voorstanders waren geweest voor raciale segregatie, ontpopten ze zich in de naoorlogse periode als een belangrijke progressieve stem. Verschillende koloniale dokters en beleidsmakers ijverden voor de vereniging van ziekenhuizen voor Afrikanen en Europeanen, hoewel, zoals het geval was in Coquilhatville, dit beleid vaak lokaal slechts in beperkte mate gerealiseerd werd.

De hoofdstukken onder *large* bespreken de drie opeenvolgende infrastructuurplannen van de koloniale periode: het *Plan Renkin*, dat gelanceerd werd in 1910, het *Plan Franck*, geïmplementeerd doorheen de jaren twintig, en het Tienjarenplan, dat gerealiseerd werd tussen 1950 en het einde van de koloniale periode. Deze drie plannen bevatten telkens ook een grootschalige bouwprogramma voor een ruraal netwerk van ziekenhuisinfrastructuur dat zich steeds fijnmaziger uitstrekte over het gehele koloniale territorium. Hoewel deze programma's zeker getuigden van oprechte ambities om de Afrikaanse gezondheid te verbeteren, werden ze eveneens onderbouwd door andere, politieke motieven. De bouw van dergelijk ziekenhuisnetwerk diende namelijk ook om het koloniaal bewind te legitimeren, gezonde en productieve arbeidskrachten te verzekeren, en de territoriale aanwezigheid en impact van de koloniale staat te vergroten. Deze enorme infrastructuurplannen behelsden over het algemeen de constructie van verschillende, erg vergelijkbare medische centra doorheen het territorium. Om dit bouwprogramma op een zo efficiënt mogelijke manier te realiseren, ontwikkelde de centrale overheid gestandaardiseerde type-plannen, die ze dan verspreidde naar de verschillende provinciale en lokale departementen. Dergelijke top-down implementatie van een grootschalig bouwprogramma lijkt te suggereren dat de Belgische koloniale overheid functioneerde als een goed geolied, krachtdadig en sterk gecentraliseerd overheidsapparaat. De overheid van Belgisch Congo, die door haar Congolese bevolking vaak omschreven werd als 'Bula Matari' of 'Stenenbreker,' had effectief al tijdens de koloniale periode deze reputatie. Later vormde deze bijnaam de inspiratie voor het werk van historicus Crawford Young, die de metafoor van de 'Bula Matari' gebruikte om te argumenteren hoe koloniale beleid, met Belgisch Congo als ultiem voorbeeld, gekenmerkt werd door monolithische, krachtdadige, en autocratische overheidsadministraties. Een fijnmazige analyse en mapping van de onderliggende administratieve methodes en de daadwerkelijke realisatie van deze drie grootschalige bouwprogramma's toont echter een ander beeld. Doorheen de drie hoofdstukken argumenteer ik dat de dagdagelijkse *modus operandi* van het koloniaal apparaat juist erg *messy* was, waarbij functionarissen zich vaak genoodzaakt zagen te improviseren om het hoofd te bieden aan de talloze financiële problemen, tekorten aan mankracht, en logistieke uitdagingen die de koloniale administratie blijvend teisterden.

Doorheen deze drie schalen ligt de focus steeds op de 'politics of architecture': de manier waarop architectuur de koloniale staat ondersteunde, zowel via haar representatieve functie in monumentale ziekenhuiscomplexen, als via de manier waarop ziekenhuisinfrastructuur bedroeg tot overheidsambities van segregatie, controle of economische extractie. Hoewel dergelijke relatie tussen politiek en architectuur het onderwerp vormt van een groeiende tak binnen de (koloniale) architectuurgeschiedenis, brengt deze nadruk op de politieke dimensies van architectuur het risico met zich mee dat de autonomie van de architectuur als discipline onderschat wordt. In *architectuur*, het vierde en laatste hoofdstuk van elk chronologisch onderdeel, tracht ik het nodige tegengewicht te bieden aan mijn voorgaande focus op dergelijke 'politics of architecture.' Dit doe ik door te onderzoeken hoe transnationale stromen van architecturale knowhow omtrent ziekenhuisbouw circuleerden naar en binnen de koloniale wereld, en hoe lokale bouwpraktijken die architecturale expertise vertaalden naar de lokale context. Voor elke periode zoomen de hoofdstukken in op een specifiek architecturaal thema, gaande van hoe de materialiteit van koloniale ziekenhuizen gevormd werd lokale Congolese bouwpraktijken (1885-1921), hoe Westerse ziekenhuistypologieën vertaald werden naar de tropische en koloniale context, en hoe naoorlogse ziekenhuisplannen, ontworpen voor Westerse patiënten, werden aangepast aan Afrikaanse gebruikers (1945-1959). Deze thema's konden enkel voldoende uitgediept worden door voorbij de afgelijnde periodisering van dit doctoraat te kijken, en door bovendien verschillende schalen met elkaar te verbinden. Door deze overstijgende aanpak kon ik niet alleen de *longue durée* van transnationale kennisoverdracht omtrent ziekenhuisarchitectuur traceren en belichten. Het liet me ook toe verder te kijken dan de klassieke bilaterale kennisconnecties tussen metropool en kolonie waar architectuurhistorici zich tot nu toe voornamelijk op hebben gefocust, en het belang van interkoloniale and transimperiale netwerken te onderstrepen.

Doorheen deze verschillende schalen en architecturale thema's, heb ik getracht de complexiteit van de geschiedenis van ziekenhuisinfrastructuur in koloniaal Congo op een genuanceerde manier weer te geven. Zo wil ik, doorheen de lens van ziekenhuisinfrastructuur, niet alleen bijdragen aan de reeds uitgebreide academische geschiedschrijving omtrent het Belgisch koloniaal verleden. Ik hoop ook een bijdrage te leveren aan het actuele publiek debat omtrent de koloniale geschiedenis van België, waarin de mythe van de 'medische model-kolonie,' geworteld in koloniale propaganda, al te vaak herhaald wordt op een vereenvoudigde en weinig kritisch manier. Met dit doctoraat hoop ik dan ook een eerste stap te zetten naar wat historici zoals Guy Vanthemsche al omschreven als een broodnodige 'opération de vérification' van de complexe geschiedenis van ziekenhuisinfrastructuur in koloniaal Congo.

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Introduction

Colonial Congo's medical infrastructure: Myths and realities

A mere two weeks after I had started my PhD on hospital infrastructure in the Democratic Republic of Congo in October 2015, I flew to the country's capital of Kinshasa and for the first time visited a Congolese hospital. The *Hôpital Provincial Général de Référence de Kinshasa* – the city's former colonial hospital for Africans, now commonly known as *Hôpital Mama Yemo*[1] – was and is the largest medical complex of the country. While my previous journey to the DRC as part of my master's thesis research had learned me one can never quite know what to expect in Congo, *Mama Yemo* still caught me off guard. Kristien Geenen, the anthropologist who would collaborate for the next two years on the research project, had already been in Kinshasa for three weeks, and had established good connections with the hospital management. This first day, she continued her anthropological research, while I, as an architect, was given a brief introductory tour of the hospital's various buildings by T., a member of the hospital's *Service de Maintenance*.

The complex sometimes shared more resemblance with a public market than what I had previously considered a medical facility. Already at the outside of the hospital, countless food vendors, medical clothing shops, funeral homes and drugstores had set up shop against the hospital walls, loudly trying to lure me into purchasing anything from their wide variety of goods and services. More commotion awaited me at the gates, where the hospital guards prevented a protesting visitor from entering. As we passed by, they resolved the issue with a routine handshake exchanging some hidden cash, allowing the man to slip in through the gates nonetheless. Once inside, *Mama Yemo* still bore little resemblance to what I thought of as a hospital. The hospital's green courtyards weren't used as a peaceful retreat for patients, but as spaces to dry laundry, do dishes, burn litter, or prepare meals. Instead of empty white corridors, the hallways were packed with numerous people who were staking parts of the passage, spreading out a matrass or a piece of cloth to mark out their personal space. As we passed through the hallways and entered the sleeping wards, the, boiling hot air of the interior and the odor of disinfectant and bedpans made me gasp for a breath of fresh air. Wanting to respect the patients' privacy, I hadn't been keen on entering in the first place, but T. had insisted on showing me the interiors. Standing in the pathway in between two rows of beds, it quickly became clear that the numerous patients – many were sharing beds or sleeping on the ground – were far from thrilled with my presence. Had I known the few Lingala words Kristien would later teach me, I would have understood they told T. to get the *mundele* out as fast as possible.

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1. Named after the mother of former president Mobutu Sese Seko.

Image 1 . Kinshasa's *Hôpital Mama Yemo*

While the first impression of Kinshasa's largest hospital may be one of destitution, the medical complex has become the site of suprising spatial practices of healthcare: outside the hospital, numerous shops have emerged to cater to the various needs of the large crowds that gather at the hospital at a daily basis. At the hospital gates, too, informal practices of accessibility occur, and inside the hospital, *garde-malades* have transformed the hospital spaces, utilizing green spaces for instance as a place to cook or dry clothing.

2015, Kristien Geenen.

These first impressions of *Mama Yemo* seem to confirm the widespread view of Congo as a nation torn by conflict, poverty and disease. Most indicators of well-being of the country, including health, are indeed 'catastrophic.'[2] In a 1984 description of the capital's situation, dr. Zam Kalume provides a bleak account of what has become today an everyday reality for most Congolese: the pressing shortage of social welfare programs, the decrepit state of healthcare infrastructure, and the widespread difficulties to obtain reliable medication.[3] In short, illness in Congo, so Kalume wrote, is a 'luxury' only a few can afford. Two decades later, Peter Persyn and Fabienne Ladrière confirmed how 'Kinshasa's main hospitals […] are places of death. The buildings themselves are ruins; plumbing and electricity are inadequate; material and equipment are practically non-existent.'[4]

And yet, as my stay in the hospital progressed, I realized that although conditions were undeniably dire, there's more to the story than meets the eye. The medical complex is home to surprising spatial regimes and innovative survival tactics of 'débrouillardise' that developed as response to the country and the hospital's grim economic situation.[5] Because *Mama Yemo* struggles to provide basic goods and services such as food, medication or bedlinen to its patients, patients bring along family members or *garde-malades* as their personal caregivers.[6] They wash and cook for their relatives, buy medicines at the drugstores around the complex, and sometimes even renew bandages. Putting out matrasses on the floor next to the bed of the patient or on the verandas of the dormitories, they spend the night in the hospital and transform the corridors into a multi-colored patchwork of blankets and mats, where their chatter and the scent of simmering *pondu* stews help to forget about the dire conditions of the hospital, even if only for a minute. Together with the large numbers of staff and patients, these *garde-malades* attract additional crowds. Apart from the stalls at the hospital, various peddlers commute to the complex, selling jewelry, chocolate cakes or flowers for the deceased. This in turn draws in individuals such as vagrants, street children, and prostitutes, trying to capitalize on the crowds that gather at the site on a daily basis. *Mama Yemo* has truly become interwoven with its surrounding urban tissue, and a crucial economic hub in Congo's capital. As one of the hospital guards we interviewed in 2016 poignantly put it: 'Mama Yemo devient comme un marché public.'

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2. Trefon (2011, p. 2).

3. Kalume (1984). More recent surveys among Kinshasa's population indicate that households in fact do not even list healthcare among their top concerns, as they see themselves confronted with other, more urgent challenges. See de Saint Moulin and Ndaywel è Nziem (2012, p. 258) ; Lelo Nzuzi, Tshimanga Mbuyi, and de Saint Moulin (2004, pp. 135-144).

4. Persyn and Ladrière (2004, p. 66).

5. On 'débrouillardise' see e.g., Bilakila (2004); De Herdt and Marysse (1996); Trefon (2004); Villers, Jewsiewicki, and Monnier (2002).

6. On *garde-malades* in Congo and beyond, see our earlier work: Geenen and De Nys-Ketels (2021), as well as Schnitzler (2014). As discussed in 2/S, close reliance on family members for medical care is rooted in precolonial times. See Lyons (1992, pp. 105-124); De Nys-Ketels, Lagae, Geenen, Beeckmans, and Lumfuankenda Bungiena (2019).

Image 2 . *Garde-Malades*

Improvised spatial practices of *garde-malades* helping out with daily caregiving tasks have transformed the hospital.

2019, Trésor Bungiema.
2010, Marc Gemoets.

Roots and legacies of a persistent myth

Unfortunately, current-day popular media rarely covers these alternative narratives of healthcare and economic opportunity. Instead, it is the shallow impression of my first day in *Mama Yemo* that remains familiar to most Western lay audiences. Media perpetuate the image of Congo as a 'failed state,' either by publishing stories of decrepit hospitals and disastrous medical conditions, or by propagating 'triumphant images' of international development aid coming to the rescue of a helpless country. 'The colonial heritage' of such portrayals, as medical historian Tizian Zumthurm points out, is 'rather obvious.'[7] This is especially pertinent to the growing public debate in Belgium on its colonial past. These discussions have become all the more relevant in recent years, as the question of Belgium's colonial history has become central to the rising debate on decolonization.[8] As I will explore in the epilogue, however, colonial legacies in general, and colonial hospital infrastructure in particular, all too often features in this popular debate in a rather unnuanced way, and the complexities of colonial history are rarely acknowledged. Colonial apologists tend to oppose the imagery of Congo's current healthcare crisis to a nostalgic portrayal of medical services in Belgian Congo on the eve of independence. This nostalgia is shared by various Congolese voices, who criticize contemporaneous policymaking in Congo by deploying the extensive network of hospital infrastructure dating from the colonial period as a bitter reminder of 'un moment de prospérité et d'ordre.'[9] The common argument throughout these 'politiques de la nostalgie' – as historian Guillaume Lachenal and anthropologist Aïssatou Mbodj-Pouye have termed it[10] – is that 'Léopold II crossed a line, but the Belgians built hospitals afterwards. […] Only when the Belgians left, things began to crumble down.'[11] Although several scholars have already challenged this myth on several levels, as I'll explain below, these insights are still not widespread across the popular public debate, as various monographs, biographies, memorial organizations, publications, or even politicians' twitter accounts reveal.[12]

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7. Zumthurm (2020, p. 1).

8. For a historiography of the Belgian 'decolonization debate,' see Goddeeris, Lauro, and Vanthemsche (2020).

9. Lachenal and Mbodj-Pouye (2014, p. 6). As Lagae, De Raedt, and Sabakinu Kivulu (2014) have shown, colonial school infrastructure has incited a similar nostalgia.

10. Lachenal and Mbodj-Pouye (2014).

11. As Bambi Ceuppens, collaborator at Tervuren's Africa Museum, stated on in an interview in a Belgian popular periodical: https://www.knack.be/nieuws/geschiedenis/belgen-zijn-nog-veel-kolonialer-dan-ze-denken/article-longread-1401585.html [accessed: 17 August, 2021].

12. See e.g. Eynikel (2002); Stockman (2011), the initiatives of the organization *Mémoires du Congo*, which has an explicitly apologetic agenda; and publications by Barbier et al. (2013), Raymaekers (2018). https://www.memoiresducongo.be/nl/ [accessed: 21 April, 2021]. When discussions arose in 2018 on whether the Belgian state should formally apologize for its colonial past to the Congolese, contentious Belgian political figure Dries Van Langenhove, for instance, tweeted that 'If even the Mongols, who conquered Europe and Asia by murdering entire countries, have never apologized, why should we apologize about how we, after the mess of Léopold II, built schools, roads and hospitals in Congo? https://twitter.com/DVanLangenhove/status/1097131333036531712, [accessed: 10 June, 2021].

Throughout these popular outlets, hospital construction is time and again cited as one of, if not the prime example of Belgium's beneficial colonial legacy.[13] This undoubtedly finds its roots in colonial propaganda and the often biased documentation produced during colonial times, which continue to be cited directly or indirectly in this contemporary public popular debate. Both to international audiences as to the Belgian population back home, colonial authorities actively – and rather successfully – constructed the myth of the Belgian 'medical model colony.' There was, of course, reality to this myth. As will become clear throughout this PhD, across the vast Congolese territory, the colonial authorities had effectively realized an extensive and fine-grained network of hospital infrastructure by the end of the 1950s. Next to often state-sponsored private and missionary medical infrastructure, over 140 rural state hospitals and more than 1200 dispensaries had been constructed by the colonial government. These offered healthcare to approximately 13.5 million Congolese, with an average of 6.2 beds per thousand inhabitants. Comparable to the 5.1 beds of the U.S., this figure surpassed most other African colonies and even the 4.1 beds per thousand inhabitants in the Belgian metropole. While exact numbers on the amount of this colonial hospital infrastructure that is still in use nowadays is lacking, it is widely acknowledged that this still constitutes a considerable part of current-day Congo's network of hospital infrastructure.[14]

Nevertheless, these figures do not tell the whole reality of hospital infrastructure in Belgian Congo, as Nancy Hunt, perhaps the academic historian who has most famously and extensively discussed Congo's medical history, has already emphasized. Although she compares the Belgian colonial government to a 'developmentalist machine,' that was able to construct 'ubiquitous clinics and maternity wards,' she also underlines that 'this went with rigid racial logics and deeply hated inequalities.' If Belgian Congo publicized itself as a "model colony," she argues, 'its glossy semiotics effaced forced labor, chains, the chicotte (whip), the color bar.'[15] Similar to Hunt's work, one of the central aims of my PhD is precisely to reveal how colonial propaganda did efface, omit or blur reality, creating a myth of a medical model colony. As will be explained throughout the

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13. Only very recently, with the publication of *Congo Colonial: une histoire en questions*, an edited volume targeting a broad audience, has hospital construction more critically been discussed in public debate, although it is still approached as part of a larger healthcare system, rather than as a topic that merits proper scrutiny on its own.

14. Burke (1992, p. 128). As is also acknowledged by e.g. Kakudji (2010), and in the on-going research of Trésor Lumfuankenda Bungiema. For an overview of healthcare in several other African colonial territories, see Azevedo (2017). While this work is, to my knowledge, the only broad overview of its kind, it is at times not substantiated enough. As it focuses on mainly on Portuguese, and to a lesser extent British and French colonies, the work contains some flagrant errors on the Belgian Congolese healthcare service. On the US: U.S. Department of Health, Education, and Welfare, *Annual Report 1955*; On Belgium: Belgian Ministry of Economics, *Annual Statistical Report*; AA/H 4474, letter from Head of Medical Department Dr. Kivits to Minister of Colonies A. Buisseret, 19 June 1957.

15. Hunt (2016, p. 10). Many other historians who studied the (medical) history of Belgian Congo have expressed similar critiques on the darker sides of Belgian colonial propaganda, see e.g. Lyons (1992, 1994).

various chapters of this PhD, this strategy was repeatedly used at multiple key moments of Belgian colonial history. Information about the quality of colonial hospital construction, such as the state of material finishes, technical equipment, occupancy rates, or the amount of doctors and medical staff present, was time and again omitted in favor of carefully selected statistics that painted a more flattering picture of the state of healthcare in Belgian Congo.[16]

The construction of this myth was maintained right until the end of Congo's colonial period. During his independence speech on the 30th of June, 1960, King Baudouin continued to stress that 'des hôpitaux nombreux et remarquablement outillés ont été construits,' lauding the Belgian colonial 'service médical, dont la mise au point a demandé plusieurs dizaines années, a été patiemment organisé, et vous [the Congolese] a délivré de maladies combien dévastatrices.'[17] This independence speech put an exclamation mark to a much longer tradition of active state propaganda trumpeting the healthcare services of the Belgian colony. Already in 1876, King Léopold supported his future colonial enterprise in Congo by pointing to the 'treasures of civilisation' – of which healthcare and (medical) science formed a prime example – colonialism would bestow on Congo's primitive peoples trapped in Africa's 'heart of darkness.'[18]

After the Congo Free State had been ceded to the Belgian state in 1908, propaganda continued to proclaim Western technological innovations and (medical) science as the panacea to the colony's many socio-economic and medical ills. 'Belgians commonly approached the colony as empiricist, masterful, relentless engineers,' and this empirical colonialism undoubtedly reached its apogee in the post-war period.[19] It is perhaps epitomized by *Congo*, a celebratory publication by André Cauvin and John Latouche destined to convince an Anglophone audience of the benevolence of Belgian colonialism:[20]

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16. Although Belgian Congo's network of hospital infrastructure and thus the amount of beds per inhabitant was perhaps the highest of the African continent, the ratio of doctors per inhabitants – another, often used measure for the quality of public healthcare – was only average in comparison to other African (former) colonies. On the eve of independence, Belgian Congo only had 1 doctor for around 20 000 inhabitants, in contrast to e.g. Kenya (1/±11500), African Southern Federation (1/±7000), or Spanish Guinea (1/±7200). This of course can partially explained by the fact that Belgium never trained Congolese doctors. If the outstretched network of medical infrastructure successfully provided healthcare to even the most remote villages, the quality of care offered remains debatable. See Duren (1955, p. 28); Azevedo (2017, pp. 237, 220, 311).

17. Neels (1996).

18. As he said during the opening of the International Geographic Conference in Brussels, which would eventually lead to the founding of the International African Association, which would provide the basis for the later Congo Free State. Quoted in: De Moor, Jacquemin, Kerstens, and Brixhe (2002, p. 12). Conrad (1899).

19. Hunt (2016, p. 10).

20. Other journals also congratulated Belgian Congo on its public healthcare services, which, by 'protecting, gradually educating and civilizing the natives,' made the colony 'one of the model colonies of Africa.' As explained in the introduction of Part 3, the timing of these publications was not a coincidence. Published immediately after the war, at a time when international critique on colonialism was on the rise, it was part of a panoply of publications that sought to justify Belgium's continued colonial presence to the outside world. See Flood and Sherman (1944); Latouche and Cauvin (1945, pp. 100, 110).

A war always goes on in the jungle. A war against an enemy that buzzes, crawls, travels on the wind, or moves invisibly in the blood of even those who fight it. This enemy is disease, invading white and black populations in a deadly variety of forms. Blood-sucking arthropods, vectors of malaria, trypanosomiasis, typhus and relapsing fevers, yellow fever, filariasis, and elephantiasis, are abstract medical terms that mask a sordid pageant of human misery.

[…]

Here are pioneers of the twentieth century, travelling not in covered wagons, but in hospital planes and trucks. Fighting not with flintlocks, but with hypodermics and scalpels, microscopes and health charts. Fighting disease and ignorance with the indefatigable ammunition of science and love. Here is the shape of humanity at work.

For almost a century, paternalistic propaganda has thus painted and perpetuated a stark contrast between an allegedly primitive people in need of tutelage, and an all-knowing, civilized colonizer, an opposition that only strengthened the myth of the medical model colony.[21] Nevertheless, even within this paternalistic colonial propaganda, there are alternative narratives to highlight. Pierre Ryckmans, for instance, who was the Governor General of Belgian Congo between 1934 and 1946, offers an interesting example. On the one hand, his personal dictum 'Dominer pour servir' has been described as the epitome of Belgium's paternalistic policymaking, and he condescendingly proclaimed Congolese to be 'des peoples primitifs, inaptes par définition à se gouverner eux-mêmes.' On the other, the analysis of Ryckmans' personal letters to his wife by historian Jacques Vanderlinden reveals a surprisingly perceptive and empathic persona. Especially after the second World War, he repeatedly vouched for the 'primauté des intérêts des habitants congolais' and the need of colonial rule to serve as a *mission civilatrice*. He lamented the 'effort de guerre' the Congolese population had suffered from and expressed his concerns about the fact that 'la masse est mal logée, mal vêtue, mal nourrie, illetrée, vouée aux maladies et à la mort précoce.'[22]

That Belgian Congo's history of healthcare is far from straightforward can also be seen in colonial photography. Although Cauvin and Latouche's message of 'Science versus the Jungle' marked the main trope across colonial propaganda, recurring images of Congolese bowed over a microscope, under the approving eye of a Belgian doctor, offer a glimpse into alternative narratives various other (medical) historians have already discussed. While this second trope again confirms the highly hierarchic and paternalistic nature of Belgian Congo's healthcare system and its alleged *mission civilatrice*, it also sheds light on medical education and opportunities for socio-economic progress within the colonial healthcare system. In a colony as big as Western Europe, the Belgian authorities were forced to educate Congolese inhabitants as nurses, midwives, and medical

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21. For an extensive overview of tropical medicine in colonial discourse, see Halen (1993)
22. J. Vanderlinden (2007). Ryckmans (1946, p. 205; 1948, pp. 13, 62).
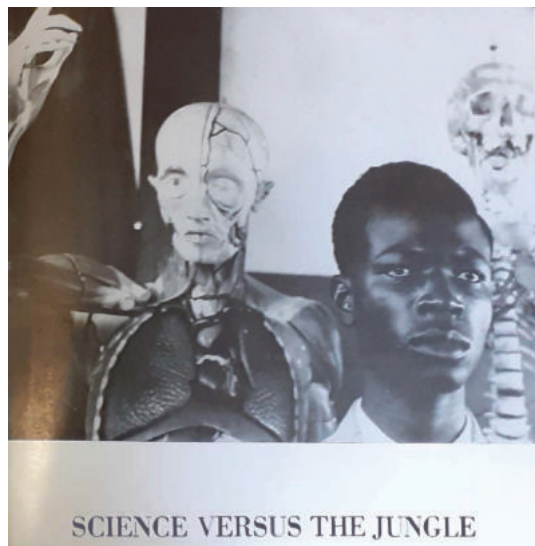
Image 3 . Two tropes in colonial photography.

Both the narrative of 'Science versus the Jungle,'and the image of Congolese pupils taught to use a microscope by a European superviser (here taken at the *Ecole des Assistans Médicaux Indigènes* in Léopoldville), were recurring tropes within colonial photography. The former was undeniably the dominant discourse within colonial propaganda, contrasting the alleged primitivism of Congolese peoples with Belgium's science-based civilization. This trope is perhaps epitomized by this tendentious photograph in which a (white) anatomic model seems to pedantically wag a finger over a Congolese pupil. This was not only a way to legitimize colonial rule, but also explained the *way* in which Belgium colonized, as Belgian colonial policymaking was allegedly empiricial and was based on the belief in the malleability of the colony through science. In contrast, the latter trope provides a slightly more ambiguous image. While it confirms the harsh paternalism of Belgium's colonial policymaking, it also conjures the socio-economic possibilities of (medical) education, and the way some members of the Congolese population grew into a colonized upper class and functioned as 'middle men.'

Above: Latouche and Cauvin (1945, p. 99)
Below: *ca* 1955, MRAC, J. Mulders (Inforcongo), HP.1956.15.8209.

assistants, and delegate responsibilities – albeit minor ones – to the colonized. Medical assistants especially have received attention from historians, who have described this educated medical class as 'middle figures' in colonial society who operated as brokers between European colonizers and the colonized mass.[23]

Apart from these better-known narratives of medical assistants, however, many other story lines of colonial healthcare have remained under the radar of colonial propaganda. From administrative amateurism, local fraud and unfinished overambitious design projects, to everyday hardship, racism, and the necessity of constant improvisations, this PhD aims to trace some of these untold narratives. It does so by charting the origins, developments and side stories – or, as explained in the next section, the 'genealogy' – of the 'myths and realities' behind the Belgian 'medical model colony.'[24] Through the lens of colonial hospital infrastructure, I aim to study and highlight some of the complexities that characterized colonial Congo's healthcare system, and hope to add nuance to the often reductive way it is featured in current-day public debates on Belgium's colonial history. As I will return to in the epilogue, it is through what renowned Congo historian Guy Vanthemsche has called an 'opération de "verification"' that historians can contribute to this public debate which is more alive than ever, but is all too often still conducted in essentializing terms and through oversimplified binary oppositions.

23. On healthcare, 'middle figures' and social mobility in Belgian Congo, see e.g.: Hunt (1999); Sabakinu Kivilu (2005). Outside of Belgian Congo, see e.g. Crozier (2007).

24. The idiom 'Myths and realities' is derived from the work of renowned Congo-expert Jean Stengers, who already published a very fine-grained historical analysis of Congolese history in *Le Congo, mythes et réalités. 100 ans d'histoire*. In this sense, and as I will explain more thoroughly in the Epilogue, my attempt to provide an 'opération de "verification"' of colonial Congo's history of hospital infrastructure builds further on the nuanced historical approach he, as well as other early pioneers such as Jean-Luc Vellut, strived for.

Genealogy and historiography of colonial healthcare infrastructure

The academic scholarship of Belgian Congo, colonialism, and the role of colonial medicine is incredibly vast, rich and varied, and nearly impossible to summarize in this introduction. Nevertheless, some broad tendencies are relevant to mention, in order to position my contributions to this wide historiography – as I will explain in more detail below.[25] Many of the early historical publications on colonial healthcare simply reiterated the 'triumphalist and apologetic' logic of colonial propaganda, depicting the introduction of Western medicine in colonial territories as an unambivalently beneficial act. [26] However, inspired by the emergence of postcolonial studies from roughly the 1980s onwards, , authors have started challenging this perspective in varying ways. This more critical body of work focused on the consequences of medical scientific 'diffusion' to colonial territories as a 'tool of empire,' and started to unravel the ways in which medicine was entangled with colonial politics.[27] This revealed that colonial healthcare not only served as a 'symbolic legitimation of colonial rule' through propaganda – as explained above, this had certainly been the case for Belgian Congo – but also as a 'means for the colonial state to regulate and discipline the bodies of colonial subjects.'[28] At the same time, scholars have become increasingly aware of the agency of colonial subjects, and the ways in which colonial medicine not only legitimized and consolidated, but also destabilized colonial order. They have highlighted conflict and mediation between imported Western medicine and local practices of healthcare, or drawn attention to the way posts as doctors, medical assistants or nurses in colonial healthcare services also provided socio-economic opportunities to colonized subjects, who often functioned as 'middle figures.'[29] A particular reference should be made to Jean-Luc Vellut, whose work on colonial Congo's public healthcare has, just as his other vast body of publications on the colony's history, always been in touch with on the ground realities, while not losing sight of broader socio-economic and political narratives.[30]

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25. For a historiographical overview of colonial medicine, with a particular focus on Belgian Congo, see the work of Mertens (2009). For a historiography of Belgian Congo, see Vanthemsche (2006).

26. A clear example of such uncritical historical work in the context of Belgian Congo is Burke (1992).

27. See e.g. Headrick (1981, pp. 58-79); Lewis and MacLeod (1988); Arnold (1993); Lyons (1992); Marks (1997); M. Vaughan (1991).

28. Amrith (2006, p. 8); Lachenal (2014). Research on missionary work, however, has somewhat moderated the view that colonial medicine exclusively served the political agendas of the colonial state. See Greenwood (2016); M. Vaughan (1991, pp. 55-76).

29. On mediation of Western science and local healthcare traditions, see e.g. the pioneering work of anthropologist John Janzen (1978) in Zaire. The work of M. Vaughan (1991, p. 24) also deals with this issue. On 'middle figures,' see, as said: Crozier (2007); Hunt (1999); Sabakinu Kivilu (2005).

30. That Vellut published the nuanced and critical work on 'La médecine européenne dans l'Etat Indépendant du Congo' in 1992, underlines both just how pioneering his work was, and how outdated some of histories of colonial medicine such as the work of Burke (1992) exactly were.

Throughout this vast scholarship, colonial medicine has thus been the object of academic inquiry in itself, but has also served as a vantage point to recalibrate colonial history in general. This PhD is in line with such ambitions, yet complements these by particularly zooming in on hospital infrastructure as a lens to do so. While colonial hospitals, of course, feature in the research outlined above, they are not the true focal point, but are all too often described as the fairly inconsequential background against which more important dynamics of colonial medicine as instrument of colonial power or as a mediated cultural practice took place. And while numerous (architectural) historians have extensively explored the relationship between colonial space and medicine – as explained below, this research has particularly focused on segregation and urban planning, but also on how medical knowledge informed colonial building regulations[31] – publications that zoom in on the spatial planning of hospitals – after all the primary spaces where colonial medicine was effectively practiced – are almost non-existent.[32] Belgian Congo, with its reputation of a 'medical model colony,' forms a particularly valuable terrain of research to study these connections and surface some historical narratives on colonial hospital infrastructure that have hitherto remained unstudied.

To do so, I take the approach of charting a 'genealogy' of the Belgian Congo's *réseau hospitalier*, from its roots during the early colonial period of the Congo Free State and Belgian Congo, over the interbellum, to the last stage of hospital infrastructure at the eve of independence, on which current public debates are predominantly based. French philosopher Michel Foucault first introduced the methodological metaphor of the 'genealogy' as a way to write an alternative 'history of the present.'[33] This method does not simply imply a linear tracing of well-known story lines. Just as drawing a complete family tree means including lesser-known descendants by mapping out an intricate web of established and forgotten relationships, the aim of Foucault's method is to surface narratives or 'subjugated knowledges' that are overlooked in conventional historiography.

To highlight 'subjugated' story lines of Belgian colonial hospital infrastructure, this PhD is structured chronologically, reflecting Foucault's genealogical method, and is subdivided into three main parts. These are based on the timeframes of the three colony-wide hospital construction campaigns that have been developed throughout the colonial period as part of three larger infrastructural programs: the *Plan Renkin*, the *Plan Franck* and the *Plan Décennal*. The first part traces the

31. Though I will return on this body of literature more extensively below, see e.g. Nightingale (2012); Swanson (1977). On the impact of medical knowledge (and medical officers) on urban planning, see e.g. Curtin (1985); Home (1997). On medicine and building regulations, see Chang (2016); Chang and King (2011); Jackson (2013), whose work strongly builds on the pioneering work on colonial space and power by King (1976).

32. The work of Chang (2016); Scriver (1994), and to a lesser extent of Harrison, Jones, and Sweet (2004); M. Jones (2001), form an exception.

33. He did so in a series of lectures in 1976, which were later bundled, published and translated: Foucault (1997, pp. 7, 8); Foucault, Bertani, Fontana, Ewald, and Macey (2003).

roots of the 'medical model colony,' spanning the period from 1885, when the Congo Free State was officially founded, over 1908, when the colony became Belgian Congo and the *Plan Renkin* was launched, to 1921, the starting year of the second construction program. During the Congo Free State, foreign critique on the exploitative economic regime and red rubber politics of King Leopold II increasingly undermined the colony's reputation. After the transfer to the Belgian state, the new Belgian Ministry of Colonies aimed to shed this tainted stigma, by implementing the *Plan Renkin* and extending the nearly inexistent network of hospital infrastructure that had been realized under Leopold. The second part covers the period from 1921, when a second hospital construction campaign was launched as part of the larger infrastructural program called the *Plan Franck*, until the end of the second World War. This was the first hospital construction scheme that actually realized an almost colony-wide *réseau hospitalier* – due to logistical, administrative and budgetary problems, the previous *Plan Renkin* had turned out little more than a pipedream. Nevertheless, the underlying purpose of this new healthcare infrastructure was not only to cure, but also to found an 'armature médicale' that would ensure a productive African labor stock to boost Belgium's extractive colonial economy.[34] The last and most extensive Part deals with the post-war period, during which an even larger hospital construction program was being implemented under the *Plan Décennal*, a socio-economic investment scheme that spanned multiple domains. Reflecting broader shifts in colonial policymaking that historians have termed 'welfare colonialism,' this program sought to boost the colonial economy, counter the international critique on colonialism that arose after the war, as well as genuinely improve the well-being of the colonized by establishing a colonial rendition of the European welfare state.[35] Even though this last decade marked the origin of the myth of the medical model colony, a closer reading of this period reveals struggles to realize medical prestige projects in Congo's most important cities, inadequate maintenance of existing hospital structures, and the persistence of local logics of racial segregation that clashed with the official welfarist discourse of the post-war period.

Each of these three parts follows the same, parallel structure, built up around four recurring chapters: three "scales" – **small**, **medium** and **large** – which correspond with the scale of the *hospital*, the *urban*, and the complete colonial *territory*, and a final chapter on **architecture** that explicitly zooms in on an architectural theme that was particularly pertinent to the specific timeframe of each Part.[36] Although all separate chapters have been written and can be read as relatively autonomous narratives, this recurring structure, and especially the use of parallel scales, also connects and highlights the similarities and divergences that took place across

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34. As explained in the 2/Intro, this was a contemporary term used by colonial medical policymakers.
35. I will return more extensively on this era of 'welfare colonialism' below, and in 3/Intro. See Crawford Young (1994, p. 4).
36. In the book *S M L XL*, Koolhaas, Mau, Werlemann, and Sigler (1998) have deployed a similar scalar structure to present and structure their architectural oeuvre.

these different periods. A few reasons have led to this structure of scales. Perhaps the most important argument was the wide-ranging architectural scales spanned by the hospital typology. Just as is the case with many other national networks of healthcare infrastructure, Belgian Congo's *réseau hospitalier* entailed a hierarchic network of repetitive rural health centers, functional urban hospital infrastructure and, at the top of the chain, vast, architecturally ambitious medical complexes. Whereas the ***small*** zooms in on such highly propagandized flagship hospitals, the ***medium*** considers hospital infrastructure embedded within its broader urban tissue, and the ***large*** focuses on the multitude of moderate medical nodes within the broader healthcare network.

Second, all hospital construction programs were, apart from the increasingly genuine aim to cure patients, marked by steep colonial ambitions – be it the attempt to counter the blemish of the red rubber atrocities, create an economic 'armature médical,' or parry post-war critique on colonialism. Successful or not, these various ambitions always materialized in a particular way specific to each scale. *Hospitals* had to be built or at least advertised as salubrious and well-oiled healing machines that served to economically valorize African labor and legitimize colonial rule. *Urban* hospital infrastructure was first racially segregated as a means of sanitizing the colonial city, and later united in the post-war period to billboard Belgium's progressive welfare policies. Lastly, the *territory* was increasingly covered by a growing network of hospital infrastructure, which was deployed in colonial healthcare propaganda to advertise Belgian Congo as a medical model colony, but also facilitated state presence and sanitary control in the colony's rural hinterland.

Lastly, each of these scales resonates with a particular theme or debate that has been central in historiography dealing with colonialism in Belgian Congo and beyond, and reveals how colonial hospital infrastructure offers an enriching new perspective to each of these discussions. The ***small*** confronts the steep ambitions of mediatized hospitals as spotlessly clean state facilities with the everyday colonial reality; the ***medium*** uses hospital infrastructure within the urban environment as a lens to contribute to debates on colonial racial segregation; and the ***large*** raises questions about if and how colonial authorities effectively functioned as a 'Bula Matari' – a metaphor introduced by Crawford Young to characterize the power of the colonial state – by looking at the administrative processes and political goals underlying colony-wide hospital construction campaigns.[37]

Using the same scales through which the colonial government implemented its colonial healthcare policies as a way to structure this PhD, may at first glance risk confirming the top-down logics of the colonial authorities. However, on the one hand, each scale raises issues that question such logics – highlighting the local realities of hospital infrastructure, the messiness of racial segregation, and the limits of colonial power and governance. On the other, the sequence of scales is

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37. Young (1994, p. 2).

also a deliberate choice. Rather than starting from the territorial scale and gradually zooming in, the **small** forms the starting point of each part. Just as the **medium**, it does not function as a mere illustration of **larger** policies, but stands alone as an autonomous and equally important narrative. This automatically highlights the concrete effects of colonial policymaking on the ground, and the ways various colonial architects, officials and African inhabitants shaped and were effected by local colonial realities that often defied rigorous top-down implementation of colonial policies.

Throughout these scales, I mainly zoom in on the socio-political dimensions of colonial hospital infrastructure. Overemphasizing the 'politics of architecture,' however, entails the risk of running into a crucial issue that particularly pertains to the colonial context, and that architectural historian Sibel Bozdogan already raised in 1999: 'How does one talk about the politics of architecture without reducing architecture to politics?'[38] Although it is undeniable that colonial architecture served the state's ambitions of power, politics and economy, the autonomy of architecture, its professional discipline and its designers still needs to be acknowledged. The fourth and final chapter on **architecture** completes the backbone of each chronological part, and provides some necessary counterweight to these 'politics of architecture.' In its chapters, l focus on one particularly relevant architectural theme for each period, often crosscutting scales to provide accounts of how transnational flows of architectural expertise circulated to and within the colonial world, and how local building practices adapted this architectural know-how on hospital infrastructure to a tropical and colonial context.

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38. Bozdogan (1999, p. 207), quoted in: Lagae and Toulier (2014, p. 47).

Small: *Mediatized 'machines à guérir' and everyday colonial realities*

Current hospitals in Belgium and beyond are rarely experienced as the paragon of transparent, legible architecture. With multiple-story slabs stacking a daunting number of specialized medical services on top of each other, picking the right elevator can already be a hassle, let alone choosing the right floor. Hospital planners have become painstakingly aware of these logistic challenges, and have introduced a panoply of bright signs, arrows, and color-coded floor markings that serve to efficiently navigate visitors, patients and staff alike to the right location within these massive medical complexes. The architecture of these new skyscraper-hospitals, a medical typology that really only came to prominence in the 1950s, rarely reminds us of the clear-cut legibility and controllability hospital architecture was designed to offer in the 19th century.

In his pioneering work on the origins and the societal role of hospitals and healthcare in France during the Enlightenment, French philosopher Michel Foucault has described how hospitals in this period were destined to function as what he conceptualized as 'machines à guérir.'[39] First and foremost, hospital architecture, of course, had to cure patients. From the mid-19th century onwards, hospital design was increasingly adapted in response to the reigning medical theories of contamination. At the time, diseases were attributed to miasmas – contagious air that was believed to emanate from the soil, from sick patients and from infected hospital interiors. Ventilation was thus believed to be key to create healthy spaces. Whereas medieval hospitals lumped together all patients in one giant ward, the 19th century hospital became subdivided in several, spatially separated pavilions, each destined for only one pathology or sex and connected only by an open, airy corridor. Each ward was parallel to the other, oriented along the dominant direction of the wind. Spacious green voids in between allowed the wind to blow through the dormitories and ventilate the medical complex. In the wards, large windows and a maximum amount of cubic meters per bed had to allow each patient to have enough, well-ventilated and thus healthy air. [40] At the same time, the everyday management of hospitals increasingly

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39. The term of a 'machine à guérir' originally stems from Parisian surgeon Jacques-René Tenon (1788), who's pioneering work on hospital planning was incredibly influential throughout the 19th and even the beginning 20th century.
Tenon's description has also served as the inspiration for *Les Machines à Guérir, aux origines de l'hôpital modern*. This edited volume was led by Michel Foucault in collaboration with various architectural historians and was part of the book series *Architecture & Archives*. Together with the fact that Foucault has engaged with spatial concepts such as the Panopticon, his direct involvement with architectural historians might explain the wide impact his work has had on postcolonial architectural historical research. See Foucault, Thalamy, and Barret-Kriegel (1979).

40. It should be noted that Foucault not only attributed these typological changes to miasmic theory, but also to the influence of the medical profession. Following Linnaeus' botanical determination, doctors increasingly strived for a 'classificatory medicine' that properly distinguished each disease and its remedy. While the medieval hospital typology obstructed this classificatory 'medical gaze,' distinct pavilions allowed doctors to separate and study distinct pathologies. See Foucault and Sheridan (2003, pp. 4, 9, 17), originally published by Foucault (1963)
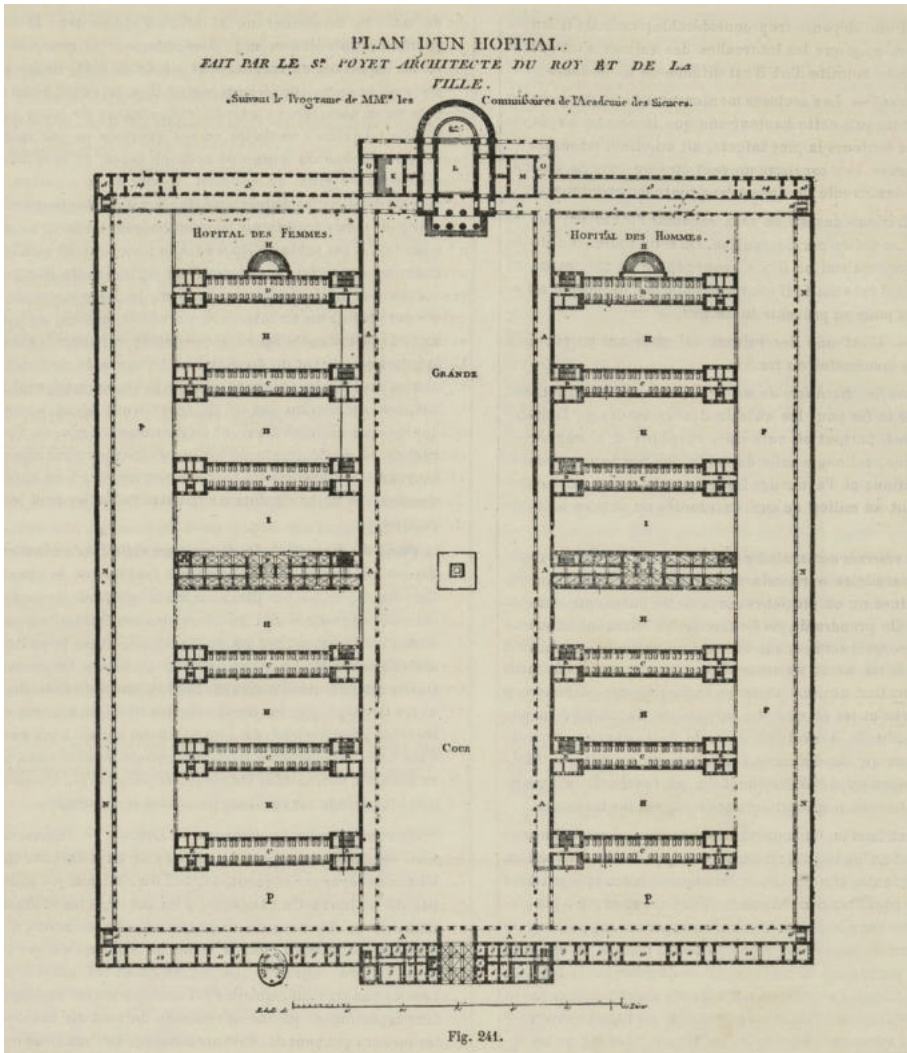
Image 4 . Pavilion typology hospital

In 1788, French architect Bernard Poyet designed perhaps one of the most famous pavilion typology hospitals during his study for the *Hôtel-Dieu* of Paris. His plans would be referred to time and again for over a century, for example in the standard work published by French engineer Casimir Tollet in 1894 on *Les Hôpitaux Modernes de la XIXème siècle*.

The pavilion typology hospital was comprised of parallel communal wards, separated by large courtyards. This lay-out, as well as the internal organization of the rectangular wards with large windows on each of the long sides, facilitated ventilation of what was believed to be contagious air or miasma. At the same time, however, this design also facilitated the 'dark side' of biopower. Not only were patients from different sexes or pathologies separated in distinct pavilions, which improved data-collection, the hospital's circulation scheme also optimized control and supervision, with a central corridor and a single entrance to each dormitory overseen by the nurse room.

Tollet, 1894, p. 220.

focused on ensuring that these hospital wards were kept in a perfectly hygienic, sanitized state. With the advent of antiseptic measures from the 1860s onwards, disinfecting surgical suites and sleeping spaces became an even more important day task for the staff. This impacted hospital architecture as well. New interior finishes, rounded corners, seamless floor tiling and a different choice of furniture materials simplified the cleaning duties of the hospital personnel.[41]

The changing design of hospitals in the 19th century, was not only destined to heal, but also to facilitate supervision and control. As Foucault argued, the development of the pavilion hospital was part of the broader emergence of various public institutions in Enlightenment Europe, when nations shifted from classic sovereign states to modern, liberal governments. According to Foucault, the ancient sovereign regimes had been characterized by the fact that they claimed the exclusive 'right to take life or let live', and sovereign state bodies such as the police or the tax collector were predominantly designed to limit or terminate the freedom of inhabitants. During the Enlightenment, however, liberal governments increasingly exercised what Foucault has termed 'biopolitics' and 'biopower' – or the 'powers over life that targeted both the individual body,' and the 'social body, through government of the population.'[42] Where 'sovereign power forbade and prohibited', biopower steered citizens by 'imposing an order from within.'[43] To enact this new form of power, states were reorganized and developed a panoply of new government techniques, such as checkpoints, identity cards, property regulations, administrative procedures, and data collection, all aimed at creating self-regulating citizens by encouraging 'individuals to govern themselves.'[44] It is this range of modern state techniques that Foucault would later famously call 'governmentality,' a notion through which he called to understand the ideological mentality of a government through its governance praxis.[45]

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41. Kisacky (2017, pp. 78-104).

42. Legg (2007b, pp. 3, 4).

43. Legg (2007b, p. 8).

44. Huxley (2007, p. 188).

45. There is quite some confusion regarding Foucault's most famous neologism. Throughout his work, the philosopher uses 'governmentality' in three different ways. He deploys the concept to describe the 'process through which the state of justice of the Middle Ages transformed into the administrative state during the fifteenth and sixteenth centuries and gradually becomes "governmentalized."' At the same time, governmentality also indicates the final stage of this process, or the 'ensemble formed by the institutions, procedures, analyses, and reflections' that allow the exercise of disciplinary and biopower. Lastly, he 'conceptualizes governmentality as a triangle of sovereignty-discipline-government, in which different modalities of power coexist.' Thus, governmentality can mean the process of governmentalizing, the final stage of the process, or a combination of different stages of government power. These confusing multiple interpretations, and Foucault's 'elusive' oeuvre in general, became one of the main critiques on his theory of power. See Chang (2014, p. 2). Throughout this work, I will use governmentality mainly as the final stage, i.e. the ensemble of government techniques used to implement new forms of statecraft. See Rabinow and Rose (1994, p. 244); Chang (2016, p. 11).

Emerging public institutions such as prisons, schools and hospitals were part of this new 'governmentality.'[46] By tutoring pupils, punishing inmates, or overseeing patients, these institutions were not only destined to mold the behavior of individual citizens, shaping them into 'economically efficient yet politically docile subjects.'[47] They also supported the general governance of the population, by becoming state centers for the collection of demographic data and biostatistics. Through this increasingly fine-grained network of public institutions and services, the 'capillary' power of the modern state, as Foucault termed it, seeped through the everyday life of its subjects in unprecedented ways.[48] At the same time, the philosopher stressed how the covert attempts by the state to control and mold its inhabitants – something he has tellingly called the 'dark side of biopolitics' – were increasingly paired with a genuine aim to capacitate and support citizens: schools informed, prisons corrected, and hospitals cured.[49]

The design of the new public institutions facilitated these two sides of biopower. The Panopticon prison, a cartwheel-like design where a central observation post oversaw all of the facility, is undoubtedly the most widely known and telling example of such 'spatial governmentality.'[50] Nevertheless, this was just as much the case for hospital design. While the 'machine à guérir' was genuinely destined to cure, its spaces also served control and supervision, as architectural historian Adrian Forty has particularly shown for the circulation scheme of the pavilion typology hospital. The communal dormitories, which were designed as a 'cul-de-sac of the main circulation system,' functioned as 'an effective means of supervising patients and staff,' as the nurse's window overlooking the ward made sure she could control anyone going in or out.'[51] This supervision not only facilitated discipline, but also the collection of biostatistics such as mortality and morbidity rates, which could be gathered and sent to central state bodies, where this information was processed and deployed to ensure a stable and healthy population.[52]

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46. Asylums, prisons and hospitals are the direct object of three publications by Foucault with very similar theme's and titles. The role of education in governmentality lingers throughout his work, especially in *The Birth of the Clinic* and in *Discipline and Punish*. See respectively Foucault (1967); Foucault and Sheridan (1977); Foucault and Sheridan (2003).

47. Legg (2007b, p. 8).

48. Foucault and Sheridan (1977, p. 198).

49. Foucault and Sheridan (1977, p. 222) in Legg (2007b, p. 7).

50. As anthropologist Merry (2001, p. 16) termed these spatial policies of discipline and control.

51. Forty (1984, pp. 79-80).

52. Forty (1984, pp. 79-80).

Foucault's pioneering analysis of the spatiality of state power and the development of hospitals has not only made him an obvious reference in studies regarding the history of medical architecture,[53] his insights have also been widely applied to the colonial context and colonial architecture in particular, for which state power was more pertinent than in Europe.[54] Or, as architectural historian Mark Crinson explains why Foucault's writings have been so popular to understand the colonial built environment: 'What lies at the heart of colonial architectural history, should not be unexpected; it is power.'[55]

I, too, draw on Foucault's insights on hospitals and state power as a lens to analyze the three cases of colonial hospitals discussed in the three periods of the *small* scale. The *Hôpital des Noirs* of Boma, the *Hôpital des Noirs* of Léopoldville, and the *Hôpital des Congolais* of Elisabethville were all amongst the most widely mediatized colonial hospital projects of their time, and were trumpeted in colonial propaganda as contemporary 'machines à guérir,' which had to both cure and control. As such, they were part of what could be called a 'politics of visibility' conducted by the colonial state through hospital architecture.[56] As will become clear, this political strategy forms a recurring theme throughout this PhD, as the colonial state conducted such 'politics of visibility' in different ways on different scales. On the *large* scale, architecturally similar and identifiable hospital infrastructures helped to establish a visible state presence across the colonial territory, while representational public hospitals occupied a visible and symbolic prominence within the local cityscape on the urban, *medium* scale. Such architectural prominence was of course also realized on the *small* scale of hospital design, yet next to this physical visibility, these designs were also widely advertised in colonial media. Portraying these flagship hospitals as state-of-the-

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53. Various fairly straightforward typological studies of hospitals by architectural historians have referred to Foucault's writings. Unfortunately, however, many of these studies do not engage critically with his writings, but merely add his name as an almost inevitable reference. See Kisacky (2017); Adams (2008). As an exception, the work of Wallenstein (2008) does directly draw on Foucault's understanding of the emergence of modern hospital architecture, albeit through a highly theoretical approach that sometimes lacks the necessary concrete relation with actual architecture.

54. One of the key texts within this transposition of Foucauldian ideas from a European to a colonial context, is the work by D. Scott (1995). I've been also especially inspired by the work of geographer Legg (2007a, 2007b) and historian Kidambi (2007), who both apply 'governmentality' as a framework to understand urban micropolitics of the colonial cities of New Delhi and Bombay, and the work of Chang (2016), who deploys 'governmentality' to unpack how various architectural typologies – including hospitals – were shaped within the colonial context of Singapore.

55. Mark Crinson (2013, p. 2).

56. This term did not feature in the work of architectural historians I consulted during my research, although it is inspired and tied to what Bozdoğan (2001, p. 9) and Chang (2016, p. 11) have called 'visible politics.' While they both criticize this notion, their understanding of it is limited the 'highly visible and politicized image of power' of representational public buildings. Nevertheless, political strategies of giving visibility to colonial hospital architecture were not limited to such highly symbolic public buildings, and were conducted not only in the actual built environment, but also in the way this built environment was visualized in colonial propaganda. In the next section on the medium scale, I will return to this notion of 'politics of visibility', confronting it with 'politics of invisibility' to explain how the colonial government simultaneously advertised some of these flagship hospitals for Africans, in particular Léopoldville's *Hôpital des Noirs*, yet also aimed to conceal it from public sight in the local cityscape.

art facilities offering medical care to the colonized, the Belgian colonial state emphasized its philanthropical aims and legitimized its colonial rule to Belgian audiences and the international scene. Especially in the last two chapters of this scale, this advertised effort of colonial healthcare was certainly a genuine ambition. Nevertheless, these complexes were also destined to exert the 'dark side' of 'machines à guérir' and 'biopower,' as their design facilitated control, supervision, or segregation.

Despite its popularity, the application of a Foucauldian framework in the colonial context has met with increasing criticism. In the article already cited above, Mark Crinson, for instance, has warned that the philosopher's 'claims over-reach themselves' and that he fails to 'enquire into the deficits or failures of disciplinary power.'[57] Foucault's focus on spatial techniques of state power does risk disregarding the question of whether the state's various techniques of 'governmentality' were actually effective in enacting 'biopower' in a colonial context, as well as overlooking the ways in which colonized subjects – be it pupils, inmates, patients or citizens outside public institutions – contested power emanating from above.[58] Or, as architectural historian Sibel Bozdoğan has strikingly put it, 'power […] is not only about oppression but also and literally about empowerment.'[59] These critiques and observations are especially relevant for colonial hospitals, of which both the execution and the everyday reality often substantially differed from the underlying ambitions of a 'machine à guérir.' Yet, while colonial hospitals have been cited as prime examples of colonial 'miscarriages of Foucauldian disciplinary power, biopower, and modern technologies of government,' few authors have actually looked at the on the ground reality of these spaces in depth, although it was precisely here that colonial biopower was most explicitly enacted.[60]

This *small* scale sets out to do so. To study the everyday realities of colonial hospitals, the vast scholarship within postcolonial literature on the 'agency' of the colonized – or their 'ability to act or perform an action'[61] – can offer a valuable point of departure. Authors engaging with this notion generally share the aim to emphasize that colonial reality was not only shaped by top-down state processes, but also the direct or indirect result of the actions of the colonized. Despite

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57. Mark Crinson (2013, p. 3). A similar critique has been formulated by Legg (2007a, p. 267).

58. For a discussion of critiques on Foucault stemming from Subaltern Studies, see Legg (2007a, pp. 275-282).

59. Sibel Bozdoğan (2001, p. 10).

60. This quote stems from an article by Jiat-Hwee Chang which was a direct response on Crinson's (2013) critique on the Foucauldian framework. Chang argued that while Foucault's notion's entails important pitfalls, we should not disregard it as a relevant theoretical scaffolding. In this PhD, I largely follow Chang's argument, deploying Foucault's framework as the starting point to which I complement alternative narratives of e.g. (African) agency.
Numerous authors have scrutinized how biopower was transplanted and adapted to various tropical and colonial contexts. See e.g. Hunt (2016); Arnold (1993); Hunt (1999); M. Vaughan (1991). The few authors that have explicitly zoomed in on colonial hospitals include Chang (2016, pp. 94-128); Scriver (1994, pp. 387-421); Harrison et al. (2004) and M. Jones (2001).

61. Ashcroft, Griffiths, and Tiffin (2000, p. 6).

this shared interest, scholars have highlighted various aspects of 'agency.' Often inspired by the seminal work of James Scott on 'everyday resistance,' several authors have understood agency mainly as forms of grassroots 'contestation.'[62] Despite its merits, this approach has been criticized not only for overly romanticizing 'ordinary people' as 'smart and crafty rebels', but also for overly politicizing mundane practices.[63] In response, authors from various disciplinary backgrounds have pointed out that the everyday actions of the colonized cannot only be understood through a binary framework of control and contestation. Instead, as Benoit Henriet points out, colonial subjects often 'merely tried to work "the system…to their minimal disadvantage."'[64] This alternative take on 'agency' thus not only emphasizes resistance, but also practices of 'elusion,' 'negotation,' 'reframement,' and even collaboration – albeit often enforced.[65]

The **small** scale complements a Foucauldian reading of colonial hospital infrastructure with this lens of agency. It adopts a case-study approach and confronts the political, medical, and architectural original ambitions behind three mediatized colonial hospitals with traces of everyday reality in these medical sites. While the *Hôpital des Noirs* of Boma was advertised as a 'machine à guérir' in order to counter international critique on the harsh Congo Free State regime, it mainly served to cover up ongoing violent everyday practices in and around the hospital, and its architectural execution quickly proved little more than window-dressing. The *Hôpital des Noirs* of Léopoldville – which would later become the already mentioned *Hôpital Mama Yemo* – was perhaps the most explicit example of a pavilion typology hospital in Congo, and was portrayed in contemporary media as a spotlessly clean, well-controlled medical environment. Its everyday reality, however, was much more messy and complex, as due to budgetary shortages and logistical problems, its management had to improvise and rely on hybrid forms of governance in which African agency proved influential. Lastly, as a multi-story complex of which the design followed the post-war stylistic emergence of 'tropical modernism', the *Hôpital des Congolais* of Elisabethville marked a new architectural form of the 'machine à guérir.' Designed by a private architect, its plans and drawings were mediatized as the paragon of the progressive Belgian medical model colony. In reality, however, only a fraction of the design was ever completed, as tensions between the private architect and the public services, but also local persistent segregationist beliefs, severely hampered its realization.

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62. J. C. Scott (1985, 1990); Yeoh (1991, 2003).
63. Eckert and Jones (2002, p. 8).
64. Henriet (2015, p. 340).
65. Beeckmans and Brennan (2016); Myers (2003); Schler (2008). While 'elusion' as form of African agency surfaces less in this PhD, it was certainly important in Belgian Congo's history of healthcare, as Hunt (1999, 2016) has shown. For a historiographical overview of 'agency', see e.g. the edited volume by De Bruijn, Van Dijk, and Gewald (2007).

Image 5 . Contrasts between Kinshasa's *Hôpital Ngaliema* and *Hôpital Mama Yemo*

Across many cities of the DRC, the same contrasts in hospital infrastructure depicted here reemerge. These are rooted in the colonial period, when hospitals for Europeans - realized according to much higher construction standards - were separated from those for Africans - often designed similar to barracks.

Above: *Hôpital Ngaliema,* 2010, Marc Gemoets.
Below: *Hôpital Mama Yemo,* 2015, Kristien Geenen.

**Medium**: Racial segregation and urban hospital infrastructure

After my first impression of the _Hôpital Mama Yemo_ during my stay in Kinshasa in 2016, I passed by the _Hôpital Ngaliema_, the city's former medical complex for Europeans situated a few kilometers away. Even though both hospitals were constructed during the colonial interbellum, the imposing façades and grandiose interiors of the latter provide a stark contrast with some of the dilapidating pavilions of _Mama Yemo_. Such disparities between hospital infrastructure are, however, anything but exceptional in the Democratic Republic of Congo, and can often be traced back to the country's colonial period, as much of its still operational hospital infrastructure was built during colonial times. In almost every urban center, Europeans and Africans had distinct hospital buildings that were officially off limits for the other, and that were often not only miles apart, but were also characterized by harsh differences in comfort, hygiene and medical equipment.

This separated colonial hospital infrastructure reflected broader logics of racial segregation which lasted well until the end of colonialism, and had become widespread during the interbellum. By then, segregationist beliefs had spread to Belgian Congo through multiple international conferences, in which urban planners, architects, doctors and heads of colonial public health departments from various colonies had come together to exchange ideas and best practices of colonial urban planning.[66] At these conferences, the African body became 'pathologized,' as specialists in urban hygiene pointed to Africans as the main carriers of tropical diseases, especially malaria.[67] The positivist convictions so characteristic of colonialism, were omnipresent at these conferences, as contemporary doctors believed that it was 'possible to banish disease […] by managing the environment and restructuring space using scientific principles.'[68] Urban planning was hailed as the panacea of tropical ills, and by the end of the 1920s, Belgian colonial officials had become convinced that to protect the public health of European inhabitants, colonial cities had to be racially segregated.

The conclusions of these conferences were at the time considered the result of apolitical, scientific gatherings of purely technical experts of urban hygiene and urban planning. In reality, however, they were far from objective and served highly political purposes. Not only was scientific rigor often lacking, colonial authorities – which were often comprised of the very same experts and personnel who

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66. Numerous authors have published on international networks spreading racial segregation in colonial urban planning. While early authors such as Robert Home (1997) and Odile Goerg (2003) have mainly highlighted the diffusion of ideas within colonial empires, more recent studies have shown that racial segregation also spread across language and colonial barriers. See e.g.: Bigon (2014); Bigon (2009); Beeckmans (2016).

67. M. Vaughan (1991, p. 10). As Phillip Curtin (1985, p. 604) has shown, European doctors and hygienists had scientifically established and spread the erroneous 'fact' that 'that mosquitoes preferred African to European blood.' As a result, the proximity of Africans implied a healthcare threat for Europeans, and spatial segregation was often proposed as the ideal measure to combat these healthcare risks.

68. Yeoh (2003, p. 86), quoted in: Njoh (2012, p. 205).

attended these conferences – eagerly deployed these recommendations of urban sanitation to realize their already existing political agenda of racial segregation. Surely, European medical anxieties about contagion by Africans were very real, but segregationist logics were just as much driven by deeply ingrained racialized prejudice many European inhabitants fostered towards Africans. Colonial state propaganda actively reinforced this racial xenophobia by emphasizing the allegedly peculiar primitivism of the Congolese "Other." Africans were depicted and thought of as primitive and thus inferior, less prone to hygiene and inherently inept for an urban, sanitary lifestyle.[69]

Be it for medical concerns, xenophobic anxieties, or both, the 'segregation mania' – as urban historian Carl Nightingale has aptly termed it –rapidly spread across the colonial world.[70] In Belgium Congo, too, it 'evolved from an improvised practice into an institutionalized policy,' and almost all larger towns and cities of the colony implemented some form of racial segregation.[71] This new policy was perhaps best encapsulated by an idealized urban template that circulated from the beginning of the 1930s within the colonial administration. A prominent member of the Public Works department, engineer-architect Réné Schoentjes, had drawn up this 'schéma d'une ville congolaise' as a blueprint for all Congolese segregated cities.[72] A neutral zone, often referred to as the *cordon sanitaire*, was to separate *la ville européenne* from the *cité indigène*. The distance a malaria-carrying mosquito could cover on his own officially defined the width of the neutral zone, in order to prevent contamination of the European population by the African inhabitants. The camp-like grid pattern of the African part was 'orientées dans le sens des vents dominants' and positioned upwind from the European parts of town, again to hamper contagious mosquitos flying over from the pathologized *cité indigène*.[73]

This intricate relationship between segregationist colonial urban planning and medical science has spawned an extensive body of literature. As said, historian Maynard Swanson's work on the 'sanitation syndrome' is pivotal within this scholarship, as he was the first to describe how colonial authorities used and abused medical arguments in an 'imagery of infection and epidemic disease' to scientifically legitimize 'the creation of urban apartheid.'[74] After Swanson's pioneering work, numerous historians increasingly interpreted the colonial city through the binary lens of seemingly coinciding distinctions such as Colonizer/Colonized, European/African or White/Black. Such dichotomies were undeniably important in the imperial world, as contemporary colonial discourse

69. At the same time, the colonial authorities, in collaboration with the larger *sociétés*, actively pursued a policy to avoid so-called "poor whites" from the urban streetscape, since these were seen as contradictory to the racial hierarchy inherent to colonial society. See Vanthemsche (1999).

70. Nightingale (2012, p. 159).

71. Beeckmans and Lagae (2015, p. 205).

72. Schoentjes (1933). On the impact of this template, see also Beeckmans and Lagae (2015).

73. Schoentjes (1933, p. 571).

74. Swanson (1977, p. 387).
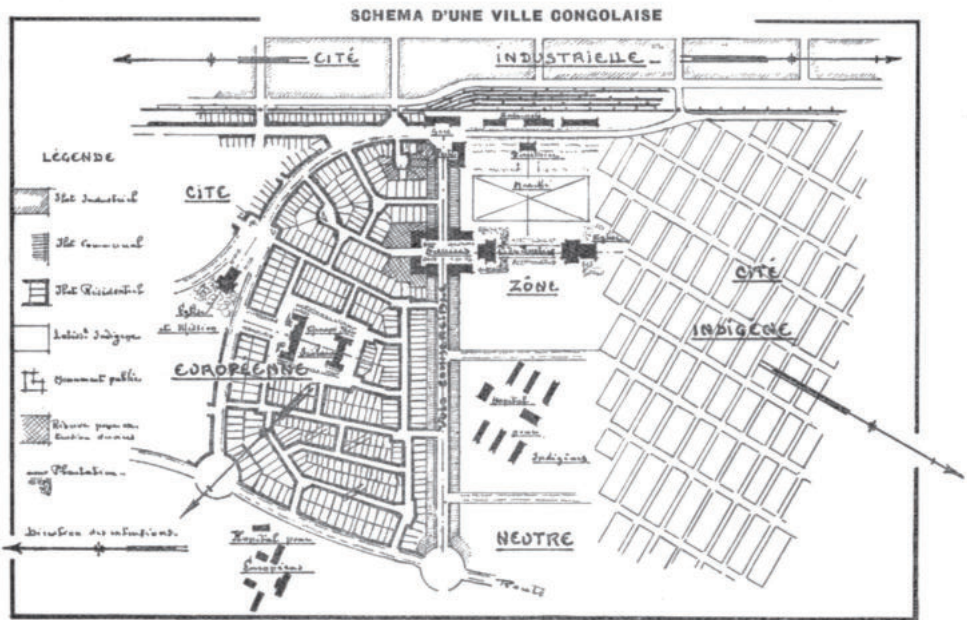
Image 6 . *Schéma d'une ville congolaise*

Designed by Belgian architect and urbanist Réné Schoentjes, this general template encapsulated the contemporary policy of racial segregation that was implemented across numerous cities of Belgian Congo. In his plans, Schoentjes located hospital infrastructure for Europeans next to the European neighborhoud, while the hospital for Africans - who were feared as sources of contamination - had to be positioned within the *cordon sanitaire.* Schoentjes, 1933, p. 250.

constructed these 'binary oppositions' to establish and perpetuate the 'violent hierarchy on which imperialism is based.'[75] Even though this binary thinking has been foundational to postcolonial studies, other, more nuanced historical research has pointed out that while these dichotomies provide a clear-cut theoretical framework, they also obscure the much more complex colonial reality. Reducing the colonial city to a strict dual structure glosses over the importance of 'ambivalent spaces of the colonial encounter' and the relevance of various hybrid groups that mediated between colonizer and colonized as colonial 'middle figures.'[76] Several authors have questioned the extent to which colonial racial segregation was as strictly implemented as originally planned. While Odile Goerg has offered nuanced accounts of racial segregation in the French colonial empire, architectural historians such as Johan Lagae, Sofie Boonen and Luce Beeckmans have countered the all too simplistic binary understanding of the colonial city

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75. Ashcroft et al. (2000, p. 19).

76. Hunt (1999, p. 2).

with a more fine-grained description of Belgian Congo's urban spaces.[77] Although the urban planning of Elisabethville, the colony's second largest city, for instance, closely followed segregationist logics, 'fissures dans le "cordon sanitaire"' nevertheless existed.[78] Not only did the overnight presence of African domestic servants in the European neighborhood challenge racial segregation, the presence of numerous Indian immigrants and 'blancs de second rang,' including Greek, Portuguese and Jewish merchants, also reveals the city's surprisingly cosmopolitan character that cannot be fully explained through a binary framework alone.[79]

Belgian Congo's colonial hospital infrastructure offers a valuable entry point to further study and highlight the complexities of colonial urban society beyond all too simplistic binary classifications. At first glance, medical infrastructure in Belgian Congo neatly reflected the strict colonial racial hierarchy. Not only were hospitals for Congolese separated from those for Europeans, which were much more spacious and luxurious, their location within the urban tissue was also neatly defined in contemporary urban templates such as the one designed by Réné Schoentjes.[80] And yet, hospitals for both Congolese and Europeans may have also functioned as liminal spaces of encounter across racial divides. Private contacts between white doctors and African patients, but especially between African staff and sick white bodies in need of nursing and help, potentially unsettled the classic colonial hierarchy. These interactions, and the jobs and education offered in these medical facilities may have provided African medical staff with unforeseen opportunities for empowerment and socio-economic mobility.[81] Exploring hospitals as liminal spaces of encounter was one of the original ambitions of this PhD. Unfortunately, despite the initial hypothesis that hospital spaces allowed contact between various groups across the colonial hierarchy, a suspicion underpinned by earlier academic work,[82] it has proven disappointingly hard to substantiate these claims.

Nevertheless, the chapters that deal with hospital infrastructure at the urban, *medium* scale still expose other ways in which colonial healthcare, and colonial urban society in general, cannot be fully understood through the simple dichotomies of colonized versus colonizer. In the first chapter on the early colonial period, I zoom in on hospital infrastructure in Boma, the capital of the Congo

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77. Beeckmans (2013b, pp. 245-312; 2016); Beeckmans and Lagae (2015); Goerg (1998); Goerg, Huetz de Lemps, and Pinol (2012).

78. Lagae, Boonen, and Liefooghe (2013, p. 247).

79. Boonen (2019, pp. 41, 296-330).

80. Segregated healthcare infrastructure also common in other colonies, see Chang (2016, pp. 94-128); Scriver (1994, pp. 388-394).Moreover, as urban plans published by Luce Beeckmans (2013b) from Dar es Salaam and Dakar indicate, hospitals for Africans were often also located within the neutral zone.

81. The life story of medical assistant Paul Bolya, who was an active voice in the decolonization process and later became a prominent politician in independent Congo, is particularly revealing here. See Sabakinu Kivilu (2005).

82. See especially Hunt (1999). For a particularly inspiring discussion of segregated hospital policies in the different context of Canada, see Lux (2016).

Free State and Belgian Congo until 1929. Anxieties for the health of Europeans in the tropics were incredibly prominent in colonial discourse at the time. This fear of the 'White man's grave' has led to the common assumption amongst historians that early colonial hospital infrastructure predominantly focused on the health of the colonizer, while neglecting the needs of the colonized. These beliefs are certainly not all wrong, but discussions regarding the funding and urban location of Boma's hospital for Europeans reveal that colonial authorities were in reality little concerned with the health of European *colons*, and prioritized other, practical, or economic issues instead. The second chapter on the interbellum zooms in on the colonial history behind the already mentioned *Hôpital Ngaliema* and the *Hôpital Mama Yemo*, respectively the former hospital for Europeans and Africans in Léopoldville, the capital of Belgian Congo from 1929 onwards. The former provides a classic example of how colonial authorities conducted architectural 'politics of visibility,' as it was destined to become a flagship hospital that symbolically represented the colonial state. The hospital for Africans, however, which had already been constructed before the implementation of the *cordon sanitaire*, was situated on the "wrong," European side of this neutral zone. As a result, the authorities aimed to conceal the hospital as much as possible from public, European sight, implicitly conducting an opposite 'politics of *in*visibility.' Still, as I will argue, implementing these binary 'politics of in/visibility' was not without issues.[83] The last chapter zooms in on hospital infrastructure in Coquilhatville in the post-war period. It explores how a new, progressive policy called the *politique de rapprochement* – which aimed to unify healthcare infrastructure for Europeans and Africans and was mainly advocated from the remote Brussels Ministry of Colonies – became severely watered down on the ground, as local policy makers often were persistent proponents of racial segregation.[84] Nevertheless, fissures in racial segregation did start to appear in Coquilhatville, as various groups of the city's non-European population increasingly demanded recognition as a distinct social stratum within the city's hierarchy, appealing for preferential healthcare treatment and access to the prestigious hospital for Europeans.

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83. I will return to this concept of politics of visibility and invisibility under 2/M.

84. That racial hierarchies remained well in place until the end of colonial rule, is for instance exemplified by the fact that Congolese medical assistants faced an increasingly rigid glass ceiling: their pay was not only limited, their courses had also been dialed back in order to ensure a more clear-cut distinction between African assistants and European doctors. See Sabakinu Kivilu (2005).

_Large__: Colonial state power and territorial healthcare_

Seven years before the Berlin Conference, where Europe's major powers gathered to divide Africa, and King Léopold would procure the Congo basin as his personal colony, he had already secretly contacted the famous Welsh journalist and explorer Henry Morton Stanley. He officially charged him with the construction of a road along the first unnavigable part of the Congo river, but when the monarch also told Stanley to enforce land contracts onto local chefs and erect trading outposts at strategic points along the _fleuve_, the journalist quickly realized he was paving the way for a future colony.[85] When he and his crew moored with the steamboat _l'Espérance_ at the plateau of Vivi, their first stop along the Congo river, they utilized dynamite to blow their way through the rocky steeps to get to the top. With his usual tinge of pompous self-glorification, Stanley wrote in his travel accounts how it earned him his famous Kikongo nickname: 'From the same motive that the name Africanus was given by the Romans to Scipio, they called me Bula Matari, "Breaker of Rocks."'[86] Throughout the colonial period, both Belgian administrators and Congolese inhabitants 'widely employed the term as a synonym for the state', and the power it exerted.[87] While to the Congolese, the name 'signified terror,' the image pleased Europeans, as it suggested the 'crushing, relentless force' of their colonial state.[88]

In his famous book _The African colonial state in comparative perspective_, historian and Congo-expert Crawford Young has mobilized the metaphor of the rock-breaking white adventurer to characterize and conceptualize the African colonial state. For him, 'in the symbolism of Bula Matari the colonial state is stripped naked' and the quintessential African colonial state is revealed as the 'purest modern form of autonomous bureaucratic autocracy.'[89] The Bula Matari exercised a coercive authoritative control which, reinforced by a firm belief in white racial superiority, 'freed the state from responsiveness to its subjects to a remarkable degree.'[90] In order to pursue its 'raison d'état' of power accumulation and extractive politics, it implemented a 'progressive institutionalization of its apparatus,' deploying a panoply of governmentality techniques, including segregation, data-collection, sanitary control, and extensive policing. According to Young, it were these Foucauldian techniques, and the way state personnel

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85. Biographie coloniale belge (1948, p. 867).
86. Stanley (1886, p. 237). However, already in 1938, a prominent member of the Public Works Department, Devroey (1938, p. 847), published a memoir on the Belgian Congolese road network, in which he contended that actually 'c'est, selon toute vraisemblance, à un de nos compatriotes que Stanley doit son titre immortel de Boula Matari.' According to Devroey, it was not Stanley, but Belgian engineer Louis Valcke who had first wielded dynamite and became known as _Bula Matari_.
87. Young (1994, p. 1). The synonym also resurfaces in the numerous popular testimonies and recollections of Belgian former _colons_ and administrators. See e.g. Raymaekers (2018); Barbier et al. (2013).
88. N'kanza (1976, pp. 232-234, 390) in Young (1994, p. 1).
89. Young (1994, p. 160).
90. Young (1994, pp. 75, 159).

had become 'interchangeable parts in the colonial apparatus,' all dutifully collaborating to execute the seemingly monolithic state's objectives, that allowed the Bula Matari to reach its peak during the interbellum.[91]

Stemming from various disciplinary backgrounds, several authors have agreed with or built on Young's central argument that coercive and complete domination marked the essence of the African colonial state. Just as Young implicitly did, these publications often explicitly draw from the Foucauldian concept of governmentality. Philosopher Achille Mbembe for instance, provocatively argued that colonial states exercised 'necropolitics' rather than biopolitics, by instrumentalizing race to 'dictate who may live and who must die.'[92] Early scholarship focusing on colonial policing has similarly stressed how colonial governments were quintessentially defined by violent forms of governance, 'penal excess,' and racialized power asymmetries.[93] Historical studies of Congo, of which many have argued that the Leopoldian rubber atrocities took on almost genocidal proportions, have further consolidated the metaphor of the Bula Matari.[94]

Yet, although impactful and thought-provoking, Young's depiction of the African colonial state has met with some well-deserved criticism. In a sharp book review, political historian Bruce Berman piercingly formulated the two main critiques Young's work has received. On the one hand, he pointed to the fact that 'the recurrent metaphor of Bula Matari […] is profoundly misleading. It is based on a generalization of the experience of the Belgian Congo, which probably most closely approximated in practice the irresistible force it implied, but is quite unrepresentative of the experience of other colonial powers.'[95] It is undoubtedly true that Young's general description of *the* African state is oversimplified and glosses over important, colony-specific characteristics, but this last remark is also of importance because it reveals the particular position of Belgian Congo within postcolonial (political) studies as the unquestionable example of coercive colonialism. The origin of this may be found in the intensively debated red rubber atrocities under the Leopoldian regime, which are often confounded and lumped together with the quite different colonial reality of Belgian Congo. According to Congo-expert Nancy Hunt 'the Free State has been rescripted as a – or the – worst example' of the colonial experience, and while 'such scripting is not all wrong,' it has led to a 'resulting reduction of Congo's history in public memory

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91. Young (1994, pp. 159, 160).
92. Mbembe (2003, p. 11).
93. Brown (2002, p. 403).
94. On Congo's red rubber history, the most famous and impactful example of this body of literature is undoubtedly Adam Hochschild's *King Leopold's Ghost* of 1998, but others have published similar accounts of the Congo Free State period. While these publications do not treat the African colonial state as their central object of inquiry as Young did, the effect of their writings has endorsed Young's claims. See Hochschild (1998), but also Taussig (1984).
95. Berman (1997, p. 563). A similar two-fold critique has been formulated by Frederick Cooper (2005, p. 51).

(and much African history teaching and texts).'[96] The Bula Matari has thus also impacted current public debates on the legacy of Belgian colonialism, and is often mobilized in a way similar to the persistent myth of the Belgian model colony. As Matthew Stanard has argued, the metaphor 'continues to colour our basic understanding of […] Congo's independence,' which is all too often still depicted as a the abrupt transition from an authoritarian government that kept everything 'more or less orderly in the Congo pre-1960,' to 'the lifting of Belgian tutelage —however undemocratic and repressive—that unleashed chaos.'[97]

On the other, Berman acknowledges a more general problem with Young's Bula Matari, which 'depicts not the reality of state power, but instead the way in which colonial officials wanted the state to be perceived as omni-scient and omnipotent by their African subjects.'[98] Several other researchers have since joined this view, highlighting the actual implementation and effects of colonial policymaking rather than its underlying ideals or intents. Perhaps the most explicit critique on the Bula Matari comes from historian Gillian Mathys. In her research on colonial border-making in eastern Congo, she mobilizes 'the metaphor of a crippled Bula Matari to impersonate the weaknesses of the colonial state.'[99] As she argues, frontier zones were not only loci of coercive state control, but also of African evasion and economic opportunity. By zooming in on how border policies 'were brought into practice on a local and regional level,' she shows that the Belgian colonial state was often unsuccessful in its attempts to straightjacket African mobility or trade, and that state power was not as omnipotent as the metaphor of the Bula Matari suggests.[100] Similarly, renowned historian Frederick Cooper has argued that the aim of colonial governments to extend state presence across their colonial territory was seldom successful, and that, in reference to Foucault, 'power in the colonial state was more arterial than capillary.'[101] Researchers from other disciplinary backgrounds have made comparable claims, discussing how Congolese inhabitants constantly escaped colonial sanitary control,[102] or arguing with regards to colonial policing that one of the key characteristics of what makes colonial power colonial, is precisely the 'essential weakness of colonial empires.'[103]

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96. Nancy Hunt (2016, p. 3).

97. Stanard (2018, p. 145). Popular media have indeed reproduced such stark views of the Bula Matari, see e.g.   https://www.knack.be/nieuws/magazine/domineren-pour-servir-het-belgische-koloniale-bestuur/article-normal-1401561.html?cookie_check=1618410924 [accessed: 14 april, 2021].

98. Berman (1997, p. 563).

99. In doing so, Mathys (2014, pp. 3, 12) follows Berman, by saying that 'Whilst colonial states indeed attempted to implement a hegemonic project, they were rarely entirely successful in doing so.'

100. Mathys (2014, pp. 3-4).

101. Cooper (1994, p. 1533).

102. Hunt (2016). See also Lyons (1992), who has shown how Congolese escaping from and revolting against the harsh conditions of these lazarettos impacted colonial policymaking.

103. In doing so, they've challenged the earlier scholarship on colonial policing. See Brunet-La Ruche (2012, p. 14); De Nys-Ketels (2020); Henriet (2015). On colonial policing, see the historiographical overviews of Blanchard, Bloembergen, and Lauro (2017, p. 14); Tiquet (2018); Debos and Glasman (2012).

Through the lens of hospital infrastructure, the aim of this dissertation on the **large** scale closely coincides with the call of Mathys and these other authors to revise the 'hegemonic nature' of the Bula Matari.[104] On the one hand, I confront the original scope of each of the three hospital construction programs – the *Plan Renkin*, the *Plan Franck*, and the *Plan Décennal* – with several mappings of the network of healthcare infrastructure that was actually realized. While genuine ambitions to improve the health of the rural population undergirded all three of these building campaigns, they were driven by other political motives as well. Hospital building campaigns sought to parry external critique and legitimize colonial rule, ensure a healthy African labor stock, and increasingly extend state presence and biopower across the colonial territory. Once again, these ambitions were tied with the colonial state's architectural 'politics of visibility,' especially in the post-war period. Not only were these vast construction programs advertised in colonial propaganda through selective yet impressive statistics and maps, rural healthcare centers were often designed with a recognizable architecture that was reproduced across vast regions in Congo. This recurring style underpinned state presence, as dispensaries and rural hospital infrastructure were to function as antennas of colonial authority that ensured that government biopower reached even the most remote villages of the colonial hinterland. Nevertheless, mapping out how these construction programs were effectively implemented, shows that while Belgian Congo's *réseau hospitalier* continuously expanded and was undeniably vast by the eve of independence, there was still a considerable gap between the initial medical and political ambitions of each of these building campaigns, and their effective implementation.

On the other, I explore the reasons why this gap existed, or why the colonial administration repeatedly struggled to fulfill its ambitions. I do so by looking into the techniques of governmentality which Young deemed so vital to the development of the Bula Matari, and by engaging with the work of a number of architectural and urban historians who have already zoomed in on such techniques. Through the notions of the 'scaffolding of empire' or the 'building of building,' Peter Scriver and Jiat-Hwee Chang, for instance, unpacked the panoply of administrative instruments, bureaucratic reforms, architectural tools and knowledge networks which the British Public Works Department deployed to establish a colonial built presence across its colonial empire.[105] Both have drawn particular attention to the circulation of architectural type-plans and design standards as 'technologies of distance' to realize colony-wide construction campaigns, which were often comprised of rather repetitive infrastructural projects.[106] The main focus of this scholarship, however, has remained on central branches of colonial Public Works Departments, from where building standards,

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104. Mathys (2014, pp. 3-4).
105. Chang (2016); Scriver (2007b)
106. Chang (2016, p. 10).

codifications and type-plans were centrifugally disseminated.[107] Following the few authors such as Ibiyemi Omotayo Salami or Tania Sengupta that have looked at local implementations of central architectural policies in the 'periphery', this *large* scale not only studies the central development of type-plans for hospitals in Belgian Congo, but also explores how such top-down 'technologies of distance' landed in, and were adapted to, the often messy colonial reality on the ground.[108] A close reading of the colonial archives surfaced the surprising importance of improvisations as part of the everyday bureaucratic *modus operandi*. Mundane techniques such as copying procedures, erasable crayons or identification codes of type-plans, were used in makeshift ways to respond to practical challenges of budgetary deficits, logistical problems or shortages of staff. These practical challenges also led to local staff – ranging from architects and engineers to policymakers and doctors – recycling and readapting type-plans from across the colony to local conditions of climate, topography, or healthcare. This reality of a messy *modus operandi* stands in stark contrast with the picture painted by Young of a monolithic, autocratic, and well-oiled Bula Matari, and offers a new perspective on how the Belgian colonial government operated and improvised in order to execute its plans of a medical model colony.

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107. See for instance also the work of Milheiro and Burke (2017); Santiago Faria (2014) on the Portuguese Public Works Department

108. Salami (2016); Sengupta (2010, 2020).

**Architecture**: Transnational design knowledge and local building practice.

The main emphasis throughout the three scales discussed above is clearly on understanding the 'politics of architecture,' which forms the object of debate of a burgeoning strand within architectural history. This growing body of literature has covered two diametrically opposed forms of architecture – which could be summarized as 'dignified' versus 'efficient' architecture – and which are also reflected across the scales in this PhD. On the one hand, ushered by postcolonial studies that emerged from the 1980s onwards, architectural historians have started to focus on the 'dignified parts of the state': the symbolic public buildings that served to represent a 'highly visible and politicized image of power.' Archetypical examples of these are for instance a head of state's residence, or a parliament. [109] For these iconic public architectures, and especially 'in the colonial environment, the choice of an architectural style, the arrangement of space within a building, and the decision to erect a particular structure all testified to a vision of empire.'[110] On the other hand, a number of architectural historians have more recently started to question whether these highly exceptional, representational edifices offer the most relevant lens to study 'politics of architecture.' They've argued that it was instead the 'amazingly widespread, if somewhat banal and mundane, array of structures' such as warehouses, medical outposts, or administrative offices, that was much more important to everyday colonial statecraft.[111] Moreover, these 'efficient parts of the state' – buildings bordering between architecture and infrastructure[112] – were in fact a prerequisite for the 'dignified.' As architectural historian Tania Sengupta discussed, the construction of 'iconic architecture' was 'propped up by the practice of power through this machinery' of mundane auxiliary spaces.[113] Although these efficient facilities are perhaps less visually appealing, it was thus nonetheless through this 'neglected ordinary colonial built environment' that the 'capillary power' of the colonial state seeped through the most.[114] From the _**small**_, where I focus on some of Belgian Congo's most mediatized and 'dignified' hospital projects, to the _**large**_, which explores the 'efficient' or 'anonymous' architectures

109. Chang (2016, p. 10); B. Anderson (1991), quoted in: Lagae (2007, p. 71). On the 'dignified parts of the state', see Lagae and Toulier (2014); Van De Maele (2019, p. 12); Van De Maele and Lagae (2017).

110. Metcalf (1999), quoted in: Lagae and Toulier (2014, p. 47). Perhaps the most widely discussed case of how colonial governments deployed architecture as a tool to materialize this 'vision of empire,' is the urban planning and the representational architectures designed by architect Edwin Lutyens in New Delhi, the British colonial capital of India. See e.g. Metcalf (1989); Morris and Winchester (1987). For an example in the French colonial context, see Wright (1991). For an example in the Belgian colonial context, see e.g. Lagae (2007, pp. 84-90).

111. G. A. Bremner, Lagae, and Volait (2016, p. 236).

112. This has also been called 'grey' or 'anonymous architecture.' G. A. Bremner et al. (2016, p. 236); Lagae and Toulier (2014, p. 48)

113. Sengupta (2010, p. 15).

114. See the already mentioned work of Chang (2016, p. 11); Milheiro and Burke (2017); Salami (2016); Santiago Faria (2014); Scriver (1994, 2007a, 2007b); Sengupta (2010); but also of urban historians Boonen (2019, pp. 383-500) and Kidambi (2007), who's work discusses, but also goes beyond the visible politics of colonial architecture. Some authors have worked on both sides of the spectrum: see e.g. Çelik (1997, 2008), or the work of geographers Legg (2007b) and Myers (2003), though he still mainly focuses on representative architecture and urbanism.

within the colony-wide healthcare network, over the ***medium***, which bridges both, colonial hospitals clearly form an incredibly rich and varied typology to study this entire spectrum of the 'politics of architecture.'

Nevertheless, colonial hospital architecture cannot exclusively be explained as the mere and direct result of power and ideology. In a colonial context, such politics are easily overemphasized, often at the expense of the influence architecture exerted as an autonomous discipline. Already two decades ago, architectural historian Sibel Bozdogan called to balance out both perspectives and write 'accounts of buildings that do not privilege either the politics of architecture or the autonomy of the architectural object, but are more interested in the connections and slippages between the two.'[115] Johan Lagae has made a similar argument, warning that by 'reducing the role of architecture and planning to that of a mere instrument of power,' architectural historians risk 'erasing the degree of disciplinary autonomy through which designers always respond to political, social, economic and cultural conditions.'[116]

Even though the design of hospitals as 'machines à guérir' was undeniably shaped by political dynamics, as explained above, hospital architecture and planning nevertheless has a long history of being such an autonomous, albeit interdisciplinary, design field.[117] The development of hospital planning as a discipline went hand in hand with the international emergence of the pavilion typology. This foundational period of hospital planning has sparked the interest of multiple (architectural) historians, who have written numerous studies on the shifting typological designs of hospitals throughout history. Most of the earlier publications in this scholarship predominantly explained these shifts as an almost direct result of changes in medical science. The work of sociologist Lindsay Prior's, in which he describes hospitals as 'essentially archaeological records which encapsulate and imprison within themselves a genealogy of medical knowledge' is perhaps the culmination of this viewpoint, but architectural historians have expressed similar claims.[118] In his seminal historical overview of building typologies including the hospital, Nikolaus Pevsner, for instance, attributed a considerable role to doctors who implemented medical insights in hospital design.[119]

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115. Bozdogan (1999, p. 212), quoted in: De Raedt (2017, p. 31).

116. Lagae (2012a, p. 116).

117. As Van De Maele (2019, p. 7) has already argued, building on sociologist P. Jones (2009, p. 2525): 'The notion of interdisciplinarity does not imply that the field of architecture should be considered as being totally dependent on forces external to the profession.' Rather, it implies acknowledging the specific and sometimes autonomous dynamics of architecture as a broader 'field of cultural production.'

118. Prior (1988, p. 93).

119. Pevsner (1976, pp. 139-158). For such a view within the Belgian context, see Hennaut and Demanet (1999, p. 80), who tellingly describe hospital architecture as 'le visage de la médecine.' Such a predominantly medical explanation of hospital design can still be found in the more recent works of Verderber (2010) and Verderber and Fine (2000).

Other architectural historians have put more emphasis on the role of the architectural discipline instead. Jeremy Taylor, for instance, argued that although developments in medical science were the driving force of innovations in hospital design, architectural networks and specialized periodicals played a crucial part in disseminating this knowledge across the European continent.[120] As later research confirmed, already from the mid-19th century onwards, specialists stemming from various professions – engineers, architects, and doctors alike – increasingly exchanged ideas across borders on the organization of hospital wards, the optimal ways of ventilating, or the use of hygienic building materials.[121] Specifically architectural developments, and in particular the emergence of Modernism in the early 20th century, also greatly impact hospital planning, and vice versa. While hospital architecture increasingly reflected the functionalist design approach of the Modernist movement, it equally shaped this new architectural idiom through the 'machine aesthetics' of hospital and sanatorium design.[122]

While historians have thus widely described how hospital planning developed into an autonomous discipline characterized by interdisciplinary knowledge exchange between the architectural field and medical sciences on an international scale, questions regarding hospital planning outside the West are remarkably absent from these debates.[123] Nevertheless, a growing number of architectural historians are exploring how architecture as an autonomous discipline circulated to the colonial context – although they have seldom focused on hospital planning specifically. Earlier studies within this burgeoning body of literature explained flows of expertise merely through the paradigms of 'export' or 'diffusion.'[124] They argued that architectural knowledge was exclusively developed in the Western 'center,' from which it was diffused across the colonial 'periphery.'[125] Moreover, even until today, many of these publications focus mainly on bilateral connections between metropole and its colonies, while overlooking important transnational connections that exceeded conventional colonial borders.[126] Later authors, however, adopted different, complementary approaches. On the one hand, some focused on the impact of 'aggregate actors' or lesser known architects or even

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120. Taylor (1997). For an earlier publication focusing on the role of architectural journals for the emergence of hospital planning: King (1966).

121. See e.g. Adams (2008); Allegaert et al. (2004); Kisacky (2017); Wagenaar (2006) for an overview primarily focused on respectively Canadian, Belgian, American and European hospital design. For a discussion on the impact of various professions on hospital design, see Forty (1984).

122. Borasi, Campbell, and Zardini (2012); Campbell (2005); Colomina (2018, p. 10).

123. As an exception, see Baisset, Garel, and Mésenge (2010).

124. Hall (1988).

125. Nasr and Volait (2003b).

126. G. A. Bremner et al. (2016, p. 241) have argued that the fact that these bilateral ties are disproportionately discussed may be explained by the 'strong historiographic bias from the Anglophone and Francophone "center"' of current-day academic scholarship.

professionals from a non-architectural background.[127] As an example of what architectural historians Ricardo Agarez and Nelson Mota have tellingly termed 'bread and butter' architects, these actors often operated behind the scenes as global 'architect-consultants' or technocrats, yet were nevertheless incredibly influential in spreading their personal expertise across imperial borders.[128] On the other hand, other authors have highlighted the impact of alternative networks established through international institutions, intercolonial conferences, and direct connections between colonial administrations. Planners, architects and other actors shared a wide variety of know-how: views on (segregationist) urban planning, technoscientific expertise on how to construct in the tropical climate, as well as new stylistic idioms such as 'tropical modernism' were exchanged through a growing number of interweaved transnational networks.[129] If this scholarship has increasingly shown how the discipline of architecture developed into a 'global culture' that also spread through the colonial world, several authors have also started to explore how architectural knowledge was actually locally adapted to the colonial context. Arguing how earlier paradigms of 'export' or 'diffusion' fall short to fully capture these local dynamics, they've instead proposed to adopt a perspective of 'import.' In doing so, they shift 'the spotlight to the importers of ideas and their local realities,' emphasizing not only local adaptations by (European) spatial planners, but also the agency of African subjects in the production of the colonial built environment.[130] Yet even though several scholars have explored these issues of global knowledge exchange and local 'import' through particular building typologies – including schools, military barracks, or housing[131] – colonial hospitals have received little attention within this debate.

The chapters under ***architecture*** address this hiatus. It focuses on colonial hospital infrastructure as a starting point to discuss the exchange of transnational design knowledge and its adaptations in local building practices. This will underline how colonial (hospital) architecture was not only shaped by 'politics of architecture,' but also the product of (hospital) architecture as an international and autonomous discipline. As a result, the theoretical framework used in

127. While Stanek (2012, p. 299) developed the term 'aggregate actors' for his work on knowledge transfers from socialist countries to Africa during the post-colonial period, the term is equally relevant here, especially considering the impact colonial doctors had on hospital architecture.

128. Agarez and Mota (2015, p. 3). On '"global experts" off radar' see the editorial of the specialized issue in *ABE Journal* by Lagae and De Raedt (2013), as well as the work of Beeckmans (2014); De Raedt (2017); Glendinning (2008); Lee (2015).

129. On exchange of segregationist urban planning, see e.g. Bigon (2014); Home (1997). On intercolonial conferences and the impact of international institutions, see Bigon (2014); Glendinning (2009). On technoscientific exchange and the spread of tropical modernism, see e.g. Chang (2016); Jackson (2013).

130. Nasr and Volait (2003a) have made a compelling argument for such an 'import'-perspective. This has been picked up by various authors, who have proposed various terms to describe local dynamics of 'import' such as 'editing' or 'translation.' See e.g. Akcan (2012); Beeckmans (2013a).

131. See Beeckmans (2017); Chang (2016); De Raedt (2017). Again, the work of Chang (2016, pp. 94-128); Scriver (1994, pp. 387-421), and to a lesser extent of Harrison et al. (2004) and M. Jones (2001), form an exception.

architecture is no longer drawn from postcolonial literature – which was the case in the preceding scales – but is instead rooted in the architectural discipline itself. Each of the three chapters starts from one (or two) theoretical notions that were particularly pertinent to the specific timeframe of the chapter, and that reflect long-standing debates within architectural theory: the *primitive* and the *simple*, the *type*, and the *user*.[132] Since this PhD remains a history of colonial hospitals, and it is neither my aim nor ambition to provide a profound contribution to the complex theoretical discussions behind these multi-layered notions. Instead, I deploy the architectural background of these concepts as a starting point to address particular themes and to highlight the relevance of colonial hospitals to both the burgeoning scholarship on transnational knowledge exchange, and to the vast historiography that has dealt with typological shifts in hospital design.

In the first chapter on the early Belgian colonial period, I explore the use of building materials in colonial hospital construction under the *Plan Renkin*. This chapter takes a general, discursive approach, showing that while contemporary colonial propaganda disregarded traditional building materials as too *primitive* or *simple*, such building materials were in reality widely deployed, as they were cheaper and more readily available than European materials. As such, I not only aim to show that Western guidelines on building materials were redefined within the colonial context, but also how traces of African building agency linger through in archival sources, suggesting that Africans, too, added know-how to local building practices. The next chapter zooms in on one particular case, tracing the incremental design process and *typological* innovations behind the *Clinique Reine Elisabeth* in Coquilhatville. The hospital was clearly based on contemporary guidelines of hospital planning in the metropole, where the pavilion typology hospital had become institutionalized as the best practice. Nevertheless, various local actors – doctors, architects, and government officials alike – were not only influenced by this metropolitan expertise. They also tapped into less conventional networks of intercolonial knowledge exchange to acquire alternative sources of inspiration, 'translating' these into important typological innovations that tailored the design of the *Clinique* to the tropical and colonial conditions of the town.[133] The last chapter discusses the *Hôpital des Congolais* in Léopoldville, an unrealized hospital project designed by the fairly well-known Belgian architect Georges Ricquier. In the post-war period, Western hospital planning increasingly emphasized the importance of a *user*-oriented design approach. As colonial powers,

132. Each concept will be explained more thoroughly in the according chapter. These concepts have been derived from two publications by architectural historian Adrien Forty: the three lemma's on 'simple,' 'type,' and 'user' in his book *Words and Buildings*, and his contribution on 'The Primitive: the word and the concept' in the edited volume on *Primitive: Original matters in architecture*. See Forty (2004, pp. 120-131, 249-255, 304-311; 2006). As a sidenote that I will not be able to develop here: most of these theoretical discussions are focused on what I've earlier described as 'dignified' architecture. In this sense, the use of these theoretical notions also suggests that including 'efficient' architecture is not only relevant for architectural theory, but might in fact have profound effects on the way some of its long-standing notions are defined and understood.

133. I will explain this concept of architectural historian Akcan (2012, pp. 3, 4) in more detail under 2/A.

including Belgium, sought to implement a colonial rendition of the welfare state, these new user-oriented hospital typologies were also imported through various networks of knowledge exchange to Belgian Congo. In this colonial context, however, hospital architects such as Ricquier were faced with difficult challenges of how to adapt these hospital guidelines, which had been originally developed for Western users, to the African population, which was not yet "Western," but could and should "westernize" over time.

Sources and methodology

My visit to the Mama Yemo hospital sketched out in the beginning of this introduction was part of a longer fieldwork research spread out over the autumns of 2015 and 2016, in which I collaborated with anthropologist Kristien Geenen. During this time, we undertook four weeks of ethnographic and oral history research at the *Clinique Reine Elisabeth* in Mbandaka – former Coquilhatville – and spent about four months and a half in Kinshasa, where we studied the Mama Yemo hospital and conducted research in local archives. While my PhD does not focus on the current-day situation of former colonial hospital infrastructure in the DRC – even though Kristien and I did publish various texts on the matter – this fieldwork was nevertheless pivotal for this dissertation.[134] This not only because – as architectural historian Zeynep Çelik already pointed out – 'it is crucial for a historian to understand the physicality and the geography of the specific city under study,' but also simply because Kinshasa's *Archives Nationales du Congo* (ARNACO) contains an extensive amount of archival documents of the Belgian colonial state.[135]

While I've made some briefer excursions to various other archival collections,[136] this PhD has particularly been a close reading of the archives of the Belgian colonial government, of which a smaller contingent is still kept in Kinshasa, but of which the lion's share is stored in the *Archives Africaines* (AA) at the Brussels Ministry of Foreign affairs. The division of a state archive across two cities over six thousand kilometers apart, and the wide qualitative disparities in storage keeping between them, immediately lays bare immediately lays bare what many other researchers and historians have already stressed before: archives and archival research are faced with 'limits.'[137] Some of these are very practical in nature and relate to what John Manton has described as the 'curatorial and custodial frontier.'[138] Sources decay over time, become undecipherable, or dissolve on touch. Some archival institutions can go to enormous lengths to safeguard their archival material, while others lack the will or the means to fight the mice, rats, moist and mold that plague their paper records. Some archival custodians protect the confidential and the classified at all costs, while others turn a blind eye, putting the door to the secrets of their archival burrows ajar. These 'technologies of creation, preservation and use' – as historians and anthropologists Carolyn Hamilton, Verne Harris

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134. See De Nys-Ketels, Lagae, et al. (2019); Geenen and De Nys-Ketels (2021), and see the own work of Kristien Geenen (2019) on Mbandaka. I will return extensively on the reasons why I chose not to focus on the current-day situation of the DRC in the epilogue.

135. Lagae (2006).

136. Other archives consulted were the photo-collection of the Royal Museum for Central Africa in Tervuren (MRAC); documents of the *World Health Organization* (WHO) in Geneva, sources stored in the *Documentation and Research Centre on Religion, Culture and Society* in Leuven (KADOC); numerous contemporaneous publications on e.g. hospital planning across multiple university and state libraries; and personal files of Georges Ricquier in the *Archives d'Architecture Moderne* in Brussels.

137. Achile Mbembe (2002).

138. Manton (2016, p. 33).

and Graeme Reid describe these 'processes by which the record was produced and subsequently shaped' – were also at play during our archival research.[139] The archives of the Belgian colonial state have known a particular trajectory: while the records of the colonial Ministry were always produced and stored in Brussels, the local archives of the *Gouvernement Général* (GG) and its provincial branches were shipped to Belgium on the eve of independence during 'Opération Archives.'[140] These files, however, were not only often messy, poorly inventoried and in a state of decay, they were also incomplete. Due to personal motives of local archivists, not all documents were moved, and the remaining files were eventually stored in either the central ARNACO in the capital of Kinshasa, or in provincial branches, in which conditions of storage and maintenance are often poor due to shortages of staff and budget.

Yet apart from these very pragmatic restraints, colonial archives also have other, perhaps more important 'limits' a researcher should be wary about. Almost all of these sources – reports, correspondence, decrees, inventories, maps, etc. – are official documents that were written and maintained by European colonial state officials. As such, they are far from neutral. They not only reflect the violent, hierarchic, or racist ideologies of those who produced it, they also functioned as 'technologies of rule' in themselves. They served colonial statecraft through 'knowledge production' in order to 'make society legible' and facilitate 'state functions of taxation, conscription, and prevention of rebellion.'[141] The voices of colonial subjects, as a result, are often absent in the colonial archive, and this is especially true for the Belgian colony, where Africans were never truly allowed to climb up to those higher-ranked administrative posts that produced archival records. In response to the inevitable biases embedded without colonial sources, Ann Laura Stoler has argued that 'scholars need to move from archive-as-source to archive-as-subject.' Following what she has termed 'reading along the archival grain,' this PhD also sets out to understand how the archive was produced, and what this in itself may reveal about the ambitions, ideologies and everyday workings of the colonial state.[142]

Such a reading of the archive implies 'attending not only to colonialism's archival content,' but also to its 'peculiar *form* or *context*.'[143] Inconspicuous annotations and standardized subscripts in the margins of letters may give clues about the provenance and aim of this correspondence, while the particular fund in which documents are stored provides insight in the specific administrative branches originally involved in producing these sources. Yet 'reading along the grain' also

139. Hamilton, Harris, and Reid (2002, p. 9).
140. Bérengère (2015, pp. 423-426). For more on the history of the Belgian colonial archives, see also Deslaurier (2003); Van Grieken and Van Grieken-Taverniers (1957).
141. J. C. Scott (1998, p. 2); Stoler (2002, p. 87).
142. Stoler (2002, p. 87; 99).
143. Stoler (2002, p. 87; 90), original emphasis.

entails including different *types* of sources that at first glance may seem ordinary or irrelevant. As I show in this PhD, an attention to the formal textures of an array of seemingly mundane documents such as repetitive copies of plans, inconspicuous budgetary records or banal construction reports, may in fact provide a new perspective on the actual everyday *modus operandi* of the colonial administration.

As an architectural historian aiming to write a PhD on hospital infrastructure in colonial Congo across different scales, themes, and periods, graphic documents such as plans, maps, and photographs have played a particularly pivotal role throughout my research. They not only helped to understand the 'grain' of the archive and the colonial administration that produced it more thoroughly, their visual nature also offered opportunities for an inverse reading, allowing to surface alternative traces of African agency that are often absent in textual sources. While visual historian Christraud M. Geary has argued how the margins and (unintended) background details of colonial photography provide a unique prism to 'read against the grain,' urban and architectural historians have described how maps and plans can in fact reveal social processes, population movements, or narratives of African agency and everyday life that remain hidden in other sources.[144] Yet combining, representing, and analyzing such a wide array of graphic and textual sources also necessitates an alternative methodology: mapping. As both a 'tool of understanding' and 'communicating,' this new practice of cartography goes beyond the bland (re)production of maps. It implies not only the final visualization of what can be a multi-layered set of media, but especially entails an explorative methodology that allows to foster alternative insights by graphically processing and reprocessing the source material.[145]

Whereas throughout this PhD, various colonial maps, plans and photographs were 'read against the grain' to highlight narratives of African agency, this mapping methodology was especially used in the three chapters of the *large* scale. In each period, I've deployed a recurring template of colonial Congo to both map out the hospital infrastructure constructed under the three respective hospital construction campaigns, and to chart the way architectural hospital plans circulated across the vast colonial territory. While the final mappings are portrayed in these

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144. Geary (2003, p. 39). Other inspiring examples of how colonial photography can offer insight into the colonial everyday reality are e.g.: Boonen and Lagae (2015b); Edwards (2001); Fivez (Forthcoming). I will return more thoroughly on this issue in 1/A, which draws heavily on photographs of early colonial hospital infrastructure to surface traces of African agency. For examples of how maps and plans can provide opportunities to 'read against the grain,' see e.g. Boonen and Lagae (2015a); L. Vaughan (2018).

145. Abrams and Hall (2006); Hein and van Mil (2020, p. 152). As Coomans, Cattoor, and De Jonge (2019, p. 9) indicate, thanks to the 'spatial turn' of social sciences, and the increasing interest in new, digital technologies, 'innovation in mapping methods […] is flourishing.' New mapping methods are being used across disciplines as different as social geography, historical landscape analysis and urban planning. Although urban and architectural histories of colonialism have perhaps not made a similarly intense use of mapping as a methodology, this is slowly changing, perhaps due to the influence of digital humanities. See e.g. Boonen (2019); Boonen and Lagae (2015a); Fivez (2020), as well as the ongoing research project under architectural historian Alice Santiago Faria (https://www.buildingtheportugueseempire.org/ [accessed: 9 June, 2021].

chapters, these were always the result of a long process of incorporating and (re) visualizing a variety of sources of information, including the *Rapports Annuels* of the colonial state, various pieces of correspondence, multiple hospital plans, budgetary sheets, colonial photographs, and contemporary aerial photographs. This iterative process served not only to finetune the final visualization, but also as a heuristic method to "think with" with these various sources. As I explain more thoroughly in Annex 1, repeatedly readjusting and redrawing my own temporary maps and cartographic databases helped me to sift through, inventory, and geographically situate an abundance of archival plans and documents. Once familiar with these sources, iterative mapping unlocked important new insights. It allowed to identify connections between disparate hospital designs across the colony, to trace trajectories of type-plans and recycled designs, and, finally, to surface a modus operandi of the colonial administration that I could not have grasped through textual sources alone.

1885 - 1921

Shedding a tainted stigma

1/INTRO
Hospital infrastructure as colonial legitimation

Due to the 'red rubber' atrocities, the Congo Free State has become known and popularized in history as 'a – or the – worst example' of imperial violence.[1] Historians have described King Leopold's reign as one of 'holocaust dimensions,' and portray the monarch as the personification of evil.[2] Nevertheless, the exact magnitude of the atrocities remains debated, and various scholars have added nuance to this perhaps slightly sensationalist storyline, questioning the alleged genocidal proportions of the regime, or arguing to 'dispense with catastrophe as our [only] scaffolding' of analysis.[3] Still, there is a clear consensus that the regime was undeniably brutal. Its politics of resource extraction and exploitation caused an uncountable number of deaths, led to the displacement of entire villages, spread tropical disease, and violently destabilized the livelihoods of numerous Congolese.

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1. Hunt (2016, p. 3). On the 'red rubber' atrocities, see the pioneering work of Vangroenweghe (1985).

2. For an accessible (historiographical) overview of the debate on genocide and the Congo Free State, see Verbeeck (2020). The word 'holocaust' was popularized by Hochschild (1998) in *King Leopold's Ghost*, a work that has presented Congo Free State's history to a wider audience, albeit in a somewhat sensationalist way. This later led to polemics on the term in the New Yorks Review between him and Jean-Luc Vellut, in the wake of the new exhibition of the Royal Museum of Africa in Tervuren in 2005. See https://www.nybooks.com/articles/2006/01/12/in-the-heart-of-darkness/ [accessed: 30 May, 2021].

3. Hunt (2016, p. 4). For an earlier example of such nuancing, see Stengers (1989). There is no clear consensus amongst historians on the magnitude of the demographic decline, as 'l'historiographie oscille continuellement entre des chiffres « minimalistes » et « maximalistes ».' See Sanderson (2020); Verbeeck (2020, p. 52).

Although these brutalities are now without question, the violent history of the Congo Free State has long been forgotton or downplayed, and 'l'image flatteuse d'un Léopold accomplissant une « mission civilisatrice » en Afrique centrale a longtemps dominé la mémoire publique.'[4] The roots of this rather distorted public memory can be traced back to multiple consecutive propaganda campaigns of Belgium's early colonial period – in which healthcare occupied a central role. If the administration of Belgian Congo widely proclaimed its philanthropic intentions as a colonial power, it was King Leopold himself who had trumpeted this propagandistic message of philanthropy as a way to procure the colony in the first place.[5] In 1876, Leopold organized the International Geographic Conference as an attempt to convince the international political scene that his ambitions in Africa were exclusively fueled by scientific interest or Christian humanitarianism. Or, as the King stated in his inauguration speech: 'ouvrir à la civilisation la seule partie de notre globe où elle n'ait point encore pénétré, percer les ténèbres, qui enveloppent des populations entières, c'est une croisade digne de ce siècle de progrès.'[6]

The conference eventually led to the inauguration of the *Association Internationale Africaine*, a front organization officially founded to geographically explore central Africa and set up scientific outposts. However, the organization mainly functioned to provide Leopold a 'cover of political legitimacy,' since off the record, the monarch had commissioned Stanley to establish a first political foothold on Congolese soil.[7] A few years later, Europe's major political powers convened at the Berlin Conference in 1885 'to "manage" the ongoing process of colonization in Africa,' and 'avoid the outbreak of armed conflict between rival colonial powers.'[8] With a foothold established on the ground, the King held a much stronger bargaining position, which, together with Leopold's promises of the future Congo Free State as a *mission civilatrice* and a haven for free trade, proved crucial in securing a part of the 'magnifique gateau africain.'[9] A few strokes on a map, and Congo, a territory as huge as Western Europe, was allotted to the Belgian monarch as his personal piece of the African pie.[10]

4. Verbeeck (2020).

5. See Vanthemsche (2008, pp. 27-28); Newman (2004, p. 154); S. Cornelis (1991).

6. Quoted in Jan Vandersmissen (2008, p. 16), who discusses how the sentence became one of the most widely quoted citations in Belgian colonial history.

7. Newman (2004, p. 157). At the same time, Guy Vanthemsche (2008, p. 28) has stressed how the King's diplomatic maneuvers did not follow a clearly predefined plan, but 'the conditions and often unexpected turn of events' slowly yet almost haphazardly led to the founding of the Congo Free State.

8. Craven (2015, p. 32).

9. As he allegedly would have called the continent. See Wesseling (1996, p. 119).

10. However, this precise cutting of the cake – the exact definition of borders and territories – 'didn't happen at Berlin,' but on the ground, in Africa. See e.g. Katzenellenbogen (1996, p. 21); Mathys (2014).

In the beginning, however, the Congo Free State did not turn out to be the goldmine the King and his entourage had hoped for.[11] As his personal investments and debts accumulated, the King eventually decided to implement a new policy of taxation which compelled local populations to handover substantial quotes of ivory or rubber to the colonial government. This not only marked a resurgence of the colony's economy, but most importantly the start of the brutal system of exploitation that became so synonymous with the Congo Free State. Foreign critics such as the British publicist E.D. Morel or British consul Roger Casement increasingly denounced these red rubber atrocities. They did so not only through travel reports, but especially through the use of explicit photographs of mutilated Congolese, which 'produced horrified public attention' and quickly became the 'ammunition in the growing propaganda war against Leopold's Congo.'[12] This forced the monarch to launch an extensive countercampaign, in which he both renounced foreign criticism as a British ploy to take over the colony, and attempted to convince critics of the fact that the Congo Free State still remained a predominantly philanthropic endeavour. Initially, this campaign was conducted through classic methods such as the publication of numerous celebratory articles in propagandistic periodicals or the organization of colonial exhibitions.[13] Yet, as international critique continued to grow, the King decided to decree a *Commission d'Enquête*, which would inspect various outposts across the Congolese territory, and of which the King expected would vindicate his regime.

Within this early colonial propaganda, healthcare and hospital infrastructure occupied a crucial role. This forms the starting point of the first two chapters of this Part, which discuss the hospitals for Africans and Europeans in Boma respectively. Although this was the capital of the early Belgian Congo, and its most important center, it was still a relatively minor town, and archival sources on the city during this period are rather scarce.[14] As such, the first two chapters are not rigidly limited to either the *small* scale of the hospital, or the *medium* scale of the urban, but rather work in tandem, providing a concise overview of hospital infrastructure and healthcare policies during the early colonial period. In the *small* scale, I focus on the *Hôpital des Noirs* in Boma, the then capital of the Congo Free State. The King had explicitly charged the construction of this hospital to serve as an 'institution-modèle' in order to impress the *Commission d'Enquête*

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11. For an accessible overview of the socio-economic history of this period, see De Roo (2020, p. 41).

12. Hunt (2016, p. 3).

13. Healthcare had already been mobilized in colonial propaganda before this countercampaign, yet to a much lesser extent. While the periodical of *Le Mouvement Géographique* published multiple articles on the sanatorium in Boma and on sleeping sickness missions, more explicit examples of colonial propaganda can be found in the periodical of *Le Congo Illustré*. It not only included biographical notices of various colonial doctors such as Dr. Allart and Dr. Etienne, or notes on the benevolent work of the 'Soeurs de Charité' but also a piece from 1895 on 'Le Service de Secours Médicaux,' written by Dr. Dryepondt . See *Le Congo Illustré,* 1893, 2(15), pp. 114-115 ; 2(16), p. 121 ; *Le Congo Illustré,* 1894, 3(4), p. 25 ; *Le Congo Illustré,* 1895, 4(12), pp. 91-92.

14. According to Côme (2005, p. 149), when Congo Free State was taken over by the Belgian Government in 1908, the town counted only 262 Europeans and an estimated 4000 Africans.

when it passed through Boma. Nevertheless, a closer look at the everyday reality and effective execution of this model hospital shows a different picture. Not only did violent tensions occur in and around the hospital, its buildings also showed signs of decay shortly after completion. As such, Boma's *Hôpital des Noirs* forms perhaps the most clear-cut example of how the colonial government in Congo explicitly deployed hospital infrastructure to further its propagandistic message and legitimize its regime, rather than as a genuine attempt to improve public healthcare in the colony.

In the ***medium*** scale, I shift attention to the capital's hospital infrastructure for Europeans, and in particular its urban location and funding. As I will explain more thoroughly below, historians have described how around the turn of the 19th century, Africa was widely depicted and considered in colonial discourse as a 'White man's grave,' in which tropical diseases and the harsh climate demanded a heavy toll on the European body. This portrayal not only helped to render the endeavors of pioneering colonizers all the more 'heroic.'[15] According to much of the historical scholarship, it also provided a scientific justification for colonial powers to focus mainly on colonial healthcare services and infrastructure for Europeans. One would expect – and as most historians have generally assumed – that in colonial Africa, and in particular in the capital of the Congo Free State – the prime example of a colony focused on economic exploitation and extraction – the fear for the 'White man's grave' would dominate healthcare policies and mean that hospital infrastructure for European agents was heavily prioritized. This, however, was not entirely the case. In contrast to the hospital for Africans, which was state-funded – albeit rather as propagandistic window-dressing than as an actual effort to cure – the colonial government did not fund or construct healthcare infrastructure for Europeans. Instead, the *Association congolaise et africaine de la Croix-Rouge,* a parastatal organization, filled in the gap, financing, constructing and equipping European healthcare infrastructure. Moreover, despite multiple requests and warnings from local doctors about the medical dangers of the urban surroundings of the *Hôpital de la Croix Rouge*, it was never moved, since colonial policymakers prioritized other urban matters over securing a sanitary location for the European hospital.

Although concise and working with scarce archival sources, these first two chapters nevertheless provide glimpses into the often challenging construction and everyday reality of the limited hospital infrastructure realized under King Leopold's regime, and the ways in which this infrastructure was portrayed and deployed within colonial discourse. Together, these two shorter scales form an introductory backbone to the following two, and more extensive, chapters of this Part, which focus on the early years of Belgian Congo, when the colony had already been transferred to the Belgian state. Just as the first two scales,

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15. As pieces in *Le Mouvement Géographique* explicitly termed this endeavor. On this periodical, see 1/S.

both chapters pay particular attention to the way hospitals were mobilized in the colonial discourse and propaganda that emerged after the Belgian takeover of the colony, as the new Belgian colonial administration desperately sought to shed the tainted stigma of Leopold's red rubber policies. Despite the King's extensive countercampaign, the international reputation of the Congo Free State had only continued to deteriorate. Not only foreign critique had been on the rise, even Belgian citizens had started raising concerns about their monarch's colonial exploitation politics. To make matters worse, even though Leopold had decreed the *Commission d'Enquête* himself, the Commission's final report turned out unexpectedly critical of the regime. [16] Eventually, Belgian politicians convinced the aging and increasingly obstinate King to cede his Congo Free State to the Belgian state by 1906, and two years later, Congo became an official Belgian colony.[17] The new Belgian colonial administration quickly sought to curb the tarnished reputation inherited from Leopold's former regime, and convince critical colonial powers such as Great-Britain and France that the new colonial government followed a much more humanitarian path than its predecessor.

The most prominent voices of this new colonial discourse were the first Belgian Minister of Colonies Jules Renkin and King Leopold's nephew and future successor, Prince Albert.[18] In contrast to King Leopold, who had never set foot on Congolese soil, both visited the new colony shortly after its transfer to the Belgian state. During these travels, they were heavily affected by the appalling lack of infrastructure and the ravages the former regime had caused. Especially Prince Albert condemned his uncle's red rubber policies, as notes in his travel diary reveal:[19]

> *Depuis sept ou huit ans, on n'a plus rien consacré d'argent à aucun travail d'installation ou d'amélioration: tout à la récolte du caoutchouc et de l'ivoire, beaucoup d'argent réclamé en Belgique, rien à dépenser pour le Congo. Le travail en Afrique, l'or à Bruxelles, voilà la devise de l'État Indépendant.*

But also during public speeches and events, the Prince and the Minister criticized the former regime, advocating a changed, more humanitarian approach to colonial policymaking. At the symbolic opening of the new colonial museum in Tervuren, for instance, Jules Renkin stressed how for his new government, 'le point de vue économique reste subordonné au progress moral, but suprème

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16. On the impact of the commission, see Bevernage (2018).

17. Interestingly, King Leopold had already inscribed such annexation in his personal testament in 1890. At the end of his life, however, 'the aging monarch, becoming increasingly isolated, was stubborn' in clinging on to his personal colony. Vanthemsche (2008, p. 51).

18. Another important milestone was the development of a Colonial Charter, which functioned much like a colonial constitution and was destined to 'mettre fin aux abus qu'avait produits l'absolutisme.' For an extensive discussion on the Colonial Charter, see Stengers (1963, p. 217). On the annexation, see also Vanthemsche (2012, pp. 38-42).

19. Quoted in Vandewoude (1990, p. 21). As Guy Vanthemsche (2008) has shown, Jules Renkin expressed similar critiques in internal correspondence.

de la colonisation.'[20] Similarly, the Prince explicitly questioned his predecessor's regime and underlined the new, philanthropic path that had to be adopted by the Belgian colonial administration:

> *On colonise de nos jours – non pas comme autrefois en important des armes, des liqueurs et en exploitant un pays à outrance – mais en introduisant, dans des contrées reculées et primitives, des mœurs plus dignes sanctionnées par la morale chrétienne, en y répandant les découvertes de la science et les merveilles de la technique moderne. Un peuple colonisateur, qui comprend ses vrais intérêts, a souci avant du bien-être des populations soumises à sa tutelle.[21]*

At the same time, however, the internationally tainted stigma of the Congo Free State also spawned fears of foreign interference. Anxiety – founded or illusory[22] – of Great Britain, France or Germany taking over the Congolese territory would long haunt colonial government officials. These fears not only reinforced the new, humanitarian tone of colonial propaganda, which had to prove that even 'without external help,' Belgium was able to 'make Congo into a model colony where the administration was more efficient than anywhere else' and 'where the native was well-treated.'[23] Rather paradoxically, it also marked the beginning of what historians have aptly termed the 'Great Forgetting' or a 'collective amnesia.'[24] An apologetic eulogy of King Leopold emerged, in which the monarch was presented as a 'visionary genius' who brought the light of civilization into a continent of darkness, and in which international critique on Congo's history of red rubber was dismissed as strategic maneuvers concocted by foreign nations vying for a piece of the Congolese cake.

Belgian Congo's later reputation of a model colony thus found its roots in these early years, when a colonial discourse emerged that paradoxically denied the atrocities that had taken place under Leopold's former regime, while also stressing its humanitarian *mission civilatrice* as a clean break with the Congo Free State.' In the *large* scale, I trace how the new colonial administration sought to implement these new policy changes in terms of healthcare infrastructure across the territory. Colonial Minister Jules Renkin launched a vast infrastructural program which

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20. Jules Renkin, quoted in: Wauters (1910, p. 236); Chamber of Representatives, 28 October, 1909; See also Stanard (2012, p. 52).

21. Quoted in Wauters (1910, pp. 236-237).

22. As critics on Leopold's red rubber had been mainly British, Great Britain suspiciously monitored Belgian colonialism, and only officially recognized Belgian Congo by 1913. France, on its turn, held pre-emptive purchasing rights in case of a Belgian colonial bankruptcy, while Germany and Belgium were involved in several border disputes in the early 1900s. The plausibility of a real and complete take-over by any of these colonial powers, however, remains questionable. See Vanthemsche (2008, pp. 31, 97, 100); on the German border disputes, see also Mathys (2014, pp. 115-147).

23. Vanthemsche (2008, p. 101). Minister Renkin (1908, p. 3), for instance, stated that while abuses had occurred in Congo, 'une nation est une grande famille, et dans des familles on n'aime pas à étaler ses tares. […] La question de l'organisation intérieure de la Belgique et des colonies ne regarde que nous; nous aurons à la résoudre en pleine indépendance en vertu de notre souveraineté.'

24. Hochschild (1998); (Vanthemsche, 2008, p. 36).

included the construction of an extensive hospital network. This, however, was an unprecedented endeavor, posing numerous challenges. Soon after the launch of the *Plan Renkin*, the new colonial administration was faced with the fact that the administrative structure it had inherited from the Congo Free State and that was necessary to buttress such a vast infrastructural program – which Peter Scriver aptly described as the 'scaffolding of empire' – was shaky at best.[25] On the one hand, the central governments in Brussels and Boma struggled to properly manage the logistic and administrative challenges that came with this *Plan Renkin*. On the other, local administrators seem to have (ab)used this lack of administrative supervision, often redeploying the funding and building materials originally intended for hospital construction for their own local building agendas. Nevertheless, with the development of a first set of standardized plans and several administrative innovations, this period would still prove an important learning ground for the later infrastructural programs to come.

The chapter on ***architecture*** delves deeper into the issue of local building materials in colonial hospital infrastructure. The hygiene and durability of building materials were increasingly considered as vital to a well-functioning 'machine à guérir' in contemporary Western hospital planning practices. Since healthcare played a major role in the propaganda effort of the Belgian colonial administration, the use of hygienic and durable materials was also increasingly stressed in colonial discourse. By portraying hospital construction in Belgian Congo as in compliance with the most up-to-date design principles, propaganda sought to convince foreign critics of Belgium's philanthropic colonial intentions. However, by re-reading a variety of colonial sources 'against their grain' – photography in particular – I argue that in reality, hospital infrastructure was often realized using traditional building materials which the same colonial propaganda widely condemned as too 'primitive' and thus too unhygienic for colonial hospital construction.[26] Through this re-reading, this chapter not only surfaces ambiguities and contradictions concerning building materials in colonial discourse, but also aims to raise questions about how colonial hospital construction was not the mere result of a direct 'export' or 'imposition' of Western hospital planning practices, but also of exchange and interaction in which the expertise of African laborers and patients may have been surprisingly influential.[27]

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25. Scriver (2007b).

26. On reading archival sources against and along their grain, see Gyan Prakash (1994, p. 1479); Stoler (2002, p. 100). See also the Introduction of this dissertation for a more thorough discussion.

27. The terms 'export' and imposition will be framed more thoroughly in 1/A.

Image 1 .

Although the original reason for which this series of photographs was taken remains unknown, they were likely part of King Leopold's countercampaign. Portraying an almost glistening hospital, especially the photograph above seems to highlight the contrast between this complex of Western medicine, and its seemingly empty Congolese surroundings, confirming the narrative of philanthropic Belgian healthcare brought into the African 'heart of darkness.'
Above: *ca.* 1905, MRAC, Office Coloniale, AP.0.1.3060.

1/SMALL

Healthcare infrastructure as counterpropaganda: Boma's *Hôpital des Noirs*

When foreign critique on the Congo Free State regime grew too loud to ignore in the beginning of the 20th century, King Leopold eventually ceded to the international pressure and set up a *Commission d'Enquête*. The delegation was comprised of three lawyers, who were tasked to verify or refute the allegations of red rubber atrocities. Even though Leopold himself selected the members, expecting them to exonerate his colonial regime, he avoided any unnecessary risk. Well aware of how vital healthcare infrastructure was for his regime's philanthropic reputation, he commanded his local administration to construct two important new hospitals for Africans in Boma and Léopldville, two major colonial centers along the Commission's planned itinerary. As Jean-Luc Vellut has already noted, both buildings thus featured 'parmi les institutions-modèles présentées à l'admiration du monde par la propagande de l'Etat.'[28] Even if the Commission would eventually turn out surprisingly critical of King Leopold's regime, the monarch's underlying intent to persuade the delegation of the quality of Congolese healthcare was nevertheless successful. Indeed, after visiting both buildings, the delegation praised the hospitals as part of the important infrastructural developments that had allegedly transformed the country into a modern, Western civilization:[29]

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28. Vellut (1992, p. 69).
29. Janssens, Nisco, and De Schumacher (1905, p. 8).

Ces hôpitaux établis dans les chefs-lieux […] donnent au voyageur l'impression qu'il parcourt, non cette Afrique centrale il y a un quart de siècle inconnue et barbare, mais un pays conquis depuis longtemps à la civilisation européenne. Et l'on se demande quel pouvoir magique ou quelle volonté puissante, secondée par d'héroïques efforts, a pu transformer ainsi, en peu d'années, la face de cette terre.

Especially Boma's *Hôpital des Noirs* received the praise of the members, who wrote that this 'superbe édifice en briques, entouré de constructions secondaires, réservées aux nègres atteints de maladies contagieuses, a droit à tous les éloges.'[30] A series of photographs from the hospital taken in the same year, further confirmed this image of an 'institution-modèle.' Although the exact purpose of these pictures remains unclear, they were likely part of the much larger propaganda campaign launched by King Leopold. The pictures convey the image of a spotlessly clean, and architecturally crisp complex, portraying the complex almost as a beacon that brought Western medicine into the Congolese 'Heart of Darkness. Through this colonial propaganda, the hospital thus functioned as one of the first 'dignified parts' of the colonial state's healthcare program, realized and visualized with the clear intent of furthering the King's political agenda.[31]

However, this architectural 'politics of visibility' – or how the state uses architectural methods to represent and cement its authority – was misleading,[32] and was focused rather on silencing foreign critique and persuading the Commission, than on providing genuine improvements in public healthcare. As I argue in this short introductory chapter, the hospital's reality stood in stark contrast with the façade of architectural luster and seemingly meticulous medical order it was concealed by. On the one hand, this becomes clear when taking a closer look at the architecture of the complex. Although its architectural design seemed to follow the latest insights in hospital planning, scattered archival sources suggest that its execution was in fact poor and mainly aimed at providing a short-term, yet visually pleasing solution. On the other hand, that the complex was not the 'institution modèle' colonial propaganda proclaimed it to be, also becomes clear when inspecting the everyday life in and around the facility. Not only was its internal organization marked by the violent inequalities characteristic of the colonial regime, the hospital's medical service also helped to camouflage and patch up abusive excesses that occurred outside its perimeter, across the capital.

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30. Janssens et al. (1905, p. 85).

31. Van De Maele (2019, p. 12).

32. As explained in the introduction, such 'politics of visibility' form a recurring theme within this dissertation, and will be explored more thoroughly in 2/M.

Everyday tensions in and around the capital's hospital

The most explicit example of the role the hospital played in covering up some of the excesses of the Congo Free State, can be found in what became known as the 'Moretus-affaire.' It took place in Boma's *colonie scolaire*, schools that 'belonged to the classic visual tropes in the colonial discourse of the *mission civilatrice*,' and allegedly brought the spoils of Western education to young Africans.[33] Officially, these were children freed from Arabic slave traders, but in reality, most of them had been captured kidnapped during the slave wars or ivory and rubber raids, sometimes more than thousand kilometers away from the capital.[34] After arrival in Boma, they were often in very poor physical condition, and the hospital's staff had to medically prepare the children before they could enter the *colonie scolaire*. There, they faced a severe disciplinary regime imposed by the school's principal, Moretus, a member of the Flemish Scheutist congregation. He utilized harsh punishments, locking the boys up in small isolation rooms or whipping them until they fell unconscious.[35] This regime eventually led to a major conflict between the colonial administration and the congregation. When the principal was interrogated, however, he confided to the police that he had only punished the children so severely because they performed 'immoral acts' with one another, and that he had reason to believe that the children were copying these acts after having been abused by members of the administration. The father superior of the Scheutist congregation confirmed this 'scandaleuse affaire de mœurs où pas un blanc mais beaucoup de blanc sont compromis,'to the local head of the state's justice department, warning that it weren't only 'de petits agents qui sont en cause.' Soon, however the British consul started to get word of the sordid affair. Fearing even more British critique on the Congo Free State, the school's principal withdrew his allegations, the justice department dropped the case and the injured children were quickly brought to the hospital where they were patched up and readied to return to school as quickly as possible. Even in a colony as coercive as Congo, the harsh punishments of the principal, and the possible transgressive sexual abuse of pupils by state officials was exceptional. Still, 'crossing the lines of civilized conduct was far from rare in Boma's white community,' and just as with the *colonie scolaire*, the hospital may have had a crucial role in camouflaging excess across the colonial capital, and covering them up to foreign, and especially British critics.[36]

33. Lagae (Forthcoming, p. 15). Although this book chapter has not yet been published, in it, Lagae builds on his earlier work on Boma. See Lagae (2015); Lagae, De Keyser, and Vervoort (2005).

34. Delathuy (1992, pp. 118-119).

35. Description and quotes based on the master's dissertation of Femke Buys (2007, pp. 133-157; 146).

36. When the *Commission d'Enquête* asked local Dr. Zerbini about the children's condition, the physician pointed to the difference in climate the children from around the Equator had to endure, shielding off the school's principal from external critique through medically founded arguments. See Buys (2007, pp. 103-104).

If the hospital staff had to patch up violence from the outside, the medical head of the complex was equally trying to put out fires on the inside. While he aimed to maintain a strict disciplinary regime, the colonial reality of limited budgets and violent tensions often forced him to resort to more improvised ways of hospital management. While archival sources that shed light on the everyday reality of the hospital are limited, the fragmentary correspondence of a short discussion that arose between the legal department and the medical service of the capital's *Gouvernement Général* is nevertheless revealing. The debate concerned two Congolese male nurses who 'ont brusqué et voulu enfermer un malade sous prétexte, qu'il ne se soumettait pas aux corvées qu'ils voulaient lui imposer.'[37] The patient was a sick soldier, who, as he declared to the *Chef de Police*, had been forced by the nurses to 'chercher de la viande derrière l'hôpital.' After he had gone once, he refused to do such chores again, arguing 'que j'étais malade et ne pouvais plus.' The two nurses then decided to punish the patient and lock him up, dragging him off the bed 'par les jambes.'[38]

This 'rixe survenue à l'hôpital des noirs, entre soldats et infirmiers' is instructive for several reasons.[39] Firstly, the hospital's management often struggled to maintain the strict discipline that was expected to reign in the hospital. Correspondence subsequent to the quarrel between the *Médecin en Chef* Dr. Heiberg and the head of the hospital further confirms this. The letter written by Dr. Heiberg reveals that this squabble was not the only 'désordre' that happened at the hospital, and that the hospital staff struggled to control these disturbances:[40]

> *Le directeur de l'hôpital semble complètement étranger à ce qui se passe dans les salles. Cependant il me parait que c'est à lui qu'incombe l'obligation de commander les corvées, et [...] de prescrire la mise en cellule des malades dangereux. J'émets l'avis que des explications doivent lui être demandées et qu'il doit être rendu responsable de tout désordre qui se produit dans les salles.*

Secondly, it reveals that tensions in colonial society not only ran between classic binary categories of colonized and colonizer. Although the colonial capital still was little more than a large colonial trading post, not only its European, but also its African population was diverse and cosmopolitan, as 'the local branch of the Force Publique, or colonial army, counted Zanzibaris, Haoussas and Bangalas among its ranks.'[41] The original spark for the row at the hospital between nurses

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37. AA/GG 16854, Note from *P.O. l'adjoint supérieur* to *Chef du Service Médical*, 17 August 1914.

38. AA/GG 16854, *Enquête Chef de Police*, n.d.

39. AA/GG 16854, Letter from *Médecin en Chef* Dr. Heiberg to *Médecin Directeur*, 31 August, 1914.

40. AA/GG 16854, Note from *P.O. l'adjoint supérieur* to *Chef du Service Médical*, 17 August 1914. The head of the hospital replied, grudgingly admitting that 'il se produit [...] de temps à autre des altercations entre infirmiers et malades et entre malades mêmes,' confirming that the hospital often fell short of the peaceful, well-disciplined environment propaganda suggested it to be. AA/GG 16854, Letter from *Médecin Directeur* to *Médecin en Chef* Dr. Heiberg, 4 September 1914.

41. See Lagae (Forthcoming, p. 5); Lagae et al. (2005); but also the presence of Nigerian and Bangala patients in: AA/H 843, *Copie textuelle de registre général du lazaret de Boma,* 1910.

and the soldier can of course no longer be pinpointed exactly, but such differing backgrounds may have fanned the flames of the argument.[42]

Lastly, it sheds light on how the management deployed both harsh top-down control, and improvised, more collaborative solutions to face the everyday struggles at the *Hôpital des Noirs*, a combination that foreshadowed the forms of 'hybrid governance' that would mark many medical centers in Belgian Congo during the interbellum.[43] With a limited budget available, the wages for the Congolese staff were limited to a minimum. Yet it seems the hospital management turned a blind eye when the 'infirmiers nègres' made do and 'réclamaient des « matabis » (pourboires)' from the patients when providing medical assistance.[44] The narrow budget drove the management to resort to patients for various everyday tasks to keep the hospital running. These not only included simple chores such as getting food from the storage room, cooking meals, or doing the laundry. Patients were also called on to execute more elaborate construction works such as building a new entry road, refurbishing the hospital's perimeter walls, or repairing the roofing of pavilions.[45] When patients refused, the head of the hospital could punish them by banning visits from family members, or by incarcerating them in a 'cellule de un à quatre jours.'[46] However, because these cells, built from *matériaux indigènes*, were often full or dilapidated, disobedient patients were regularly chained outside instead.[47] The practice of holding African patients responsible for the maintenance of their own 'machine à guérir' was not limited to Boma's hospital, but common across the handful of hospitals throughout the Congo Free State. Yet, while of course degrading and unhealthy in every of these hospital environments, it was in this particular hospital that these practices of improvised forced labor clashed even more brutally with the rhetoric of the 'institution modèle.'

Yet it was not only the everyday reality of the complex that was at odds with the image of the hospital portrayed in colonial propaganda. As the next section shows, while the hospital's design was extensively lauded in colonial periodicals, its architecture in reality proved only a short-term solution geared towards quickly silencing foreign critique, rather than a genuine attempt to construct a well-oiled 'machine a guérir.'

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42. Loyalty to one's own government service, and grudges between these administrative branches, may have also factored in here. As Lauro (2011, 2016) has shown, for instance, long-lasting rivalries divided the *Force Publique* and the *Police Territorial* until the 1950s.

43. More on 'hybrid governance' in 2/S.

44. Côme (2005, p. 186).

45. Suggesting that local building know-how may have influenced early colonial hospital architecture more than has been accounted for, as will be explored in more detail in this 1/A. AA/H 842, *Rapport du docteur Cammermeyer sur le fonctionnement de l'hôpital des noirs de Boma,* annexed to letter from *Vice-Gouverneur Général* Fuchs to *Ministre des Colonies* Renkin, 14 January 1911.

46. AA/H 842, *Règlement*, annex to note from *Inspecteur d'Etat,* 1 November, 1908.

47. AA/H 842, *Règlement*, November 1908.

A malfunctional 'machine à guérir'

> *Pour des soins à donner aux malheureux indigènes atteints d'infirmités physiques ou morales, rien ne laisse à désirer à Boma. L'hôpital pour indigènes est sans aucun doute le mieux et le plus solidement construit de tous les édifices de la capitale, voire du pays entier, à l'exception du fort de Shinkakasa dans le bas Congo.*
>
> *Il consiste en de vastes rangées de corps principaux, séparées par des cours macadamisées, le tout entouré d'un mur. Les bâtiments sont hauts, bien aérés et éclairés, et tenus dans un état de parfaite propreté. La salle d'opération et le dépôt mortuaire sont construits d'après les données et les principes hygiéniques et sanitaires les plus récents, le sol est dallé, les corniches sont semi-circulaires et il n'y a rien qui ne soit susceptible d'être lavé.*
>
> *Dans chaque section, des locaux isolés sont réservés aux malades atteints de la maladie du sommeil, la terrible affection qui a dépeuplé des districts entiers ; de la variole, devenue très rare, grâce à un excellent service de vaccination, et de toutes autres maladies infectieuses, cas chirurgicaux spéciaux, affections vénériennes, tuberculose.*

Published in 1904 in *Le Mouvement Géographique,* a popular geographic periodical focused mainly on Africa and Congo, this extensive description of Boma's *Hôpital des Noirs* conjures the image of the perfect 'machine à guérir.' The piece claimed that the complex was designed according to the latest practices in contemporary Western hospital planning. High, voluminous pavilions, separated from each other by internal courtyards, facilitated an optimal ventilation of the dormitories. The wards housed isolated sections for different tropical pathologies, minimizing the possibility of contamination between patients, while also allowing better control and oversight. The pavilions' interiors were equipped with easily cleanable materials and rounded corners, easily allowing the staff to keep the hospital spotlessly clean.[48] The architecture of the complex not only followed the latest hospital planning – at least according to the article – it also may have felt strangely familiar to the Belgian or European audience it was presented to. With its natural stone-cladding, rhythmically buttressed perimeter wall, accentuated white corners, rosettes and cornices, the medical complex could have reminded the readership more of the architecture of Belgian beguinages or cloisters than what they might have imagined resembled a hospital in tropical Congo.

Yet behind the portrayal of Boma's flagship hospital as a successful 'machine à guérir,' lies a more complex and multi-layered history. Balancing 'entre géographie et propaganda coloniale,' *Le Mouvement Géographique* was anything but a neutral magazine. Instead, its 'raison d'être', was to curb Belgian 'sentiments d'indifférence et d'hostilité à l'égard de l'oeuvre africaine de Léopold' and 'pousser les Belges à se lancer dans l'aventure coloniale.'[49] Moreover, since its launch in 1884, the King seems to have exerted a rather direct control on the periodical, and although his influence waned from the 1890s onwards, the magazine continued to be an

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48. This was a common practice in Western hospital planning, as explained in 1/A.
49. Henry (2008, pp. 3, 5).

Image 2 . *Hôpital des Noirs*
For over two decades, the capital's first hospital infrastructure for Africans had been the object of much critique . Especially the use of local building materials was disapproved as unhygienic, a theme that will again re-emerge in 1/A.
1894, MRAC, Spoorwegaalmoezeniers, HP.1982.6.121.

explicit 'héraut de la politique africaine du palais.'[50] With its glorifying description of the new hospital in 1904, the periodical – be it consciously or not – failed to acknowledge the harsh healthcare conditions that had tarnished the colonial capital's image for almost twenty years. Before the construction of Boma's new model complex, an older hospital offered healthcare to Africans in the capital, but as a colonial doctor later testified, it was little more than an 'assemblage de masures qui n'avaient d'hôpital que le nom.' Its 'désordre lamentable' offered 'un milieu de prédilection pour les mouches et les moustiques qui abondaient à Boma.'[51]

The deplorable conditions of Boma's hospital infrastructure were far from exceptional at the time. Most hospitals in the colony – especially those for Africans – did not comply at all to the most basic standards of contemporary Western hospital planning practices.[52] According to the testimonies of Dr.

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50. As Henry (2008, p. 11) has shown, the King had directly co-funded the magazine in the early years – although both he and the journal officially denied this. In 1890, Albert Thys, who was involved in a feud with Leopold over his colonial economic policymaking, took over the journal. Nonetheless the periodical kept on openly supporting the King and remained explicitly pro-colonial. On *Le Mouvement Géographique*, see also: Brugaillière (1993); Nicolaï (1993).

51. Meyers (1943, pp. 27-28). See also Côme (2005); Dubois and Duren (1947, p. 5).

52. Similarly, as Lyons (1985, 1992) has shown, politics of quarantining were especially harsh and inhumane, with lazarettos functioning much like detention camps or prisons.

Meyers, a local physician, the hospital of Léopoldville was also little more than a scattered collection of 'simples hangars,' consisting of a 'pharmacie en pisé' and 'deux locaux en torchis et paille,' where 'les malades gisaient sur le sol nu.'[53]

The propagandistic portrayal of the architecture Boma's *Hôpital des Noirs* not only glossed over the poor state of the capital's former healthcare infrastructure, it also largely exaggerated the new hospital's actual splendor. While colonial propaganda boasted that the medical complex had been planned according to the latest sanitary principles, in reality, its architecture failed to meet many of the hospital planning guidelines circulating in the *métropole* at the time. Already two years after the *Commission d'Enquête* had praised the complex, the head of the hospital feared the poor state of the buildings would actually start to harm the international reputation of the Congo Free State. In his annual report, he wrote that 'puisque Boma est une ville de passage,' he received 'beaucoup des visiteurs à l'hôpital des noirs,' who would often notice the hospital's several building flaws. He explicitly elaborates on the hospital's toilets, which were anything but sanitary. This was due to the poor execution of the hospital, as 'les tuyaux distributeurs ne sont pas encore places,' and due to this lack of running water, the personnel faced 'grandes difficultés pour tenir les cabinets en état de propreté.'[54] Apart from the toilets, there were also other flaws apparent in the hospital's architectural execution. The rooms or pavilions destined to isolate patients with contagious diseases weren't properly separated from the rest of the hospital, there was no proper laundry room, the operating room had no lighting, the floor of the pavilions wasn't 'dallé,' and neither was the internal courtyard 'macadamisé' – despite the piece in *Le Mouvement Géographique* had claimed it to be.

Yet these minor architectural shortcomings were likely not the main reason that must have made the visiting physicians question the legitimacy of Boma's 'institution-modèle.' With its use of ceramic tiling, typical tilt-and-turn windows, identically oriented pavilions, and the familiar interior arrangement of beds within the wards, the hospital must have appeared rather modern to the untrained eye – which also included the three members of the *Commission d'Enquête*, who were all jurists. The same can be said of contemporary photographs of the complex, which had been, in all likeliness, taken for propagandistic purposes. While at first glance these are reminiscent of familiar images of neatly orchestrated hospital wards – a widespread trope in contemporary photography of "modern" pavilion typology hospitals – the devil is in the detail. The amount of patients, the space in between beds, the height of the ward, and technicalities such as leaky roofing, mold or the

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53. Vellut (1992, pp. 68-69). As Dr. Meyers argued in his later published testimony, telling entitled *Le Prix d'un Empire*, this wasn't at all the fault of the observing physician, but pointed instead to the regime, thus contradicting the general propagandistic claims of philanthropy in contemporary colonial propaganda. As he said, there were only faibles ressources […] consacrées aux œuvres humanitaires,' and 'les subsides et les crédits officiels avaient d'autres destinées et la philanthropie ignorait le chemin du Congo.' Meyers (1943, pp. 27-28).
54. AA/H 842, Rapport du docteur Cammermeyer sur le fonctionnement de l'hôpital des noirs de Boma, annexed to letter from Vice-Gouverneur Général Fuchs to Ministre des Colonies, 22 January 1910.

Image 3 . Misleading parallels of a familiar trope in hospital photography

These perpendicular perspectives of hospital wards, with two neat rows of patient beds and medical staff in between had already become a trope in photography of pavilion typology hospitals at the time. Evoking this trope, the image above of Boma's hospital may have confirmed its status as an 'institution modèle' to the lay audience such (propagandistic) photography was often aimed at. Yet with leaky roofing, absent suspended ceilings, and lack of space, it nevertheless displays some important differences to its metropolitan contemporary counterpart - a ward in the Brugmann hospital of 1923 (as explained in 2/A, the Brugmann hospital still adhered to hospital guidelines from 1898, which were also the metropolitan reference for Boma's *Hôpital des Noirs*).

Above: *ca.* 1910, MRAC, Zusters Franciscanessen, AP.0.2.4084.
Below: Allegaert et al. (2004, p. 117).

absence of a suspended ceiling and rounded corners, in fact reveal vital differences between Boma's and Belgium's hospital infrastructure that the predominantly lay audience of these propagandistic photographs likely would have overlooked. Yet many of the visitors the head of the hospital received were 'médecins allemands, anglais, portugais,' who probably did notice how the hospital design completely failed to meet the spatial standards of the time.[55] Contemporary Western hospital planning guidelines minutely stipulated the minimum cubic and square meters per person per ward and the necessary height, width and in-between distance for pavilions. Although exact numbers varied, the Belgian official benchmark was 'un minimum de 40 mètres cubes d'air,' and 9 m² per patient, with a recommended minimum height of 4,5 m for the pavilion's ceiling. Spaces in between the beds should 1,3 meter, with a general maximum of twenty patients per ward. Moreover, the guidelines suggested that the terrain had to be well-ventilated, preferably by its relatively high altitude, and 'naturellement sec ou parfaitement asséché par un drainage.'[56]

Closely situated to water, and with 30 patients in the main pavilion, offering a mere 4,5 m², and 24 m³ per patient, Boma's hospital was at odds with almost all of these spatial guidelines, and clearly failed as an architectural 'machine à guérir.' This of course had racial origins. Although the Congolese tropics were feared for its 'forces imminentes de l'atmosphère du climat africain mortel,' its 'influences morbides' were thought to mainly cause harm to the European population.[57] As a result, ventilation was only considered vital for Western patients. This was not only the case for Boma's hospital, but also in other medical infrastructure in the colony. For instance, when the new Belgian government planned a new lazaretto for sleeping sickness in Léopoldville, they intended the complex to function as a 'lazaret-modèle' that was to 'répondr[e] aux conditions hygièniques au point cubage d'air.' While the preliminary design was criticized because of its 'cubage inférieur à 20 mètres cubes pour chaque malade,' it was also thought that 'Il ne faut pas exagérer le cubage, les nègres souffrant vite du froid.'[58] Clearly, racialized prejudice intersected with pseudo-scientific generalizations on climate, tropical medicine and hospital planning, and were mobilized by colonial policymakers to justify disparate spatial norms for the European and African population.

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55. AA/H 838, Letter from *Médecin Directeur* Dr. Zerbini to *Gouverneur Général*, 4 June 1906. Yet also Belgian citizens criticized the hospital. Among these was Emile Vandervelde, a leading figure of the Belgian socialist movement and early critic of the King's colonial endeavours. He lamented the faltering hospital infrastructure and the absence of a functioning public healthcare system in the Congo Free State, describing how 'les hôpitaux pour noirs sont, à quelques exceptions près, défectueux et insuffisants' and how 'l'hôpital de l'état' in Boma was 'une baraque en bois' in a 'état de délabrement que je n'hésite pas à qualifier de scandaleux.' This was, of course, an exaggeration, as the hospital was clearly a stone construction, suggesting that Vandervelde – consciously or not – was likely commenting Boma's first hospital for Africans.

56. Ministère de l'Intérieur (1884, pp. 676-677).

57. A topic more extensively discussed in 1/M. See *L'Ambulance anversoise de la Croix Rouge Congolaise* 1892, p. 12).

58. This lazaretto was founded by the Queen, and would be become known as *Fleur de la Reine*. AA/H 4390, *Note pour le Monsieur Directeur Général, Ministre des Colonies Jules Renkin*, 29 November 1912.

Image 4 . Courtyard of Boma's *Hôpital des Noirs.*

Next to the unpaved courtyard this photograph reveals, it also shows the presence of what were likely family members visiting patients. This suggests that perhaps the hospital management already relied on African kin for some everyday tasks such as cooking for patients, foreshadowing practices of 'hybrid governance' that will be discussed in more detail in 2/S.
ca. 1905, MRAC, Muller, AP.0.0.431-1.

By 1908, when the Belgian administration took over the Congo Free State and also inherited its limited healthcare infrastructure, the state of Boma's *Hôpital des Noirs* had become even more challenging. The roofing of many of the pavilions leaked, the courtyard remained unpaved, and there were still no pipes for running water. With an increasing amount of patients arriving to the already under-dimensioned complex, the staff faced a heavy task keeping the hospital clean. By the mid-1910s, the *Médecin en Chef* started filing complaints to the district commissioner and the hospital staff about 'l'état impropre des cours de l'hôpital des noirs.'[59] The commissioner replied, insisting that he had already told the Governor General that 'le seul moyen d'avoir des cours dont la propreté serait facile à entretenir c'est de les paver.'[60] However, when the local Public Works Department started elaborating the technical plans, it became clear that the elevated plateau of the courtyard could only be paved efficiently if the side walls of the hospital complex were reinforced to buttress the additional weight. Because of the unexpectedly high and violent rainfalls in Boma's tropical climate, however, the water had eroded much of the supporting soil, and the price of these reinforcements turned out disproportionately high.[61] These complications illustrate that even though

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59. AA/GG 16845, Letter from *Médecin en Chef* to *Commissaire de District*, 9 November 1916.
60. AA/GG 16845, Letter from *Commissaire de Distrit* to *Médecin en Chef*, 8 February 1917.
61. AA/GG 15833, Letter from *Commissaire de District* to *Gouverneur Général*, 15 July, 1916.

Image 5 . *Boma: Hôpital des noirs et lavadères*

Situated next to the often stagnant water of the Kalumu river, the choice of location of the hospital was already at odds with the latest insights of (tropical) medicine. That African patients (and perhaps visitors) were allowed to wash and clean in this water, which was likely a breeding ground of tsétsé flies, suggests practices of making do that prefigured the hybrid governance of the *Hôpital des Noirs de Léo-Est*, as described in 2/S.

1907, MRAC, E. Regel, AP.0.0.29052.
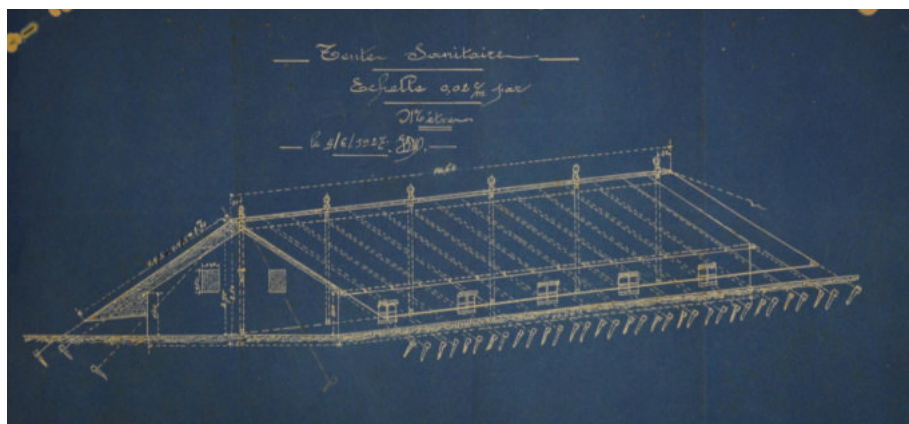
Image 6 . Isometric plan of a *Tente Sanitaire* used to combat overcrowding
AA/GG 16854.

Boma's hospital was based on architectural and technical principles minutely elaborated in the West, the direct 'export' or 'diffusion' of this building typology to Congo's tropical climate confronted colonial officials with the limits of what they had deemed universally perfected spatial models and construction techniques.[62] Building hospitals in the tropics, they learned the hard way, demanded new architectural solutions, and with the limited budget available to the colonial administration – especially during the war – these solutions were financially out of reach. As a result, the District Commissioner saw no other possibility than to instruct the doctors throw out garbage 'dans le bas-fond qui entoure l'hôpital de trois côtés,' quickly transforming the surroundings of this alleged model hospital into an unhygienic dumping ground littered with contagious medical waste.[63]

The hospital's location, too, was at odds with general insights of hospital planning and tropical hygiene. At the time of construction in 1904, policymakers were already well aware of the fact that stagnant water formed an ideal breeding ground for tsetse flies, which spread sleeping sickness. Nevertheless, the authorities had planned the complex next to the slow-flowing Kalumu river. To make matters worse, an undated colonial photograph suggests that African patients or visitors were allowed – or expected – to do their laundry and possibly even grow crops at the riverside, again revealing early, albeit perhaps coercive, forms of 'hybrid governance.' Even though the hospital's location was thus considered unsanitary, this had not only been ignored during the planning of this alleged 'institution modèle, but also ignored in the face of more practical everyday concerns of keeping the hospital running.

Officially, sleeping sickness patients were in fact not allowed in the hospital, yet had to be administered in the town's lazaretto. As the epidemic worsened throughout the 1900s, however, the sleeping sickness lazaretto became increasingly congested. While a second sleeping sickness lazaretto was being planned next to the hospital, its doors would only open in 1914. As a result, the hospital also had to shelter trypanosomiasis patients and became even more and more overcrowded. As the *Médecin-Directeur* Dr. Cammermeyer wrote in his report of 1910, 'l'hôpital des noirs peut hospitaliser 150 noirs au maximum. La moyenne des malades en traitement varie de 200 à 220.'[64] This forced the management to improvise. To keep the hospital at least running, the *Médecin-Directeur* decided to disregard basic guidelines of sanitation and control, placing a 'bon nombre de malades à deux dans un seul lit,' even though he admitted this was in fact 'inadmissible

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62. For a more thorough discussion of such 'export' or 'diffusion,' see 2/A.

63. AA/GG 16845, Letter from *Commissaire de Distri* to *Médecin en Chef*, 8 February 1917. To make matters worse, the original design of the hospital did not include an *incinérateur*, despite the fact that contemporary hospital planning practices stressed the importance of this facility. As a result, the medical waste may have not even been burnt.

64. AA/H 843, *Rapport sur les différents traitements employés à l'hôpital des noirs pendant le premier Semestre 1910*, by Dr. Cammermeyer, 30 September 1910.

dans un hôpital.'[65] Despite the fact that the the sleeping sickness lazaretto had already been realized, the overcrowding only became worse in the 1920s, and the management saw no other option than to resort to makeshift measures, installing improvised 'tentes sanitaires' that flew in the face of the hospital's image of an 'institution modèle.'

In both photographs and colonial periodicals, Boma's *Hôpital des Noirs* had been mediatized as a 'dignified part' of the state that symbolized the alleged medical philanthropy of King Leopold's regime. Through various archival fragments that shed light on the everyday reality of the hospital, however, I've highlighted in this chapter how this 'politics of visibility' was in fact rather misleading. The propagandistic portrayal of the hospital as an 'institution modèle' was not only at odds with the way the hospital management was often forced to resort to improvised ways of making do in order to patch up problems in and outside the hospital, it also and especially clashed with the poor architectural execution of the complex. The hospital design essentially functioned as a form of window-dressing, destined to counter international critics and convince the Commission. Just as colonial photographs conveyed a misleading image of a model facility, the hospital's architecture seemed to have impressed the Commission's members. All three jurists, these were not experts of hospital planning, and likely failed to look passed the complex' glossy architecture and assess the degree to which the design, and the dimensions of the wards in particular, violated contemporary spatial standards of hospital design. In a time when ventilation was considered key to healthy hospitals and thus a matter of life or death, the hospital's design provides an important architectural confirmation of the way colonial policymakers racially stratified life in the colonies. Medical infrastructure was segregated, and whereas hospitals for Europeans adhered to and even surpassed contemporary spatial norms, hospitals for Africans did not. As race seemed to determine the right to be healed, and thus 'who may live and who must die,' Boma's *Hôpital des Noirs* served to silence foreign critique and conceal the Congo Free State's colonial healthcare regime of 'necropolitics,' rather than provide an architecture that actually cured and gave life.[66] And yet, even in a regime as coercive and extractive as that of the Congo Free State, the analysis below of the capital's medical infrastructure for Europeans, reveals that racial hierarchies in public healthcare were more complex than such conventional binary reading suggests.

65. Ibid.
66. Mbembe (2003, p. 11).

1/MEDIUM

Unexpected priorities in the 'White man's grave'

Throughout the various missions Stanley undertook along the banks of the Congo river, he witnessed almost ten per cent of his European crew lose their lives to tropical diseases. The Welsh journalist admitted that he himself had also 'suffered during my long African experience over 120 fevers,' which he nevertheless survived.[67] During the pioneering explorations in the African hinterland at the time, these mortality rates were rule rather than exception, and the continent became widely described and feared in the West as a 'White man's grave.'[68] While European powers had charted the western coasts of Africa already three centuries before, setting up trading posts and harbors for the trafficking of slaves across the Atlantic, the continent's inland had remained a blind spot on the maps of the Western world until the mid-19th century. In his seminal work *The Tools of Empire*, Daniel Headrick has argued that 'it was disease that kept Europeans out of the interior of Africa,' and that European powers were only able to colonize the continent when medical knowledge allowed it.[69]

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67. Burke (1992, p. 91); Stanley (1886, p. 287).

68. According to Headrick (1981, p. 60), travelling through the Congo basin was considered an especially risky operation for Europeans: already 'in 1816-17, Captain James Tuckey led an exploring party up the Congo River, in which 19 out of 54 Europeans perished.' According to Vellut (1992, p. 64), the 'mortalité affrayante' was still high by the end of the 19th century: between 1879 and 1884, around one tenth of Europeans in Congo died of disease. See also Burke (1992, p. 91).

69. Headrick (1981, p. 59).

The fears for the 'White man's grave' were certainly well-founded: mortality rates were undeniably terrifying and tropical medicine did effectively play an important role in opening up the continent to Western imperialism. Nevertheless, the colonial discourse that perpetuated the idea of the 'White man's grave' in the second half of the 19th century also served the political objectives of Western powers. At the time, both popular media and scientific literature spread the view of the tropics as a 'torrid zone,' an environment dangerous and detrimental to 'the physical and mental well-being of Europeans.'[70] According to contemporary medical science, disease was directly linked to climate. The hot and humid tropics were thought to produce the most pestilential miasma, which affected white dwellers more severely than the accustomed 'native' peoples.[71] Even if this was the genuine scientific conviction at the time, this belief nevertheless furthered a colonial agenda. It not only helped to rebrand early colonial explorers as heroes risking their lives in disease-ridden Africa to chart unknown territories, it also conveniently implied a hierarchic division of labor. Europeans, allegedly suffering heavily from the burdensome tropical climate, were compelled to take up the physically lighter tasks of managing and controlling an African workforce that was assumed to better withstand and even thrive under the tropical sun.[72]

Seemingly paradoxical, such pathological rendering of the tropics often went hand in hand with romanticizing, sometimes even escapist fantasies and the mirage of the tropics as a rich El Dorado. Portrayals of 'exotic and paradisiacal landscape[s]' and of fertile and pristine nature confirmed European perceptions of the tropics as the 'Edenic other.'[73] Still, however, 'lurking behind the affirmative characterization of the tropics as an earthly paradise was a recurring sense of repugnance and disdain.' Tropical nature was not only seen as fertile and exotic, it was also a primitive, hostile environment, that rendered its inhabitants 'lazy' and incapable of 'mental exertion.'[74] This simultaneous perception of the tropics as pathological and sublime shows that the term was just as much an objective classification of a certain geographical zone, as it was – and still is – an

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70. Chang (2016, p. 7). Regarding Congo, however, Belgian pro-colonial sources also argued that the pathological reputation of tropical Congo was exaggerated. In *Le Mouvement Géographique*, 1895, 6(6), p. 44, for instance, Dr. Dryepondt dismissed this perception as an anti-colonialist ploy: 'On a beaucoup parlé du climat de l'Afrique centrale, et les adversaires de l'annexion en ont usé, comme d'un épouvantail pour communiquer à la population belge une horreur profonde, une peur énorme de toute tentative de colonisation.'

71. See e.g. Curtin (1961, p. 104), who poignantly described how 'by the middle of the nineteenth century, the deadliness of the African climate to white men, while Africans were apparently healthy there, had been enshrined at the very heart of pseudo-scientific racism.'

72. There are countless examples of this reasoning. In 1895, Dr. Dryepondt for instance wrote that 'Le climat du Congo ne constitue pas un obstacle insurmontable à la colonisation de ce pays et que le blanc, en tant que directeur de travaux, en tant que chef d'exploitation, peut très bien y vivre à condition de se soumettre aux prescriptions de l'hygiène. *Le Congo Illustré*, 1895, 4(9), p. 67. Similar arguments reappeared throughout the colonial period. See e.g. Michiels and Laude (1938, p. 24), who stated that Belgians were compelled to install a form of colonialism focused on 'simple exploitation,' since the Congolese climate limited 'l'action du blanc à la direction de la main-d'œuvre indigene.

73. Chang (2016, p. 7).

74. Chang (2016, p. 7).

'imaginative construct' of a 'radical otherness to the temperate world,' providing a stark contrast with 'all that was civilized, modest, enlightened.'[75] This was also the case for colonial Congo, where disease played a central and recurring role in literature that underpinned Congo's image of an 'insoutenable étrangeté.'[76]

With the tropics feared as a 'White man's grave,' yet treasured for its natural riches, the many historians who have written on early colonial healthcare indicate that it functioned as a crucial tool that facilitated Europeans to acclimatize to, colonize and exploit tropical regions. As a result, most authors assume that healthcare infrastructure was specifically focused on combatting the daunting mortality rates that plagued the white population. Nevertheless, few have actually truly focused on hospital construction in this pioneering period, and the limited publications that did – even though often only superficially – suggest that, particularly in Congo, 'l'hôpital fait partie de toute une série d'instruments d'« environment control » facilitant l'acclimatation du blanc au climat tropical.'[77] Such description seems to naturally align with classic depictions of the Congo Free State as the most violent example of a colonial exploitation economy, where the sole and harsh focus on resource extraction resulted in extremely coercive forms of racial segregation and inequality. According to this conventional narrative, public healthcare in such an extractive 'Etat-commerçant' was exclusively aimed at the protection of the European colonizer from tropical diseases in the 'White man's grave,' while the Congolese population was left to its fate.[78] This conventional narrative is certainly not all wrong. Medical care in early, colonial Congo was undeniably skewed towards the health of the white population. As the previous chapter already illustrated, well-equipped hospitals for Africans were few and far between, and even where so-called 'institutions modèles' had been built, these functioned rather as a tool for colonial propaganda and international legitimization, than as a genuine 'machine à guérir.'

Nevertheless, this *medium* scale nuances this historiographical assumption regarding healthcare infrastructure for Europeans in the 'White man's grave,' by tracing the financial and spatial planning, and the lived realities of Boma's hospital for Europeans. I zoom on two main narratives of this hospital – which

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75. Stepan (2001, pp. 11, 17); Driver and Yeoh (2000, p. 1). This 'imaginative geography' has been most famously described as 'tropicality' by Arnold (1996, p. 143).

76. See the extensive discussion concerning this obsession in Belgian colonial literature from Pierre Halen (1993, pp. 190, 187-245).

77. Lagae et al. (2013, p. 248). Similarly, Vellut (1992, p. 69) notes how 'il s'agissait de protéger la santé d'immigrants européens en Afrique et d'identifier les conditions nécessaires à l'établissement de «villes et villages européens ».' Of course, it is important to note that both publications have sought to question the classic colonial binary in other aspects. These views are also spread through other popular media such as historical websites on the urban development of Kinshasa. See e.g. http://kosubaawate.blogspot.com/2012/11/leopoldville-1902-first-hospital-for_26.html, [accessed: October 30, 2019.]. For such views outside of Belgian Congo, see Peter Scriver (1994, p. 316); Curtin (1989); Mertens (2009, pp. 80-81); Persyn and Ladrière (2004, p. 67); Zumthurm (2020, p. 11).

78. Vellut (1992, p. 69).

was also called the *Hôpital de la Croix Rouge*. First, I focus on how the hospital's design and construction was organized and financed, and especially by whom. Despite the widespread contemporary discourse depicting (central) Africa as a deadly 'White man's grave,' the colonial state showed little urgency in funding or constructing proper healthcare infrastructure for Europeans in its capital and main urban center. Instead, it was eventually the *Association congolaise et africaine de la Croix-Rouge*, a parastatal organization, that erected the hospital.[79] Even though the state offered little financial support for the hospital construction and equipment, it nevertheless widely depicted the complex in state propaganda that mobilized healthcare to legitimize colonial rule. The second section zooms out more explicitly to the ***medium*** scale, by charting the hospital within its broader urban context. Although the heydays of the interbellum's 'sanitation syndrome' were still far off – during which medical arguments would be extensively used to racially segregate the city – the head of the hospital already argued that the presence of Africans posed medical dangers to European patients, and that the city had to be strictly segregated.[80] While Boma's administration did aim to create a separate neighborhood for 'gens de couleur,' this was driven by concerns for the colony's (international) reputation, rather than by medical fears of contamination. European healthcare was simply not a priority of colonial policymakers during Congo's early colonial period, and anxieties of the 'White man's grave' may not have had as much of a gripping impact on colonial policies as historians have long assumed.

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79. Parallels should be noted between parastatal hospital construction and other domains such as education, in which the state relied on missionary workers and the Church, and had made explicit accords with the Vatican. See e.g. Depaepe (2014); Weisbord (2003).

80. Swanson (1977, p. 387).

Parastatal public healthcare for Europeans

In 1882, shortly after Stanley had completed his mission for the *Association Internationale Africaine* and set up outposts along the Congo river, Dr. Jean-Baptiste Allart was sent out to construct and run the first ever hospital for Europeans of the future Congo Free State. Realized on a hilltop overlooking Boma's still small harbor, the modest building opened its doors two years later and became known as the 'sanitarium.' Despite the praise the building widely received, including from Stanley himself, it offered room to only eight patients, and conditions were anything but hygienic.[81] As Jean-Luc Vellut already vividly described, 'le légendaire Dr. Allart […] opère le torse nu, ceint d'un tablier de caoutchouc, s'efforçant surtout de maintenir ses malades européens en vie jusqu'au moment de les embarquer vers l'Europe.'[82] The 'sanitarium' was exemplary of the 'conditions improvisées qui ont prévalu dans les premières années,' and even though colonial discourse devoted major attention to the climatic challenges and the tropical diseases that European agents awaited, a surprisingly limited portion of the colonial budget was attributed to hospital infrastructure for whites, resulting in the 'caractère limité de la couverture médicale' during this early period.[83]

While 'ce désintérêt apparent pour les questions de santé ne doit pas nous surprendre de la part d'un Etat qui fonctionnait avant tout comme une entreprise financière,' Jean-Luc Vellut already warned to be wary of 'anachronismes.'[84] Public expenditure on healthcare in Belgium, was, just like in many other European nations, very limited at the time, and medical services were much more a matter of charitable – often catholic – institutions, a model that was still rooted in late-medieval healthcare systems.[85] Still, contrasts between the King's 'prétentions philantropiques,' his limited healthcare efforts, and his ample investments in urban prestige projects in the Belgian *métropole* were flagrant, even for that time. As a matter of fact, these policy priorities already frustrated local *colons*, as Jean Stengers poignantly described:

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81. Lagae et al. (2005). Similarly, Burke (1992, pp. 88-89) notes that 'Les premiers établissements ont été construits en matériaux locaux et en tôles. Les détritus n'étant pas collectés ni incinérés, les rats pullulaient partout, et la seule protection contre les moustiques restait la moustiquaire.

82. Vellut (1992, p. 64).

83. Again, this budget was of course still considerably larger than that attributed to hospitals for Congolese. It should also be noted that both in Europe and in the colonies, not all medical care was carried out in hospitals at time. In Belgium, the richer class could would often be nursed at home by itinerant doctors, and to a lesser extent, this was also the case in Congo Free State and (early) Belgian Congo. However, with only 30 doctors for a territory as large as Western Europe in 1908, homecare of course wasn't always an option. Dubois and Duren (1947, p. 3).

84. Vellut (1992, pp. 67-68).

85. Allegaert et al. (2004). Wealthy philanthropists such as George Brugmann also played an important role in funding hospital construction in Belgium, see Dickstein-Bernard, Lelarge, Guilardian, and le Maire (2005, pp. 29-30).

Image 7 . *Boma, Sanitarium*

Although the first hospital for Europeans in Congo widely received praise, the conditions of its healthcare services were often unsanitary and precarious. After the *Hôpital de la Croix Rouge* opened its doors, the building lost its function of a hospital and served successively as lodging for high-ranking officials, a temporary residence for visitors, and as a courthouse.

1886, MRAC, A. de Macar, AP.0.0.16804.

Les coloniaux s'irritaient de sa politique. Alors que le Congo, ils le voyaient de leurs propres yeux, manquait encore de tant de choses, ils éprouvaient une sourde colère, et parfois même une colère violente, à constater que l'on dépensait des fonds congolais, en Belgique, pour des travaux somptuaires. Le Congo n'avait pas de routes, il n'avait presque pas de médecins ni d'hôpitaux, il manquait de moyens de transport, ses bâtiments administratifs étaient souvent minables, et l'on utilisait l'argent congolais, par brassées de dizaines de millions, pour construire l'Arcade du Cinquantenaire, la Tour japonaise ou le golf de Cleemskerke!

Private companies, religious congregations and philanthropic organizations partly compensated the colonial state's relative indifference to building healthcare infrastructure. The large private enterprise of the *Compagnie du Chemin de Fer du Congo*, for instance, not only erected a hospital for Europeans close to the port city of Matadi, but also deployed a transportable hospital during the construction of the railway between Matadi and Léopoldville.[86] The hospital consisted of a 'maison danoise pour le médecin, une cabane servant de pharmacie et deux tentes d'hospitalisation' with a 'certain nombre de cadres en bois grossier servant de couchettes pour une quarantaine de malades,' again illustrating the haphazard character of European healthcare at the time.[87]

Yet by far the most important non-public organization for hospital infrastructure of the Congo Free State was the *Association congolaise et africaine de la Croix-Rouge*. From 1888 until 1908, the year *Association* was dissolved and annexed by the new Belgian colonial administration due to structural budgetary deficits, it erected three hospitals and had funded several healthcare campaigns across the Congolese territory. In 1888, King Leopold himself founded this Congolese branch of the Red Cross, of which the *Comité Directeur* consisted of several members of the Belgian *beau monde*.[88] During his inauguration speech, he stressed the crucial role the *Association* would fulfil in the 'ouverture de l'Afrique à la civilization.'[89] Rather than providing healthcare to the millions of Congolese, King Leopold underlined that its main goal had to be the provision of medical support to those Europeans who risked their lives in bringing civilization to Africa:[90]

Cette grande cause de l'émancipation africaine, vous le savez, Messieurs, elle a déjà eu ses martyrs. Plus d'un de nos compatriotes figures sur le tableau d'honneur. Il est temps de penser aux blessés de la civilisation et d'étendre à ceux qui se dévouent en Afrique, les bienfaits de la Croix Rouge.

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86. *Le Mouvement Géographique,* lauded the building as 'un hôpital assez spacieux, établi d'après les théories nouvelles de la science sanitaire' and which 'rend les plus grands services et les soins qu'on y reçoit méritent la plus vive gratitude.' See *Le Mouvement Géographique,* 1894.

87. Dubois (1944, p. 356); (*Biographie belge d'outre-mer*, 1977, p. 383).

88. See the several *Bulletins de l'Association congolaise et africaine de la croix-rouge*. The *Comité Directeur* included Albert Thys, Count De Mérode, Ernest Solvay and even Georges Brugmann – who would later fund the Brugmann hospital designed by Victor Horta in Laeken.

89. *Ambulance Anversoise de la Croix Rouge Congolaise,* 1892, p. 4.

90. Ibid., p. 4.

Similar to the raison d'être of the International Red Cross – offering healthcare to war victims – the discourse underpinning the foundation of the *Association* explicitly drew on a rhetoric of war. The enemy, however, was not a rivalling state, but barbarism itself, seemingly making the victims on the battlefield all the more heroic. As the secretary general noted:[91]

> *L'heure est venue d'étendre aux explorateurs, aux missionnaires, aux fonctionnaires et agents, à tous les soldats de la cause africaine les bienfaits que prodigue la Croix Rouge aux blessés du champ de bataille. Oui, sur ce champ de bataille où la civilisation lutte sans cesse contre la barbarie, il faut une Croix Rouge pour soutenir et panser les blessés de ce combat héroïque.*

In contrast to other national committees of the International Red Cross, which deployed temporary hospital structures and tents to provide care to victims of both sides, the Congolese Red Cross would support this alleged battle against barbarism through the construction of durable hospital infrastructure for Europeans. Its initial objective was to erect several 'stations des secours médicaux' at strategic colonial outposts across the Congolese territory. Colonial doctors, who, 'dans les pays sauvages particulièrement,' constituted 'un puissant agent de civilisation,' would use these medical stations as their base of operations for sanitary missions.[92]

If the rhetorical undertone of the *Association*'s founding confirms the classic narrative of the 'Etat commerçant,' where public healthcare was primarily focused European healthcare within a hostile, uncivilized environment, the fact that a parastatal organization would take care of hospital construction already suggests how the state in fact was little concerned about the 'White man's grave.' Inspecting the annual income sheets of the *Association*, further confirms this. Although the state doctors operational in the *Hôpital de la Croix Rouge* were of course paid by the government, the *Association* did fund the construction and medical equipment of its hospital infrastructure, without direct financial support from the King or the Congo Free State.[93] To do so, it relied on public fundraisers, organized by its various *sous-commités provinciaux* that emerged across Belgium. Ranging from equestrian spectacles to exhibitions of the hospital infrastructure that would later be shipped off to Congo, these fundraisers aimed to convince the attending audience not only of the *Association*'s noble *mission civilatrice*, but also of the feasibility of the project, all in order to collect as many donations as possible (Image 8).[94]

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91. Ibid., p. 6-7.

92. Ibid., p. 5.

93. See the several *Bulletins de l'Association congolaise et africaine de la croix-rouge.* The limited hospital fees for state agent were also likely paid by the state, although I have not found any clear confirmation of this in the archives.

94. Perhaps as a result of the networks of some of the well-connected members of the *Association*, the exposition also received wider attention from contemporary media. *Le Mouvement Géographique*, for instance, depicted the pavilion on display as publicity for the contractor who had realized the building.
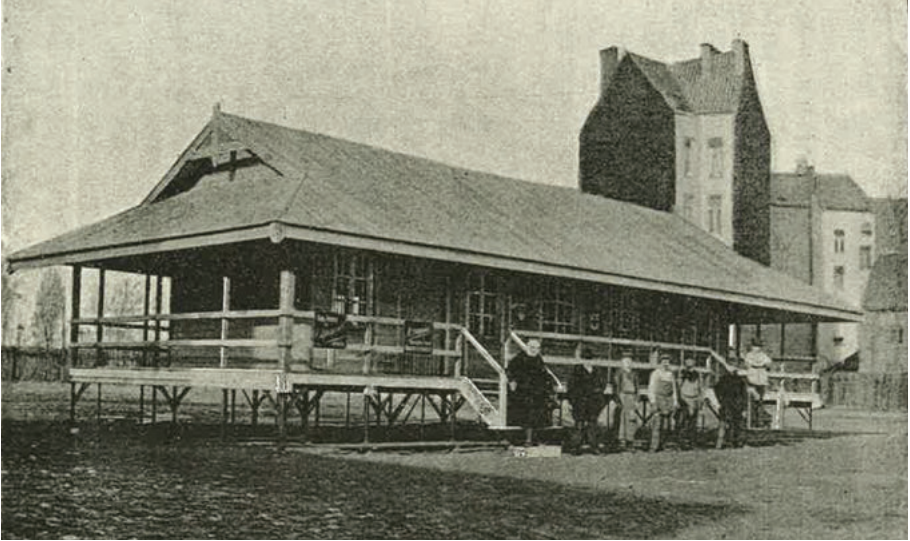
Image 8 . Exhibition of first pavilion of the *Hôpital de la Croix Rouge.*

Temporarily erected at the Antwerp Palace of Industries, the first pavilion of the hospital
was exhibited as a way to raise additional funding for the *Association.*
Ambulance Anversoise de la Croix Rouge Congolaise, 1892, p. 11.
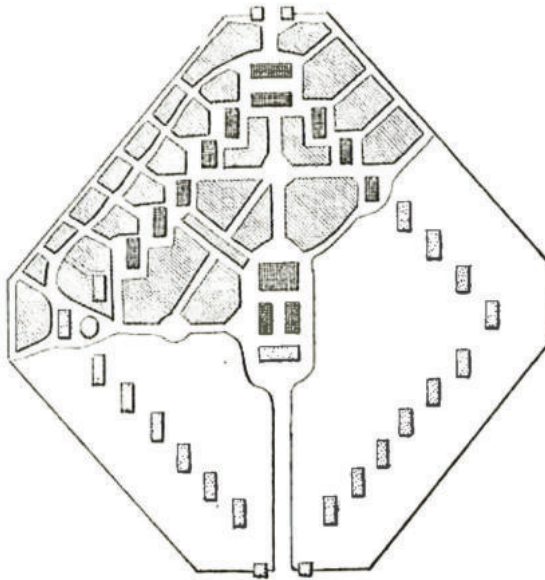
Image 9 . Initial plans for the *Hôpital de la Croix Rouge*

Based on American plans for temporary military hospitals, the amount of pavilions initially
planned for the hospital proved too ambitious and was never realized.
Ambulance Anversoise de la Croix Rouge Congolaise, 1892, p. 12.

As the organization's expanded its network of hospital infrastructure and medical services, however, it increasingly struggled to gather enough contributions to cover its costs. Boma's *Hôpital de la Croix Rouge*, the organization's first medical station, is a case in point. Whereas the initial plans reveal the steep ambitions cherished by the Congolese Red Cross to combat European mortality rates in the capital, the organization failed to see its plans through without the financial support of the state. The original *plan d'ensemble* was based on 'l'idée d'un campement sanitaire composé de petits pavillons isolés, établis suivant le dispositif dit embriqué [imbriqué], employé avec succès dans l'hôpital de Lincoln à Washington.'[95] In these temporary military hospitals in the USA, identically oriented pavilions were organized in a v-shaped formation, allowing the air to easily circulate in between the separate hospital buildings.

Between 1894 and 1899, the *Association* was able to fund and construct four pavilions at the hospital site, but also faced increasing financial problems. Eventually, the initial – and perhaps overly ambitious – number of hospital wards was never realized, and the idea of a *campement sanitaire* was abandoned. Instead, the four buildings were organized in a more straightforward diamond pattern, surrounding a central courtyard. While the architecture of the wards remained simple, the hospital was nevertheless fairly luxurious and offered individual rooms, with a private bathroom and *barza* - a luxury few Belgian hospitals offered to their patients at the time. These elevated standards were not only motivated by the fact that the complex was just as much a medical center as a refuge where (home)sick patients nervously waited to get on the boat back home, but also by the contemporary medical belief that the tropical climate was especially taxing on the European body, both mentally and physically.[96]

This belief also had its impact on the luxurious daily services offered in the hospital. A quick glance at the 'liste d'approvisionnements' of the hospital reveals quite an extensive inventory of luxury goods. Apart from meals with fresh meat prepared by the sisters of the religious order that operated at the hospital, the patients could choose from a wide variety of alcoholic beverages, ranging from beer to wine, port, cognac and even champagne. They could enjoy these while taking a relaxing 'bain à pieds,' and a 'machine à glace' made sure that their drinks were on the rocks, an apparent necessity in the hot and humid climate of the tropics.[97] The fact that these luxuries were categorized as 'médical-confort' again underpins

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95. Ibid., p. 20.

96. That homesickness was an explicit argument in isolating separate rooms, becomes clear when reading Dr. Dryepondt's article on *Le Service des Secours Médicaux:* 'Il faut donner à l'agent congolais un home […]. Il est indispensable qu'il s'y trouve chez lui, ce qui n'est possible qu'avec le système des pavillons isolé, car dans les grands caravansérails à plusieurs chambres, on sent trop qu'on « est en voyage », qu'on est « loin du pays ».' *Le Congo Illustré*, 1895, 4(11), pp. 82-83.

97. AA/H 4391, *Liste d'approvisionnements*, 6 July 1894. It was only in 1916 that the *Commissaire de District* of Boma proposed to compel patients to pay for 'eau minérale, vins et champagne' in order to 'supprimer les abus.' AA/GG 16845, Letter from *Commissaire de District* to *Gouverneur Général*, 13 March 1916.

Image 10 . View from the tramway at the hospital

Throughout various newsletters and bulletins, the *Association* kept its subscribers up-to-date about its latest realizations in the colony, again partly in order to collect additional contributions.

Annual bulletin *Association congolaise et africaine de la Croix-Rouge..*

how in the context of the tropics, where climatic conditions were considered a constant burden on the European body and mind, the dividing line between medical assistance and comfort was much thinner than in the *métropole*.[98]

This belief in 'médical-confort,' however, only increased the financial headaches of the *Association*. By the time the fourth pavilion, and a second, smaller hospital in Léopoldville were being constructed, the organization had clearly overinvested and was truly falling into dire straits.[99] Just after the construction of the Léopoldville hospital, for instance, the central committee in Brussels noted that:

> *Si la fondation d'un hôpital à Léopoldville a une portée considérable au point de vue humanitaire, nous devons ajouter que les dépenses de premier établissement absorberont la presque totalité de notre encaisse disponible. A moins de voir nos revenus annuels suivre une progression ascendante, nous nous trouverons, après quelques exercices, dans l'impossibilité d'assurer le fonctionnement de tous nos établissements.*

Already from 1897, the organization deployed its annual newsletter to attract additional donations from its subscribers, using easily detachable coupons, or inviting them to a myriad of additional fundraisers it desperately organized to raise money. These attempts eventually proved in vain, as its expenses only increased with now two costly hospitals for Europeans to manage. Eventually, the *Association* was dissolved in 1908, and the Belgian government not only inherited the administration of the Congo Free State, but also took over the medical infrastructure the Congolese Red Cross had realized over its twenty years of existence.

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98. That the tropics were also deemed psychologically damaging, is perhaps best captured by 'tropical neurasthenia,' a label used to describe nervousness and mental unease that was allegedly caused by the tropical sun or climatic conditions. The term was widely used in various colonial contexts, including Belgian Congo, and formed an inspiration to Nancy Hunt's latest book, *The Nervous State*. See also e.g. W. Anderson (2008, pp. 134-142); Kennedy (2016).

99. Realized in 1900, the *Hôpital de la Croix Rouge* in Léopoldville consisted of two separate buildings, entirely made up of metal parts which had all been produced in Belgium and shipped from Antwerp by boat. The last medical infrastructure the *Association* realized was a sanatorium in Banana, realized just after the Belgian annexation of Congo. The reference work of Burke (1992, p. 89), little critical and often even apologetic of the Belgian colonial regime and its colonial healthcare policies, seems to contain several inaccuracies concerning Congo's medical infrastructure. For instance, while it mentions that 'la Croix-Rouge construit un hôpital pour les Africains à Boma en 1904,' I've found no traces in the bulletins and reports of the Association that it would have (co-)funded or constructed the capital's *Hôpital des Noirs*.

Image 11 . Detachable coupons

In order to cover its increasing costs, the *Association* used an increasing variety of measures to attract donations, including these detachable coupons in their annual newsletter.

Annual bulletin *Association congolaise et africaine de la Croix-Rouge*, 1897, p. 28.

Image 12 . Plan of Boma

The *Avenue Royale* and the tramway connected Boma's two main centers: *Boma-Rive*, which included the harbor and the old trading post, and *Boma-Plateau*, the hilltop and the new administrative center of the capital. Situated in between the tramway and the continuation of the *Avenue Royale*, the *Hôpital de la Croix Rouge* held a prominent place within the capital's cityscape.

Own drawing based on *Ambulance Anversoise de la Croix Rouge Congolaise*, 1892, p. 29.

Urban plans and lived realities in the colonial capital

The urban development of Boma, and the role the hospital played within this history, perhaps even more clearly show how fears for European healthcare in the tropics were not high on the agenda of the colonial state. A mere two years after the 'sanitarium' of Dr. Allart opened its doors, the colonial administration designated Boma as its official capital – the presence of the first and only hospital infrastructure for Whites had in fact been an important underlying argument for this change.[100] Until then, Boma had been a small, yet economically important commercial outpost, which had already developed from the 17th century onwards. Accessible by boat from the Atlantic Ocean and connected to an existing network of African inland trading routes, Boma had grown into one of the major nodes in the regional slave trade network. It attracted a cosmopolitan crowd of British, Dutch, Portuguese and French merchants, slave traders, or missionaries, as well as Africans from diverse origins, ranging from British colonies such as Nigeria, to various places from the Congolese hinterland. Commerce dictated the pulse and development of the town: just as many other trading posts along Africa's Western coastline the *Bomatriciens* were doing intense business with, its 'lifecycle was completely dependent on economic conjunctures.'[101]

When the center became the official capital of the Congo Free State, this not only added to Boma's cosmopolitan character, as many Belgians now increasingly settled in town, but also led to a major building boom. At *Boma-Rive*, the original trading post, the harbor and economic activities extended with the construction of new warehouses and naval headquarters, a tax and post office, multiple boat workshops, and a police office, centered around the central *Place de la Marine*. Meanwhile, at *Boma-Plateau*, the hilltop that overlooked *Boma-Rive*, new residences for colonial officials, administrative buildings and important landmarks such as the Residence of the *Gouverneur-Général* were constructed. The *Avenue Royale* and the tramline which ran along this avenue, connected the *Place de la Marine* with *Boma-Plateau* and strung together most of Boma's major buildings, including the *Hôpital de la Croix Rouge*. At the same time, this thoroughfare was also dotted with small liquor stores and wooden barracks of various trading companies, which often belonged to Portuguese or Nigerian merchants and which attracted both European and African clientele. Even if the town had morphed from an 'an ad hoc ensemble of *factoreries* along the Congo River's edge into a small town' with 'well-maintained and aligned buildings and avenues,' it had retained its cosmopolitan cityscape dictated by economic pragmatism and international trade.[102]

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100. Until then, Vivi, a small trading post close to current-day Matadi, had served as the capital seat.

101. Lagae (Forthcoming, p. 4) develops further the argument already formulated by Alain Sinou (1993, p. 12). On cosmopolitan Boma, see also Côme (2005).

102. Lagae (Forthcoming, p. 5).

Within this small yet blossoming melting pot primarily focused on commerce, it seems both Boma's inhabitants and its municipal authorities could simply not afford to be too concerned with fears of the 'White man's grave.' This becomes clear when analyzing discussions concerning racial segregation policies and the allegedly unsanitary urban situation of the *Hôpital de la Croix Rouge*. Even though anxieties of contamination through proximity with Africans already circulated amongst the European population, these never truly dictated the policymaking or the daily life in Boma, despite repeated complaints from the hospital's *Médecin Directeur*. Dr. Zerbini, the Italian head of the hospital, filed several grievance letters to the municipal authorities about the questionable sanitary conditions and the unhealthy location of the medical complex. On the one hand, his complaints reveal how high-ranking medical officers such as Zerbini already pathologized Africans as the main carriers of tropical diseases, long before the 'sanitation syndrome' would truly spread across Belgian Congo. On the other, they also suggests that such pathologization was anything but rigid or final, that exceptions of healthcare were made that went against racial hierarchies embedded in colonial society, and that hospitals thus also formed liminal spaces of encounter between people of various social echelons or (racial) origins.

According to the head of the hospital, the 'école d'enfants, externat et internat, […] établie dans l'enceinte même de la Croix Rouge' was completely 'contrairement à l'hygiène et aux règles de prophylaxie,' as 'les enfants surtout sont cause de la propagation des maladies.'[103] Around the turn of the century, the belief that 'African children and not adults were the primary source of malarial infection' had become widespread amongst experts of tropical medicine.[104] The fact that the children stayed overnight, while scientists had noticed that the *Anopheles* 'did most of its biting and infecting at night,' and that the housing for the *Sœurs Franciscaines* constituted 'un vaste laboratoire de culture d'anophèles,' only made matters worse.[105] At the same time, Dr. Zerbini also himself contributed to what he categorized as unhygienic conditions. At several occasions, he received Africans within the quarters of the complex, using 'la salle d'opération et de visites de cet hôpital non seulement pour les blancs, mais en guise de dispensaire pour les noirs des deux sexes.' His personal stance regarding medical care for Africans was even more in contradiction with his earlier complaints regarding the presence of African children in the complex, as he stressed that he made 'aucune différence entre blancs et noirs, en tant que médecin.'[106]

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103. AA/H 4391, Letter from Dr. Zerbini to *Président de l'Association* [of the Red Cross], 20 January, 1908.

104. Njoh (2007, pp. 207-208).

105. Njoh (2007, pp. 207-208); AA/H 4391, Letter from Dr. Zerbini to *Président de l'Association* [of the Red Cross], 18 April, 1908.

106. AA/H 4391, Letter from Dr. Zerbini to *Président de l'Association* [of the Red Cross], 22 June, 1908.

Image 13 . View of *Avenue Royale* and one of the *factoreries* or workshops in the harbor.

The harbor and especially the *Avenue Royale* were dotted with wooden barracks and warehouses attracting a cosmpolitan crowd. These clashed with the representative function of Boma as colonial capital and were a thorn in the side of local officials.

Above: *Bifurcation Avenue Royale et Rue de la rivière Croco, ca.* 1910, MRAC, Pelet, AP.0.0.9626.
Below: *Atelier de la Marine à Boma, ca.* 1910, MRAC, H.A. Shanu, HP.1968.4.66.

If the classic binary framework of colonizer and colonized fails to account for encounters between Italian doctors and African patients within a Belgian hospital complex for Europeans, the occasional presence of European sleeping sickness patients in Boma's lazaretto was perhaps even more contradictory to the binary hierarchies of colonial urban society, or to the historiography of the 'White man's grave.' In the patient register of 1910 of the lazaretto – officially destined for Africans – the *Médecin-Directeur* always noted the origins of entering patients. Listed among the many African entries, a certain Mr. X with a 'belge' nationality immediately catches the eye.[107]

Unfortunately, the 1910 register is the only list of its kind I found in the archives, and together with the anonymity of this mysterious Belgian patient, this raises more questions than it answers. Sleeping sickness was not very prevalent amongst an urban European population – as also becomes clear from contemporary morbidity figures. Was it then perhaps common practice to send the few Europeans suffering from trypanosomiasis to the lazaretto? Or was the nameless or anonymous Mr. X part of the rising number of 'poor whites' that may have resided in the Boma's cosmopolitan merchant town, and for which the medical service might have installed differential policies of hospitalization?[108] Or was the reason for his anonymity the fact that he had been one of the several mulattoes in Belgian Congo, and for which claiming parenthood was, certainly in the early colonial period, still a major taboo. Common practice, 'poor white' or mulatto, the presence of this unknown Belgian figure within Boma's lazaretto still challenges our understanding of urban colonial society. It not only indicates that racial boundaries were much more blurred than all too simplistic binaries of colonizer and colonized, of European and African, or of White and Black can explain, it also nuances the history of the 'White man's grave.' If concerns for European mortality were even prominent at all, they were perhaps the exclusive right for those European citizens that fit in, and acted in line with the conventional codes of conduct and social 'habitus' implicit to European colonial society.[109]

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107. AA/H 843, *Copie textuelle de registre général du lazaret de Boma du 1er Janvier au 30 juin 1910,* Dr. Cammermeyer. It is unclear to what extent Dr. Zerbini was also directly involved in this matter. Although the *Biographie Coloniale* states that he 'prenait à Boma le 30 mars [1907] la direction de l'hôpital des Noirs pour la durée de son terme' until November 1910, his letters suggest he was only the head of the European hospital: 'Je sais qu'il existe un hôpital des noirs, mais cet hôpital est dirigé par un confrère.' AA/H 4391, Letter from Dr. Zerbini to *Président de l'Association* [of the Red Cross], 22 June, 1908.

108. The issue of 'poor whites' became truly urgent in Katanga and during the interbellum, when colonial authorities feared the presence of this class would unsettle colonial hierarchies. See Boonen and Lagae (2015a); Lauro and Piette (2009); Vanthemsche (1999); Lauro and Piette (2009).

109. I will return to the issue of 'social habitus' within the colonial administration in 3/S. See also Steinmetz (2008, pp. 591, 596).

Image 14 . Register of Boma's sleeping sickness lazaretto

On the third row from the bottom, a certain Mr. X with a Belgian nationality is registered. His presence reveals that although Boma's *lazaret* was officially destined for African patients, Europeans, or perhaps mulattoes, nevertheless stayed at the complex, unsettling classic binary understandings of colonial healthcare and society at large.

AA/H 843, *Copie textuelle de registre général du lazaret de Boma du 1er Janvier au 30 juin 1910,* Dr. Cammermeyer.

While the presence of Europeans in Boma's lazaretto may have been exceptional, African patients entering the *Hôpital de la Croix Rouge* certainly was not. And even if it had been the *Médecin-Directeur* who had accepted and examined these patients, he – as well as the Belgian nurses working at the hospital[110] – still considered their presence a medical risk for both the European patients and inhabitants residing outside the complex walls. Dr. Zerbini expressed his concerns to the urban committee, and advocated the relocation of the complex:[111]

> *L'hôpital tend à être enclavé dans l'agglomération de Boma. Il est un foyer d'infection, la chose est indiscutable. Le Congo étant à la veille d'être repris par la Belgique, il est probable que Boma comme capitale prendra de l'extension, deviendra une ville importante. Nous aurons alors, ceci sans commentaires un centre d'infection en pleine agglomération. Je tiens à prévenir le Comité en temps utile pour qu'il soit fait choix d'un nouvel emplacement.*

Next to this relocation, Dr. Zerbini also recommended to racially segregate Boma for reasons of public health, arguing that 'toute l'agglomération de noirs doit être évitée dans la ville' and 'une ville pour noirs doit être crée.'[112] This was not an entirely new urban planning proposal. While Boma had been redefined from a regular coastal outpost to the capital of the Congo Free State, it had still retained its character of a cosmopolitan trading post. This often clashed with the symbolic, representative function the new capital now had to fullfil. Especially the *Avenue Royale* and the tramway, the connections between *Boma-Rive* and *Boma-Plateau*, were an eyesore to local officials. The avenue formed the stage of military parades and displays of colonial power, passing alongside some of the town's most symbolic public buildings. These scenes of ceremony and pomp stood in stark contrast with the ramshackle appearance of some of the wooden barracks owned by 'colored' merchants on the avenue. The Governor General condemned this situation, deploring the 'mauvaise impression de l'aspect general de notre capital.'[113] and recommended to expropriate these 'gens de couleur' and relocate them to a separate neighborhood. This proposal, he argued, was not only in line with urban planning practices in many colonial towns across Africa, but also with building regulations decreed in 1898 to separate neighborhoods constructed of 'matériaux non-durables' from those realized in brick or metal, thus de facto dividing urban centers along racial lines.[114]

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110. AA/H 4391, Letter from Dr. Zerbini to *Président de l'Association* [of the Red Cross], 22 June, 1908.
111. AA/H 4391, Letter from Dr. Zerbini to *Président de l'Association* [of the Red Cross], 20 January, 1908.
112. AA/H 4391, Letter from Dr. Zerbini to *Président de l'Association* [of the Red Cross], 27 January, 1908.
113. Quoted in: Côme (2005, p. 279).
114. See also Côme (2005, pp. 209-246; 275).

Image 15 . Creation of a *quartier pour gens de couleur*

While the *Avenue Royale* was meant to become the capital's central artery that set the stage for official military parades and architectural displays of power, it was still characterized by wooden shacks and cosmopolitan crowds: the fact that African palavers took place at the avenue forms a case in point, and this African presence formed an eyesore to the municipal authorities. As a result, local policymakers proposed in 1903 to create a separate neighborhood for *gens de couleur*, where the various merchants from the avenue from Portuguese, Nigerian, or other descent would move to. Rather than fears of European healthcare - which would be the main reason behind racial segregation during the interbellum, and which one would expect would play a major role in this era of the 'White man's grave,' this project was mainly driven by concerns of international prestige and urban aesthetics.

Above: *Une palabre - Avenue Royale, ca.* 1900, MRAC, Pelet, AP.0.0.14412.
Middle: *ca.* 1910, MRAC, HP.2012.1.1.
Right: 1903, AA/RF 1438, *Note sur la création d'un quartier pour gens de couleur à Boma.*

Whereas Dr. Zerbini's motion to create a separate neighborhood for Africans had been informed by fears of contamination, these earlier proposals of racial segregation served a rather different agenda. By banning 'gens de couleur' from the streetscape of Boma's central avenue, colonial policymakers aimed to give the city the 'grandeur' befitting of a colonial capital, and considered 'this operation as much as a question of urban aesthetics as of racial segregation.'[115] With foreign critique on the red rubber atrocities on the rise, colonial policymakers were much more worried about urban prestige or the colony's international reputation, than about European healthcare in the 'White man's grave.'

The proposal, however, never left the drawing board – just as many other urban projects developed in Boma during the Congo Free State period[116] – precisely because of fears for the colony's reputation. Rober Casement, the British consul residing in Boma, had just published a devasting report on Congo's rubber trade, which would play a major role in the global campaign against the Belgian King's colonial reign. As many of the shop owners of the *Avenue Royale* originated from West African colonies under British rule and might have filed official complaints with the consul in case of forced expropriation, the Vice-Governor feared the project of racial segregation would only fan the flames of anti-Leopoldian critique. In the end 'more bad international press was the last thing the Congo Free State administration could afford.'[117] The project to divide Boma along racial lines was put on hold until as late as 1926, and the *Avenue Royale* remained a melting pot of public buildings and wooden barracks where Boma's small yet cosmopolitan crowd strolled around and co-shaped the town's cityscape.

The decisions from the local authorities regarding the *Hôpital de la Croix Rouge* followed a similar line of reasoning. Positioned in between the tramway and the continuation of the *Avenue Royale*, it occupied a prominent place in the capital's cityscape, and policymakers were more concerned about the effects the hospital had on the reputation and prestige of the capital, than about the actual well-being of the European patients. The complaints Dr. Zerbini had written to local policymakers all fell on deaf ears. It was only when the doctor urged the Brussels-based Presisdent of the *Association* to 'use de son influence pour s'opposer à l'abus,' that the Vice-Governor General grudgingly acknowledged the problem.[118] Nevertheless, while he admitted that the presence of Africans went against the basic principles of tropical medicine, the Vice-Governor was mainly

115. Lagae (Forthcoming, p. 10). Côme (2005, pp. 286-290), however, also indicates ethnical tensions between local and immigrant groups of Africans in Boma.

116. As was for instance the case with the plan to build a monumental neo-Roman church. Other projects were ridiculed: nicknamed 'la boite aux sardines,' the residence of the *Gouverneur-Général* forms a case in point. See Lagae (2002, p. 125).

117. Lagae (Forthcoming, p. 10).

118. AA/H 4391, Letter from Dr. Zerbini to *Président de l'Association* [of the Red Cross], 18 April, 1908. Zerbini's complaints were also published and thus publicly accessible in the *Association*'s yearly *Bulletin* of 1908, putting additional pressure on the colonial Ministry.

Image 16 . *La Croix Rouge*

Located next to the tramway, the *Hôpital de la Croix Rouge* was a prominent public building in Boma's cityscape. Concerned about urban aesthetics rather than the well-being of the hospital's European patients, local policymakers feared complaints of residents more than the risks of contamination.
ca. 1910, MRAC, Pelet, AP.0.0.8437.

concerned with the problems this implied on an urban scale. The number of colonial administrators and European inhabitants residing around the hospital was rapidly increasing, and he feared the rising amount of 'plaintes réitérés de la part des occupants des habitations voisines.'[119] Still, facing budgetary shortages, and with the administrative problems the transfer of the Congo Free State to the Belgian state engendered, neither the hospital nor the school for African children were relocated.

Despite what implicit assumptions within the historiography on the 'White man's grave' suggest, fears of tropical disease and contamination were not a major priority of policymakers in the Congo Free State, who scoffed the construction of European hospital infrastructure aside as 'investissements non rentables.'[120]

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119. AA/H 4391, Letter from *Vice-Gouverneur Général* Fuchs to *Secrétaire d'Etat* of the Ministry in Brussels, 28 July, 1908.
120. Vellut (1992, p. 69).

Rather than healthcare and mortality figures, the authorities worried about the international reputation of the colony, which was increasingly under fire from the turn of the century onwards. While Boma's hospital for Africans was directly deployed in the countercampaign launched by King Leopold to exonerate his regime, the state was not directly involved in the construction and equipment of the European *Hôpital de la Croix Rouge*. Instead, it was the parastatal *Association congolaise et africaine de la Croix-Rouge* that organized this, but without public funding, the *Association* faced continuous financial struggles to equip and maintain the hospital infrastructure. Moreover, while the *Médecin-Directeur* complained multiple times about the unsanitary urban situation of the hospital, the local authorities were more concerned about urban aesthetics and prestige, than about the health of the patients. And yet, the Congo Free State administration eagerly waved the 'flag of philanthropy' as the hospital was given a prominent place in state-funded pro-colonial periodicals (Image 17).[121]

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121. As Delathuy (1985, p. 5) ironically characterized philanthropic pretense under the Congo Free State.

Le pavillon de l'*Association congolaise et africaine de la Croix-Rouge*, à Boma.
(D'après une photographie de M. Shanu.)

LE SERVICE DES SECOURS MÉDICAUX

Image 17 . Colonial propaganda and the *Hôpital de la Croix Rouge*

Although not funded or supported by the government, state-funded propaganda nevertheless eagerly deployed the *Association*'s hospital to billboard the philanthropic intentions of King Leopold. In an article of the pro-colonial *Le Congo Illustré*, an image of the hospital featured prominently, and the medical complex was directly used to make bold, and rather exaggerated claims about the Congo Free State's healthcare services:

'Telle a été l'organisation du service des secours médicaux au Congo. On le voit, rien n'a été négligé pour atteindre le but humanitaire que l'on poursuivait et nous pouvons dire avec fierté qu'en Afrique il est peu de pays neufs aussi bien dotés sous ce rapport que notre future colonie.'

Le Congo Illustré, 1895, 4(12), pp. 91-92.

1/LARGE

The roots of the 'medical model colony':
The *Plan Renkin*

After his six months of travelling across the newly acquired Belgian Congo, Jules Renkin, the first ever Minister of Colonies, came back a realist. Mere weeks before he had left, Renkin still saw the new colony as an inexhaustible goldmine that would yield the *Métropole* an infallible return on investment.[122] During his travels, however, he experienced firsthand the many ravages the former red rubber regime had caused, and was confronted with the enormous economic, social, and infrastructural challenges the colonial territory was facing. Belgian Congo not only lacked the economic framework – roads, railways, and harbors – for an efficient 'mise en valeur,' the appalling absence of social amenities also threatened to undermine the attempts of the new Belgian colonial government to shed the tainted stigma inherited from the Leopold exploitative regime. After his return, Jules Renkin in response developed an ambitious investment plan aiming to tackle both problems by improving both the economic and social framework of the colony. His infrastructural program – here termed the *Plan Renkin,* mirroring the future construction campaigns of the *Plan Franck* and the *Plan Décennal*[123] – of course still primarily focused on economic extraction, through investments in Congo's road, rail- and waterway infrastructure. Nevertheless, the *Plan Renkin* also

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122. This had been the crucial argument that had swayed the Catholic Belgian party in favor of the takeover of the Congo Free State. See e.g. Viaene (2009).

123. See respectively 2/L and 3/L. On the 'mise en valeur' of Belgian Congo, see 2/L.

tried to remedy the brutal shortage of social facilities in the colony, in particular by outlining a program for Congo's first network of healthcare infrastructure. Apart from several medical centers for Europeans and sleeping sickness lazarettos across the colonial territory, the plan foresaw the 'construction d'hôpitaux pour noirs' in every of the fifteen districts the Congo counted at the time, as well as in a few other large or economically strategic outposts.[124]

The realization of this vast construction campaign and its *réseau hospitalier*, however, required an efficient administrative framework capable of coordinating and implementing this unprecedented undertaking. Authors such as Peter Scriver and Jiat-Hwee Chang have already explored the necessity and workings of such framework in their work on comparable colonial construction programs in India and Singapore. They've argued that to fully comprehend the history of the colonial built environment, the colonial apparatus that supported this built production – or what they termed the 'scaffolding of empire' or the 'building of building' – needs to be analyzed as well.[125] This allows not only to understand how this environment was realized in the first place, but also to unpack the political goals or 'spatial governmentalities' behind colonial infrastructures and buildings.[126] Both scholars have highlighted how colonial administrations developed and deployed a panoply of 'techniques of government' to facilitate such vast construction campaigns, ranging from mappings, statistics and increasingly efficient communication techniques, to mundane methods of documenting, copying and archiving.[127] Perhaps the most important of these techniques, however, was the use of type-plans, deployed from administrative headquarters as 'technologies of distance.'[128] As Scriver and Chang, as well as other authors have shown, plans of military barracks, housing, administrative buildings and hospitals circulated throughout the British empire and were used and re-used across the globe as the most cost-effective and least labor-consuming method to realize construction campaigns comprised of numerous comparable building programs.[129]

When Belgium inherited the Congo Free State, however, an administrative scaffolding, equipped with specialized governmentality techniques, was virtually non-existent. Under King Leopold, the colonial state had been almost exclusively focused on extracting as much resources with as little investments or manpower as possible. In 1909, the year Renkin officially launched his unprecedented infrastructural program, the local administration did not even have a separate

124. Chamber of Representatives, 3 December, 1909.
125. Chang (2016, p. xx) and (Scriver, 2007b).
126. On 'spatial governmentality,' see Merry (2001). We have also deployed the concept in relation to colonial hospital infrastructure in an earlier publication, see De Nys-Ketels, Lagae, et al. (2019).
127. Chang (2016, p. 252), who builds further on Foucault (1994, pp. 244-245).
128. Chang (2016, p. 10).
129. See also Milheiro and Burke (2017); Salami (2016); Santiago Faria (2014); Sengupta (2010).

Public Works department. During the Congo Free State period, the few officials that were responsible for the construction of infrastructure and public buildings were not part of an autonomous service, but functioned under the *Service de la Marine*, again confirming how transport infrastructure to ship resources in and out of the colony had been the primary objective. The profession of architects, moreover, was considered completely superfluous in the colony. Instead, engineers – often attached to or trained by the military – were the main specialists responsible for colonial design and construction.[130] A distinct medical service did not exist either. The mere thirty doctors active in the colony in 1908, also operated under the colonial military, and while several *Commissions d'hygiène* were officially responsible for 'l'amélioration de l'état sanitaire general' in several of the largest colonial outposts, these had often remained dead letter.[131]

In this *large* scale, I trace the first of Belgian Congo's three large-scaled hospital construction programs. For this first and unprecedented undertaking, the colonial apparatus inherited from the Congo Free State provided the new Belgian administration with an only limited 'scaffolding,' and posed the ambitious new Belgian government with several challenges. Renkin and the central authorities had to develop an administrative framework to efficiently implement this program from scratch. They not only attempted to elaborate the government branches necessary for this construction campaign, but also developed a first set of hospital type-plans. Similar to what Chang and Scriver described in the British colonial empire, these had to function as 'technologies of distance,' and facilitate the efficient construction of a considerable number of similar hospital buildings across a territory as vast as Western Europe. Despite these efforts, the central government still underestimated the challenges such endeavor posed to the colonial apparatus, which simply proved not elaborate or professionalized enough to manage and control its implementation. Within this relative vacuum of administrative control, local administrators could easily redeploy the means and building materials intended for hospital construction for their own local agendas of building. Due to these problems of 'scaffolding,' the steep ambitions of the *Plan Renkin* largely remained dead letter. Nevertheless, as the central authorities instigated a commission to chart and tackle these issues, the *Plan Renkin* would still turn out an important learning ground for the later, and much larger hospital construction campaigns of the interbellum and the post-war period.

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130. The design of early colonial buildings often reflected the military and engineering background, as for instance shown by Lagae (2002); Toulier, Lagae, and Gemoets (2010).

131. Dubois and Duren (1947, p. 5).

Type-plans and the founding of a colonial apparatus

On the third of December 1909, the Belgian Chamber of Representatives officially approved the Renkin's proposal for 'travaux publics divers' in Belgian Congo.[132] His plan was the result of his extensive travels across the colony, and close collaboration with local administrators, whom he had urged to recommend an extensive list of urgent infrastructural works necessary for the development of the colony. Although this plan had to materialize the clean break the new Belgian administration aimed to make with the former Leopoldian regime, its main emphasis only differed slightly from the exploitative economic policies of the Congo Free State. With over 14 million destined for various transport infrastructures out of the total *budget extraordinaire* of roughly 17 million francs, the *Plan Renkin* still clearly aimed at maximizing the amount of resources the colony could export to the *métropole*.[133] Nevertheless, it marked an improvement compared to nearly inexistent healthcare investments under King Leopold, even if the limited sum of around 700 000 francs booked for healthcare matters indicates that the widely proclaimed philanthropic policymaking of the new Belgian colonial government should be taken with a grain of salt.[134]

While the colonial government's direct investments to Renkin's plan for a network of healthcare infrastructure remained limited, the budget for colonial hospital construction nevertheless took an important step forwards, thanks to contributions from the newly crowned King Albert. After the official transfer of the colonial territories by King Leopold to the Belgian state, the new colonial administration versed a *Fonds Spécial* of fifty million francs to the monarchy as a 'témoignage de gratitude.'[135] Leopold could to use the fund as he pleased, and aimed to deploy it for prestigious metropolitan building projects. A year later, however, the monarch passed away, and the prestigious 'projets personnels qu'il rêvait de réaliser au moyen du fonds spécial,' died with him.[136] When the new King Albert inherited the fund from his uncle, he quickly decided to steer back these finances towards the colony rather than use it on Belgian soil.[137] From then onwards, the royal budget was destined to lend additional financial support to the *Plan Renkin*, and was particularly directed 'en faveur du Congo pour l'utilité et

132. Chamber of Representatives, 3 December, 1909.

133. From 1894 onwards, the financial services of the colonial administration made a distinction between the *budget ordinaire* – the recurring costs of personnel and onderhoud – and the one-time investments of the *budget extraordinaire*.

134. Other authors have already indicated that policymaking in several key domains – forced labor forms a case in point – in fact remained relatively unchanged after the cession of Belgian Congo. See e.g. Fernández Soriano (2017); Higginson (1989); S. H. Nelson (1994).

135. Stengers (1963, p. 21).

136. Stengers (1963, p. 11).

137. This becomes most clear in the case of the 'Ecole Mondiale,' a prestigious project launched by King Leopold of which the large cost of 15 million francs would originally be funded by the *Fonds Royal*. After the death of his uncle, however, King Albert decided to put a halt to the project, even though construction works had already started. Stengers (1957, p. 283).

le bien-être des indigènes.'[138] Indeed, in contrast to the official public healthcare budget, which had been limited in comparison to the overall *budget extraordinaire*, the financial post for 'hygiène du Congo belge; hôpitaux pour noirs et divers' accounted for around a third of the total annual budget of the *Fonds Spécial*. [139]

Funded both directly by the colonial government's own annual budget, and indirectly through the royal *Fonds Spécial*, the *Plan* Renkin – and its healthcare campaign in particular – was an unprecedented building program. Next to general 'grands travaux hygiéniques,' which ranged from the 'débroussement' around colonial outposts, to the 'pétrolage' of water pools containing the larvae of mosquitos, the healthcare program focused on the construction and restauration of hospital infrastructure across the colony. In order to efficiently realize this ambitious building campaign, Renkin immediately implemented several important administrative changes. Only a month after the official launch of the *Plan Renkin*, a distinct medical service was founded that represented and grouped together the rapidly growing number of colonial doctors. The number of only thirty colonial doctors active in 1908, quickly rose to over eighty by the beginning of the First World War.[140] As there were still very few hospitals operational in the colony, most of these doctors worked as 'médecins itinerants,' and focused on containing the sleeping sickness epidemic that was sweeping across the colony.[141] Under this system – which later became known as the *recensemment médical* – doctors travelled from one village to another, quarantining sick inhabitants, issuing warrants of public hygiene, as well as stamping off *passeports médicaux*, and collecting unknown demographic information.[142]

Despite their growing numbers, colonial doctors still had little say in Congo's healthcare policies. Operating from Boma, the *Direction des Services Médicaux* functioned much more like a satellite branch of the Brussels *Ministère des Colonies*, than as an independent administrative service. Its main tasks were to 'centraliser les renseignements, de coordonner les efforts et d'organiser méthodiquement

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138. Stengers (1957, p. 21).

139. Jean-Luc Vellut (1992, p. 67) noted that this royal fund exclusively 'subventionna des hôpitaux au Congo.' This, however, was not the case. The fund was divided in yearly allocations, which averaged on around 3 300 000 Francs, of which 1 000 000 to 1 500 000 Franks were destined for the medical service and 500 000 for the construction of new hospitals and lazarets. See AA/H 862, *Budget Fonds Spécial*, several *Annuités*.

140. Rodhain (1948, p. 1460). Parallel to the *Direction des Services Médicaux*, additional administrative bodies were founded during these decades that were also related to healthcare services. Especially the *Service d'Assistance Médicale aux Indigènes* would have important consequences for private hospital construction from the 1920s onwards. Burke (1992, p. 96) explains how this *Service d'Assistance Médicale aux Indigènes* signed several conventions with missionary organizations and private companies, which were at the basis of later medical decrees obliging (large) employers to provide medical care to their Congolese employees. Much of the hospital infrastructure constructed by private companies throughout the 1920s and 1930s would be subsidized and sometimes even designed by the colonial administration, as will also be briefly discussed in 2/L.

141. For a critical study of sleeping sickness in early Belgian Congo, see Lyons (1992).

142. This early *médecine itinérante* remained an improvised and small-scaled operation. As Rodhain (1948, p. 1460) described: 'Les déplacements des médecins ne pouvaient se faire que par voie d'eau, le plus souvent en pirogue ou par d'étroits sentiers indigènes. Ils étaient forcément lents.'

l'activité médicale.'[143] Apart from collecting various biostatistics – annual hospital and lazaretto reports, mortality and morbidity rates, vaccination figures, and information on the hygienic state of colonial outposts – in order to pipeline this data through to the *métropole*, this mainly meant supporting the central authorities of Boma and especially Brussels in executing the unprecedented hospital construction program.

In a colony as large as Western Europe, and with an administrative framework that had been set up during the Congo Free State period to support exploitation economics rather than a colony-wide public works program, this was a challenging endeavor. Apart from the medical centers for Europeans, 23 hospitals for Africans were planned under the *Plan Renkin*. Their construction would follow a two-step process: building materials such as cement, corrugated roofing and ceramic tiling were first shipped to the twelve outposts that were most easily accessible. After this first phase, the remaining eleven localities, of which most were located in the eastern parts of the colony, would be supplied with the necessary resources and materials. To facilitate this task, Minister Renkin proposed to deploy standardized plans as an efficient means to construct these similar hospitals:[144]

> *Afin de fixer la marche à suivre pour l'exécution des dits hôpitaux pour noirs, j'ai l'honneur de vous faire savoir que tous les chefs-lieux de districts et de zones devront être pourvus à bref délai d'un hôpital établi en se guidant sur le schéma joint à la présente lettre.*

This 'Schéma d'installation d'un Hôpital pour Noirs' was the first of many type-plans for hospitals that would be developed throughout Belgian Congo's existence. Just as its successors, the design was a pavilion typology and followed many of the design principles considered crucial for a well-functioning 'machine à guérir' in hospital planning at the time. Patients entered through the central front pavilion, where they were to be examined in the 'salle de visite' and referred either to the operation room or to the dormitories which were divided by sex and pathology. These patient wards were not only separated to optimize airflow and ventilation, but also served as an optimal way to control various groups of patients, since each dormitory was supervised by a 'chambre d'infirmiers.' As was common in contemporary best practices of hospital design, contagious logistical services such as toilets, the incinerator or the morgue, were either detached from the patient wards, or positioned in the back of the hospital complex.

That these type-plan followed the pavilion typology, however, was not only driven by concerns of hygiene or control, but also by more practical considerations. The Belgian authorities sought to improve Congo's tainted reputation as quick as possible by implementing a more philanthropic policy approach, yet lacked

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143. Dubois and Duren (1947, p. 6).
144. AA/H 4390, letter from Minister of Colonies Jules Renkin to *Gouverneur Général* Théophile Wahis, 2 December, 1910.
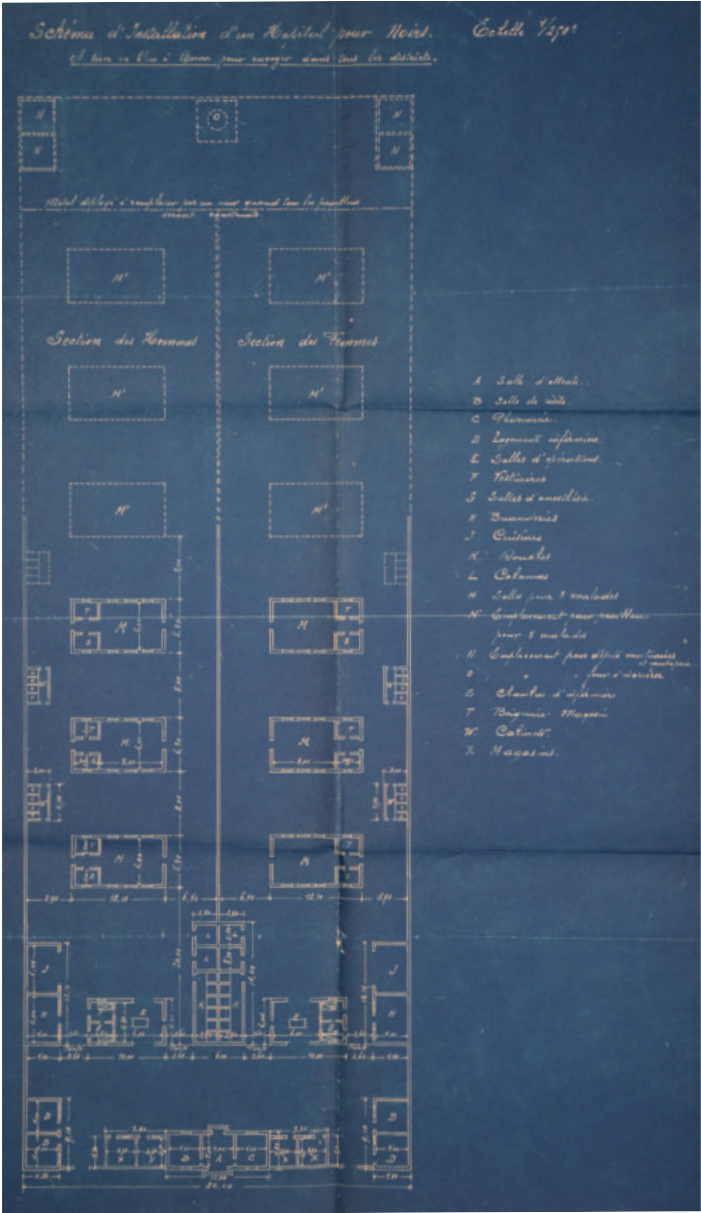
Image 18 . *Schéma d'installation d'un Hôpital pour Noirs.*

This was the first type-plan for hospitals of the Belgian colonial period. Developed by the Brussels Ministry, it was sent it to the Congolese *Gouvernement Général* with the clear instruction to 'tirer en bleu à Boma pour envoyer dans tous les districts,' as the subscript of the plan indicated. As such, the plan was clearly conceived as a 'technology of distance,' aimed to allow the colonial government to efficiently implement colonial policies on the ground from its central administrative center.

1909, AA/H 4390.

the time, means, or technical personnel to do so. Within these challenging circumstances, the pavilion typology offered a cheap and easily executable building design. If the single-story pavilions already demanded quite the logistical effort, as construction materials ranging from cement to nails, metal beams and corrugated roofing were shipped to the many remote places where hospitals had been planned, more complex designs would have certainly proven too costly and difficult to realize.[145] Moreover, most of the colonial personnel working in early Belgian Congo still lacked the expertise to erect multi-story buildings, and even the brick, single-story design of the type-plan demanded a technical skillset many of the local colonial administrators did not possess. As a solution, Minister Renkin decided to ship off additional specialized staff to the various colonial outposts, and by the end of 1910, most of these experts were on their way to Boma.[146]

Yet perhaps the most important feature of the pavilion typology plans – and certainly the aspect that would prove the most vital in later hospital type-plans[147] – was their flexibility. The design was conceived as a modular plan, with spacing for future pavilions already calculated into the design. As Jules Renkin explained:[148]

> *On établira d'abord les pavillons jugés indispensables, ainsi que toutes les annexes, et de nouveaux pavillons leur seront ajoutés plus tard à mesure des besoins. Le plan général sera établi de manière que les pavillons à construire plus tard puissent être placés dans le prolongement des premiers.*

As such, the central authorities envisioned that these hospital complexes could be easily extended or adapted in accordance to the available budget, building materials, or in response to local healthcare needs. However, despite this modularity, the administrative reforms, the additional staff, and the easily executable design, the implementation of the *Plan Renkin* still did not go according to plan. As explained in the next sections, while the central authorities gravely underestimated the central colonial apparatus necessary to 'scaffold' such an ambitious construction program, local Belgian administrators also prioritized other, often personal building agendas over hospital infrastructure for Africans.

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145. As Renkin said, 'J'enverrai d'office … du ciment des charpentes métalliques, des couvertures en tôle, des carreaux céramiques et des menuiseries dont le détail est indiqué sur la note ci-jointe. Le restant des matériaux nécessaires devra être trouvé surplace.' Ibid. Interestingly, food was also sent from Brussels 'destinés à l'entretien des travailleurs noirs qui seront employés à l'érection des hôpitaux, qui doivent être construits dans les localités précitées.' AA/GG 15180, Letter from the *Ministère des Colonies* to *Gouverneur Général*, 25 April 1911.
146. AA/3DG 1275, Circulary letter from *Gouverneur Général* Fuchs to various *Commissaires de District*, 24 March 1910.
147. See discussions of type-plans in 2/LARGE, and especially in 3/L.
148. Ibid.

A shaky central 'scaffolding'

Already in the first two years after the official launch of the *Plan Renkin*, the news started reaching Brussels that the planned hospital network was turning out little more than a pipe dream. While the Minister was mainly kept in the dark about the progress of the plan,[149] he nevertheless became wary of malpractices with funding and building materials that were likely occurring in Boma. While the various materials for healthcare infrastructure had already been transported from Antwerp to Boma – with ample extra margins – the *Vice-Gouverneur Général* filed repeated requests to the Brussels Ministry for additional shipments. These demands raised suspicion, and the Minister was quick to warn local policymakers that 'les matériaux envoyés ne pourront, qu'exceptionnellement, être détournés de l'usage pour lequel ils sont destinés', and that 'agir autrement serait méconnaître le but humanitaire du Donateur.'[150]

The Minister's suspicions were justified. That malpractices were effectively widespread within Boma's administration, became clear a few years later, when the Minister sent a Commission of inquiry to the colonial capital to assess the situation and propose future solutions.[151] The head of this commission was Hector Maertens, the then acting head of the Public Works Department at the Brussels Ministry of Colonies.[152] Together with his right hand and accounting expert Paul Closet, he would start by looking into the books of the central *Gouvernement Général* in Boma, and would then travel to various colonial outposts to scrutinize the local situation. After only two weeks in the capital, however, both officials already realized that the situation was much worse than officials in Brussels had imagined, and that 'cette situation ne date pas d'aujourd'hui.'[153]

While Maertens had hoped to quickly browse through the local archives of Boma's Public Works branch, many of the dossiers he had requested from the *Directeur des Travaux Publics* turned out 'incomplets' and had not been properly inventoried. This prevented Maertens 'd'en effectuer le contrôle,' which, according to Maertens, was rather convenient for Mr. Van Acker, the head of the Public Works branch, whom Maertens deemed truly incompetent.[154] The collaboration between Maertens and Van Acker remained slow and strenuous. Maertens not only accused him of consciously omitting data from the dossiers that would

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149. As he repeatedly urged the *Gouverneur Général*, 'nous ignorons à quels points en sont les travaux en cours d'exécution. Je vous prie de me donner des indications complètes au sujet de ces travaux.' To my knowledge, however, the *Gouverneur Général* never answered these requests. AA/ H 4390, Letter from *Ministre des Colonies* Jules Renkin to *Gouverneur Général*, 2 December, 1910.

150. AA/H 4390, Letter from Minister of Colonies Jules Renkin to *Gouverneur Général* Théophile Wahis, 10 January, 1912.

151. AA/GG 15812, Letter from Hector Maertens to *Ministre des Colonies*, 18 April, 1913.

152. On the *Mission Maertens*, see also Lagae (2002, pp. 43-46), who has particularly focused on the effect this mission had on the changing role of the architect in the colonial public works department.

153. AA/GG 15812, Letter from Hector Maertens to *Ministre des Colonies*, 27 January, 1913.

154. AA/GG 15812, Letter from Hector Maertens to *Gouverneur Général*, 4 January, 1913.

prove his mistakes and violations, but also of squandering the limited manpower available to the administration. Eventually, Maertens became completely fed up with the *Directeur*'s 'jeux d'interpretations qui font perdre son temps et le mien. Je ne demande pas des paroles mais des dossiers.'[155] Van Acker, on the other hand, still maintained that he was doing everything in his power to facilitate the mission, but that 'la pénurie de personnel; vaste programme de travaux en perspective; augmentation des travaux dans les districts du Congo ; surcroit de besogne par suite de la Mission Maertens' had caused an 'encombrement' of his personnel.[156] Moreover, he also criticized the 'inqualifiable attitude de Monsieur Maertens,' stating that his critique on Boma's Public Works branch only served to wrongfully discredit his overworked yet zealous staff:[157]

> *S'il est toujours désirable de voir en charge un homme d'une compétence reconnu du soin d'améliorer les rouages des services administratifs […], il est profondément triste de voir recourir à des critiques systématiques et obliger des fonctionnaires surchargés de besogne et manquant de personnel à se justifier d'accusations émises avec une légèreté incroyable.*

The Minister, however, questioned whether the local staff was really that overburdened, writing that 'en 1910-1911 l'Afrique a disposé d'un personnel formidable pour les travaux publics. Le résultat a été nul et jamais la Colonie n'a payé plus pour les logements d'agents à l'hôtel qu'en 1911.'[158] Particularly that the specialized personnel, which the Minister had sent to colony for the hospital construction campaign at the request of the local administration, was now squandered in the hotels of the capital, seems to have touched a nerve. In the end, Maertens' accusations of local incompetence effectively seem to have cost Van Acker his post as head of the Public Works branch, as he abruptly retired in 1914 and was never recruited again by the colonial administration.[159]

Meanwhile, Paul Closet had been taking stock of the building materials present at Boma's storehouses, but this too proved a challenge. As Maertens reported:[160]

> *M. Closet, adjoint de la mission, que j'ai chargé du contrôle des magasins, est complètement arrêté dans son travail […] Des marchandises de toute nature et de toute valeur se trouvent en effet, éparpillées depuis deux, trois ans et plus sur la Place de la Marine, derrière et sur les côtés des ateliers et magasins. Beacuoup d'entre elles sont fortement détériorées … L'ensemble laisse une impression des plus pénibles. Il est absolument impossible d'établir un inventaire sérieux.*

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155. AA/GG 15812, Correspondence between Hector Maertens and *Directeur des Travaux Publics*, 6 January, 1913.
156. AA/GG 15812, Letter from Hector Maertens to *Gouverneur Général*, 3 April, 1913.
157. AA/3DG 1275, Letter from *Directeur des Travaux Publics* to *Gouverneur Général*, 4 August, 1913.
158. AA/3DG 1191, Letter from *Ministre des Colonies* Renkin to *Gouverneur Général,* 7 November, 1913.
159. *Biographie coloniale belge* 1955, pp. 1-2).
160. AAGG 15812, Leter from Hector Maertens to *Gouverneur Général*, 19 January, 1913.

Image 19 . *Les magasins de la Marine et des Travaux Publics à Boma.*

When passing by the administrative Public Works branch in the colonial capital, Maertens and Closet were confronted with messy archives and ill-maintained storage rooms, as building materials and tools were scattered across the various depots. While the image here remains unclear, it seems that 'marchandise de toute valeur' was indeed left out in front of the storehouse, which, in the tropical climate, must have caused damage in the long run.

ca. 1900, from album "*District de Boma*", MRAC, HP.1938.934.2-54.

While Maertens left the capital on a tour to inspect various colonial outposts, Paul Closet continued prying into the accounts of the Boma's *Gouvernement Général*. In his 'rapport sur l'examen de la comptabilité de la Direction des Travaux Publics,' he paints a grim picture of the state of the archives of the local administration:[161]

> *Archives mal tenues, archives non inventoriées, non classées, accumulées sans soin depuis des années […], archives mélangées où l'on trouve des documents de la Marine mêlés à ceux des travaux publics, des notes de crédits perdues au milieu de plans, des questions de personnel au milieu de questions de briques […], de lettres non remises en places depuis des mois et des mois et encore des plans non classés, ni inventoriés. On est écœuré devant tant de désordre anti-administratif et l'on a une piètre idée de ceux qui surent vivre jusqu'ici dans ce désordre qu'on ne peut qualifier.*

In these messy archives, Closet figured it was no surprise that local officials were continuously committing flagrant errors against the most basic government accountancy rules. The most common mistake was that Public Works Service never added any necessary explanation to their budgetary requests. While local officials

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161. AA/3DG 1275, Report by Paul Closet on *Mission Maertens*, 9 December, 1913.

had demanded the extensive sum of over seventeen million for the infrastructural works under the *Plan Renkin*, 'jamais la Direction des Travaux Publics n'a fourni à l'appui de ses propositions budgétaires […] aucun projet convenablement établi accompagné de plans, métrés, devis notices,' revealing that in fact 'les sommes demandées […] étaient hautement fantaisistes.'[162] For Closet, the bottom line was simple: 'Tout ceci prouve que les services locaux jonglent avec les articles du budget et ne respectent pas les instructions formelles de Monsieur le Ministre.'[163] Responding to these accusations, the *Gouverneur Général* acknowledged the 'abus frequents' his local staff in Boma too often committed:[164]

> *Trop souvent, les ressources d'entretien sont utilisées à des travaux dont le seul objet est d'arranger un immeuble, d'ailleurs en excellent état, suivant les goûts personnels et les convenances du fonctionnaire qui désire l'occuper. […] Pareille dépense d'entretien peuvent devenir de véritables dépenses de luxe.*

On the one hand, the passage of Closet and Maertens through Boma's central administration painstakingly revealed how the ambitions and aspirations of the *Plan Renkin* were out of tune with the capacities of the local *Gouvernement Général*. As the central administrative apparatus seemed to have lacked the specialized personnel necessary to manage the bureaucracy of bookkeeping and archiving such a colony-wide building program entailed, the new colony's inherited 'scaffolding of empire' could simply not yet support the ambitions of the metropolitan Ministry. On the other, however, the scorching reports of Closet also brought to light that the struggles and delays during the implementation of the *Plan Renkin* were not only the consequence of a shaky central 'scaffolding' forced to implement an overambitious plans with limited means and manpower. It also revealed that the few officials that were available in Boma may have consciously disregarded metropolitan budgetary directives. Though the scarce archival sources of this period fail to explain why exactly these local officials did so, they might have simply ignored archival procedures for their daily convenience, but could also have juggled with financial posts to funnel government funds to their own local policies or personal projects. In his work on healthcare in early colonial Congo, Jean-Luc Vellut already hinted at such fraudulent abuse of government funding for personal use:

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162. AA/3DG 1275, Report by Paul Closet on *Mission Maertens*, 9 December, 1913.

163. Original emphasis. This was despite the fact that the 'réglement général sur «l'Administration et la Comtabilité» définissait cependant déjà clairement le devoir incombant à tout chef de service de la Colonie,' which was based on the *Journal* and stipulated clear requirements for the numerous accountancy books, including the *livre de caisse, livre d'entrée et sorties, livre d'inventaire et magasins*, etcetera. Again, it is hard to gage whether such administrative tasks were feasible, or simply too much to ask from the limited staff of the Public Works Department. AA/3DG 1275, Letter from Paul Closet to *Gouverneur Général* Félix Fuchs, 18 November 1913.

164. AA/3DG 1275, Letter from *Gouverneur Général* to *Ministre des Colonies*, 1913.

A partir de 1911, un fonds de 50 millions subventionna des hôpitaux au Congo. […]
La volonté politique ne suffit toutefois pas à changer les habitudes: c'est le hasard qui
fit découvrir à Bruxelles que les hôpitaux subventionnés n'existaient que sur le papier,
et que le fonds passait notamment à expédier des caisses de «produits pharmaceutiques
» où ne manquaient ni le champagne ni le foie gras.[165]

If the accounts of Closet contain only vague clues of corruption at the central level of the colonial apparatus, the reports of Hector Maertens' travels across the colonial hinterland are much more explicit. As the next section discusses, the shaky central administration had little to no control over what happened in the remote colonial outposts, and within such vacuum of power, local officials often chose their own agendas and priorities over that of the Ministry, the *Gouvernement Général*, or the local African population.

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165. Vellut (1992, pp. 66-67).

Local challenges, improvisations and malpractices

The word that local officials were abusing the funding of the *Plan Renkin* for different, personal purposes, had actually already reached Brussels before the *Mission Maertens*. When Prince Albert travelled across Congo, the future monarch was accompanied by doctor and *Vice-Gouverneur Général* ad interim Justin Malfeyt. After the official tour with the Prince, Dr. Malfeyt continued travelling 'à diverses missions d'inspection notamment dans le Kasai et dans l'ancienne concession de l'Abir.'[166] He wrote down his observations in a devasting report, in which he particularly condemned the dire healthcare conditions for the Congolese population. In several of the colonial outposts he visited, he described the deplorable state of lazarettos or hospitals he came across. In Nouvelle-Anvers, for instance, he characterized what Brussels believed to be one of the best-equipped lazarettos of Congo as 'inexistant,' saying that 'plus de deux cents malades sont parqués dans un enclos où quelques misérables huttes les abritent. L'impression est des plus pénibles.'[167]

In his report, Justin Malfeyt pointed the finger at local officials, who opportunistically re-appropriated government funds and building materials for their own, private use, often at the expense of the healthcare needs of the Congolese. When accused, many of these local administrators blamed the systemic budgetary shortages in colonial Congo. Yet, according to Malfeyt, whereas these officials allegedly lacked the budget necessary to construct medical infrastructure, they nevertheless found the means to erect their own, often rather luxurious residences:[168]

> *En se défendant de [ne pas] posséder les moyens nécessaires, ils exagèrent et cela est flagrant quand on constate les résultats obtenus par ces mêmes chefs territoriaux dès qu'il s'agit de travaux qui sont de leur conception, qui rentrent dans leur programme. […]*
>
> *Dans un chef-lieu de district on peut observer ce cas typique. Une maison d'habitation à étage aux vastes proportions où la dépense de matériaux, briques et bois, constitue un véritable gaspillage. Des murs de quatre briques au rez-de-chaussée, de deux briques et demie à l'étage. Près d'un million de briques ont été employées à cette construction soit la production des ateliers de la station pendant deux ans. Puis un peu plus loin un hôpital pour noirs où l'économie la plus sévère n'a permis d'édifier que des murs d'une seule brique et de dimensions si réduites que le local ressemble plutôt à un chenil qu'à une salle d'hôpital.*
>
> *Gaspillage d'un côté, économie outrée de l'autre. C'est malheureusement la manière fâcheuse de beaucoup de nos fonctionnaires et il n'y sera mis un terme que lorsque le Gouvernement leur aura interdit une bonne fois de construire au gré de leurs caprices.*

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166. *Biographie coloniale belge* 1952, p. 588).
167. AA/H 842, Report of *Vice-Gouverneur Général* Malfeyt, 4 January 1910.
168. Ibid.

By the time the *Plan Renkin* was being implemented, this 'capricious' local policymaking was still widespread, and, as becomes clear from reports of the *Mission Maertens*, healthcare infrastructure was still likely one of the first building projects local officials forfeited as they sought to realize their own priorities. During his travels across various outposts, Maertens noted time and again how local branches violated the most basic rules of accountancy and stock-taking. Local archives weren't properly inventoried, financial bookkeeping was not kept up-to-date, making it hard to gage what budgets were being used for, and storage of building materials was often a fiasco. As Maertens complained for Coquilhatville, for instance, already one of the larger centers of the colony, local officials simply didn't label arriving building materials by 'destination' or construction project. The result was that 'tous les matériaux destinés aux hôpitaux pour noirs et lazarets, tels que tôles, poutrelles, menuiseries' were either 'parsemé un peu partout' across town, or had been reused for other projects without leaving a clear trace in the local logbooks.[169] In smaller outposts, the situation was even worse, as storage facilities often simply did not exist. In the hot and humid climate, this meant that iron roofing was left to rust, and especially cement quickly perished.

From the start of the *Mission Maertens*, cement had been a main concern. Based on the *Plan Renkin* and the records of the *Gouvernement Général*, Maertens had mapped out the amount of cement barrels destined for each district seat. Wary of how local officials had often neglected hospital construction in the past, he also charted the proportionate quantities reserved for healthcare infrastructure (Image 20). When Maertens started touring across various colonial outposts, he counted the number of cement barrels present, and quickly realized that much of this already scarce commodity had gone missing, without a trace in the books. Of course, this was often by force majeure, as cement was being lost during transport or was wasting away in storage. Nevertheless, although the archives of the *Mission Maertens* remain suggestive, his travel reports indicate that district commissioners likely deployed cement for other building projects such as administrative buildings or personal residences, instead of the healthcare infrastructure for Africans it was originally intended for. As will be discussed in more detail in the next chapter, this also meant that that district commissioners or their subordinate local doctors often resorted to African building materials and methods that were deemed unhygienic and non-durable for hospital construction. This is all the more striking considering the fact that colonial propaganda boasted the new Belgian colony's healthcare infrastructure realized under the *Plan Renkin* as medical facilities constructed according to the latest insights in contemporary hospital planning.

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169. AA/3DG 1275, *Rapport sur Coquilhatville* by Hector Maertens, 31 August, 1913.

Image 20 . *Graphique de répartition du ciment dans la Colonie.*

Maertens' mapping of the *Plan Renkin*'s planned cement transport reveals how hospital infrastructure constituted an important part of the construction program. His mapping functioned as a benchmark that Maertens could use when passing through various colonial outposts, allowing him to determine how many cement barrels had been lost along the way, or whether local officials deployed the cement for different purposes by local officials.

ca. 1913, AA/3DG 1275.

Image 21 . Type-plan hospitals in Basankusu and Inongo.

While archival and photographic material of this early colonial period is scarce, two images of the façades of type-plan hospitals in Basankusu and Inongo were nevertheless found. The photographs suggest that the same batch of building materials had been shipped off the various outposts - one only has to inspect the dimensions of the corrugated roofing to understand these followed the same standardized plans. Nevertheless, even these façaces show considerable differences: in Basankusu, the front pavilion had already been reduced - perhaps to reuse the valuable iron sheets for other building purposes, and in Inongo - as later plans reveal - several of the rear wards were scratched off from the flexible type-plan, allowing local officials to use scarce building materials for other projects. This could have also been the case in Basankusu, but no plans were found in the archives to confirm this.

Above: *Basankusu - Hôpital des Noirs, Fonds Spécial, ca.* 1913, MRAC, J. Engels, AP.0.0.13188.
Below: *Inongo - Hôpital Fonds Spécial, ca.* 1913, MRAC, L. Van den Broeck, AP.0.0.12427-1.
AA/GG 15316, *Hôpital d'Inongo: Plan de situation des bâtiments existants,* May, 1957.

Be it the result of local challenges of transport and storage, or of local officials clandestinely redeploying building materials, construction of six out of the twelve initially planned type-hospitals had not even begun by 1913, even though cement and other materials had already been shipped out two years prior. Moreover, in the remaining outposts where hospital infrastructure for Africans was being built, the type-plans were often being altered and scaled down considerably.[170] Rather ironically, the type-plans with the flexible pavilion typology hospital that Renkin had issued to facilitate the local implementation of his construction program, may have actually contributed to such clandestine local decision-making. Instead of executing the type-plans completely, district commissioners could quite simply erect the main entry pavilion or operation rooms, scratch off several of the sleeping wards, and deploy the building materials for other uses. Unfortunately, it is almost impossible to gage in hindsight the extent to which such funneling of means and materials happened. Archival material is scarce, and Hector Maertens did not inspect every colonial outpost where healthcare infrastructure had been planned, so his reports provide an only limited overview. Moreover, most of these early medical infrastructures no longer exist, which means current aerial photographs do not provide the same insight as they will in 3/L, where I will discuss the use of type-plans in the 1950s. Nevertheless, scraps of handwritten inspection reports of Hector Maertens, the annual state reports, and a handful of urban plans or *plans de situation* of hospitals do offer some clues of how the hospitals foreseen by the *Plan Renkin* were executed.[171] This analysis suggests how these plans were adapted and reduced by local officials, either to respond material shortages due to transport or waste, or to clandestinely reuse these means for other, local building projects.

As this mapping makes clear, the original objectives of the *Plan Renkin* were never realized. On the one hand, this was because its initial ambitions were simply too much to ask from the local colonial apparatus. The *Plan Renkin* was the first large-scaled infrastructural plan of its kind in the history of colonial Congo, and had to mark a decisive rupture with its atrocious past. After the annexation of Congo, the new Ministry suddenly imposed bureaucratic standards and procedures similar to those in sway in the metropolitan administration. While this testifies of a genuine attempt by the Belgian administration to professionalize the former bureaucracy of the Congo Free State, it also signals that the remote Brussels-based Ministry was rather oblivious to the on the ground challenges faced by the colonial staff. The goals and bureaucratic requirements of the *Plan*

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170. AA/H 4390, Note from unknown to *Directeur Général* of the Brussels Public Works Department, Hector Maertens, 10 February, 1913.

171. During the preparation of the *Plan Franck*, the second large-scaled construction program launched in the 1920s, central officials looked back on this period with exasperation. They still had no clue about the state of hospital infrastructure in the colony, and were critical of the fact that back 'en 1913 […], on a employé à d'autres usages les matériaux envoyés en Afrique pour construction d'hôpitaux.' AA/H 4390, Note from the Brussels *Section Hygiène* on Hôpitaux dans la Colonie, 11 March, 1920.
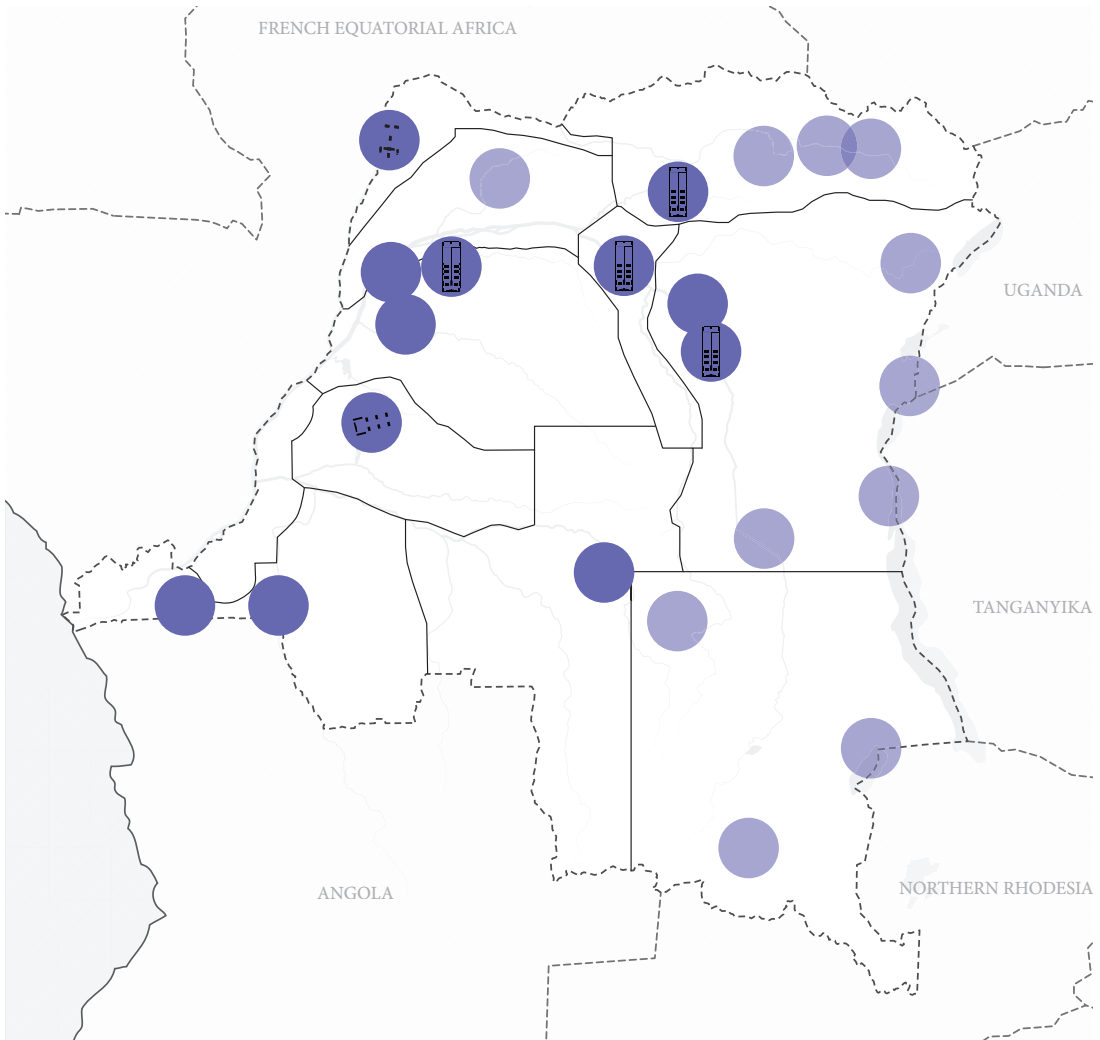
Image 22 . Incomplete realization of the *Plan Renkin*'s healthcare program

While hospitals would be constructed in the eleven posts (light blue dots) in a second phase, the first construction phase of the *Plan Renkin* consisted of 12 posts (dark blue dots) for which building materials were immediately shipped out and for which the type-plan would be deployed. Nevertheless, according to later annual state reports, only six of these would eventually be realized using the type-plans. I have found no traces in the archives that the second shipment of building materials was ever sent out. Moreover, later plans of the effective realization of the first six hospitals suggest that these were often reduced, either due to lost building materials, or because local officials re-used materials for other building projects.

Author's drawing based on various archival sources: *Rapports Annuels*, 1909-1920; AA/GG 15316, *Hôpital d'Inongo: Plan de situation des bâtiments existants*, May, 1957; AA/GG 12386, *Hôpital des Noirs, Libenge*, ca. 1920, as well as previously mentioned correspondence and photographs.

Renkin were not only overambitious for the central colonial apparatus, but also too big of a step for local officials. Most of these had only gained experience under the Congo Free State regime – when administrative standards had been virtually non-existent – and simply made do within the messy colonial reality of scarce financial means, shortages of staff, and perishing materials.[172] Nevertheless, while overambitious aspirations undermined the plan from above, fraud eroded its execution from within: in a considerable number of colonial outposts, these local officials clandestinely deployed building materials and government funding for other purposes than intended. As the *Mission Maertens* made clear, Belgian Congo's Public Works branches had to be urgently professionalized if future colony-wide construction programs were ever to be successful.

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172. This tension between alleged local incompetence and overambitious central aspirations was already at the time a major point of discussion. Former *Vice-Gouverneur Général* Georges Moulaert (1948, pp. 145-146), for instance, would later defend local officials from critiques from Brussels, effectively saying that many of the problems of transport were beyond their control: 'Un type de lazaret fut adopté à Bruxelles et on expédia les portes, fenêtres, tôles ondulées, lits et carrelages pour les parquets […] sans se préoccuper des possibilités de transport. Ces éléments ne pouvaient être amenés à pied d'œuvre que dans les postes desservis par les vapeurs ou le chemin de fer. Comment faire transporter par porteurs, sur des centaines de kilomètres ou en pirogues, des portes et fenêtres, des caisses de verre à vitre et surtout les tonnes de carreaux céramiques. On reprocha violemment aux autorités locales de n'avoir pas voulu réaliser le programme de la Reine. On avait oublié qu'en 1911/12, il était impossible de transporter tout ce matériel à Yakoma ou à Niangara, Kabinda, Irumu, etc…'

Towards an administrative professionalization?

Based on his observations during his extensive tour of inspection, Maertens ardently argued that the colony's branches of the *Travaux Publics* needed a complete transformation, rather than piecemeal improvements:[173]

> *On institue des Commissions pour étudier les moyens d'améliorer la situation actuelle qui est néfaste, on vernit le vieux chariot administratif de la Colonie et le vernis, usé, c'est à recommencer. Personne n'ose proposer aux grands maux les grands remèdes. Le chariot administratif actuel n'est pas à réparer, il est à reconstruire entièrement.*

Together with the Minister, Maertens proposed a double bureaucratic revolution for building practices in the Belgian colony. On the one hand, he suggested to completely restructure the bureaucratic 'scaffolding of empire.' The Public Works branches were to become an autonomous administrative Service, distinct from the *Service de la Marine*, and divided into several sections, including a *Section des Bâtiments Civils*. This reorganization also entailed decentralization. The Public Works Service in the capital was reduced to a 'service d'inspection,' while in the various districts, commissioners would be given increased authority to execute public works. Although this seems contradictory with Maertens' critique on local corruption, it entailed that every commissioner now became directly accountable for the execution and maintenance of public works within his own district. Nevertheless, he still built additional supervision into the administrative system, by stipulating that colonial architects had to function as important local consultants and that commissioners best refrained from making technical decisions on their own.[174] The reorganization thus envisioned architects as crucial local cogwheels in the elaboration and realization of public works on the ground. As a result, the technical requirements for working as an architect in the colony also became more severe. Maertens called for public exams to rank and select the best candidates. The test of course assessed the technical knowledge of applicants, but also required that the future architects were up-to-date with the latest principles of 'l'hygiène publique' and could produce 'plans complets de construction' of various building typologies, including hospitals. As such, Maertens' proposal for reorganization laid out the blueprint for colonial hospital design in the interwar period, during which Belgian architects would import personally acquired knowledge on hospital planning taught at Belgian architectural academies to the colonies, as will be discussed in more detail in 2/A.

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173. AA/3DG 1275, Letter from Hector Maertens to *Minister of Colonies* Jules Renkin, 12 June, 1913.

174. AA/3DG 1191, Report *Organisation du Service des Travaux Publics*, by Hector Maertens, 1 June, 1915. As Maertens wrote, commissioners were expected to 'laisser au chef de service des travaux publics le soin de rédiger, préparer toutes les instructions, rapports, marchés, plans, etc,… que ce dernier signera sous la rubrique: fait et dressé par le chef de service des Travaux publics. Le commissaire de district se contentera de signer pour «Vu».' For a more thorough description of how the *Mission Maertens* changed the role of architects in the colony, see Lagae (2002, pp. 43-46).

The second part of the proposal would perhaps have an even more profound impact on later government building practices in the colony. As the *Mission Maertens* had revealed that the existing Public Works branch in Boma was shaky and inadequate, the Minister again stressed the importance of type-plans and automatization as the ultimate solution to increase efficiency. Maertens envisioned a highly mechanized bureaucratic system of standardized plans, archiving, tenders, and financing that implicitly applied Taylorist principles to colonial policymaking. The aim was to develop a database or 'une série complète de plans⬚types avec devis et cahiers des charges pour tous les genres de constructions.'[175] Within this design catalogue, the various standardized plans would be attributed a unique identification code, and were to be organized and grouped together based on building typologies – residences, schools, hospitals, etc. Browsing through this inventory, the staff of the new *Service des Travaux Publics* would be able to quickly select the appropriate type-plans for a particular building project. Through their unique identification code, these type-plans were then automatically linked to the related tender documents, material lists and budgetary estimations the building project entailed. As Maertens and the Minister dreamt: 'Il suffira donc d'inscrire dans les développements des future budgets, le numéro et la série d'une construction pour que l'on soit immédiatement fixé sur le genre et l'importance de la construction prévue.'[176] This also meant that communication with other administrative branches would became greatly mechanized: the identification code would help both the financial services to automatically calculate the correct expenses, and the transport services to quickly identify which materials to gather and send out.[177]

But not only the central administrations in Brussels and Boma would be transformed into a well-oiled bureaucratic apparatus. This single identification code would also replace the ponderous chain of various, disconnected and often technically inexperienced officials and branches across the colonial territory. In each district, local architects would assist the district commissioners in elaborating a 'plan de campagne' which outlined a careful selection of type-plans, ordered along urgency and based on the specific building needs within each district.[178] As

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175. AA/3DG 1191, Letter from *Ministère des Colonies* Renkin to *Gouverneur Général*, 20 December, 1913.

176. AA/3DG 1275, Letter from *Ministère des Colonies* to *Gouverneur Général*, 10 December, 1913.

177. As the Minister envisioned: 'la série et le numéro de la construction, seront une indication suffisante pour permettre au service des commandes de l'administration centrale d'y donner une suite immédiate sans perte de temps.' The financial services, on their part, would multiply a fixed standardized cost with a correction factor based on 'les prix unitaires de l'endroit pour connaître le coût réel du travail.' Ibid.

178. AA/3DG 1191, Report *Organisation du Service des Travaux Publics*, by Hector Maertens, 1 June, 1915. While these local plans seemed to fit within the broader move towards decentralization, the Minister also stipulated that they were to become part of a larger, building program. Similarly, while the selection of type-plans was decided per district, the type-plans were designed in Brussels, simultaneously expanding and limiting the leeway of local policymakers. This paradoxical tendency of centralization and decentralization continued to mark Belgian Congo's politics. It was, according to Jean Stengers (1963, pp. 218-226), rooted in a double-faced fear for a repetition of a Leopoldian scenario where an unchecked – or decentralized – power was concentrated – or centralized – within a single policy figure, be it the King or the new Minister.

the result of a meticulous preparation by architects as technical experts, Maertens and the Minister fiercely believed these 'plans de campagne' would be infallible, and would allow to perfectly estimate the Public Works budget in advance.

The result of the *Mission Maertens* was a vision of the colonial government as a well-oiled machinery, with every cogwheel perfectly in sync with its other components. Even if largely unsuccessful, the unfinished *Plan Renkin* thus laid the groundwork in Belgian Congo for a growing belief in the infallibility of an 'empiricist' 'scaffolding of empire.'[179] Such colonial empiricism was not only marked by a modus operandi in which the technical and scientific expertise of engineers, architects and doctors increasingly defined colonial policymaking, but also by the Western rise of 'administrative sciences,' in which governance was increasingly mirrored to the 'machine metaphor' of Taylorist production and industrial assembly lines.[180] If the *Plan Renkin* had remained a pipedream due to a shaky central 'scaffolding' and local challenges, colonial policymakers now believed that the installation of a mechanized administrative apparatus would allow to efficiently implement a *reseau hospitalier* in the near future, realize the allegedly philanthropic aims of the new Belgian colonial Ministry, and finally shed the stigma inherited from the Congo Free State period.

This administrative vision, however, was never implemented. Although the *Service des Travaux Publics* was effectively separated from that of the *Marine* in 1916, and the role of architects did become increasingly prominent and institutionalized, the first World War put a halt to Maertens and Renkin's bureaucratic reverie. The administrative 'scaffolding' necessary to efficiently realize large-scaled building programs would still not be assembled during the interbellum, even though it remained just as urgent as a new infrastructural plan would be launched in the 1920s. Rather than straightforwardly implementing government plans through an automated, top-down government apparatus, local colonial officials would continue to make do and improvise, as will become clear in the next two **large** scales. Nevertheless, even if never realized, the proposal of the *Mission Maertens* did mark the first tangible blueprint for a well-oiled *Service des Travaux Publics*: it outlined the Belgian administrative philosophy of an empirical colonialism, and especially the use of type-plans as flexible 'technologies of distance' would continue to play a major role during the implementation of colony-wide hospital construction programs, both during the interbellum and in the post-war period.[181]

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179. For a discussion of how 'Belgians commonly approached the colony as colony as empiricist, masterful, relentless engineers,' especially 'in relation to their energies in road, bridge, and clinic construction,' see Hunt (2016, p. 10). That Belgian officials indeed believed in 'la colonisation scientifique' – as Albert Thys, one of the prominent figures of early colonial Congo called it – has also been noticed by De Meulder (2000, p. 50).

180. For an extensive discussion of this topic, and the relation of administrative process with government architecture, see Van De Maele (2019, p. 100).

181. Chang (2016, p. 10).
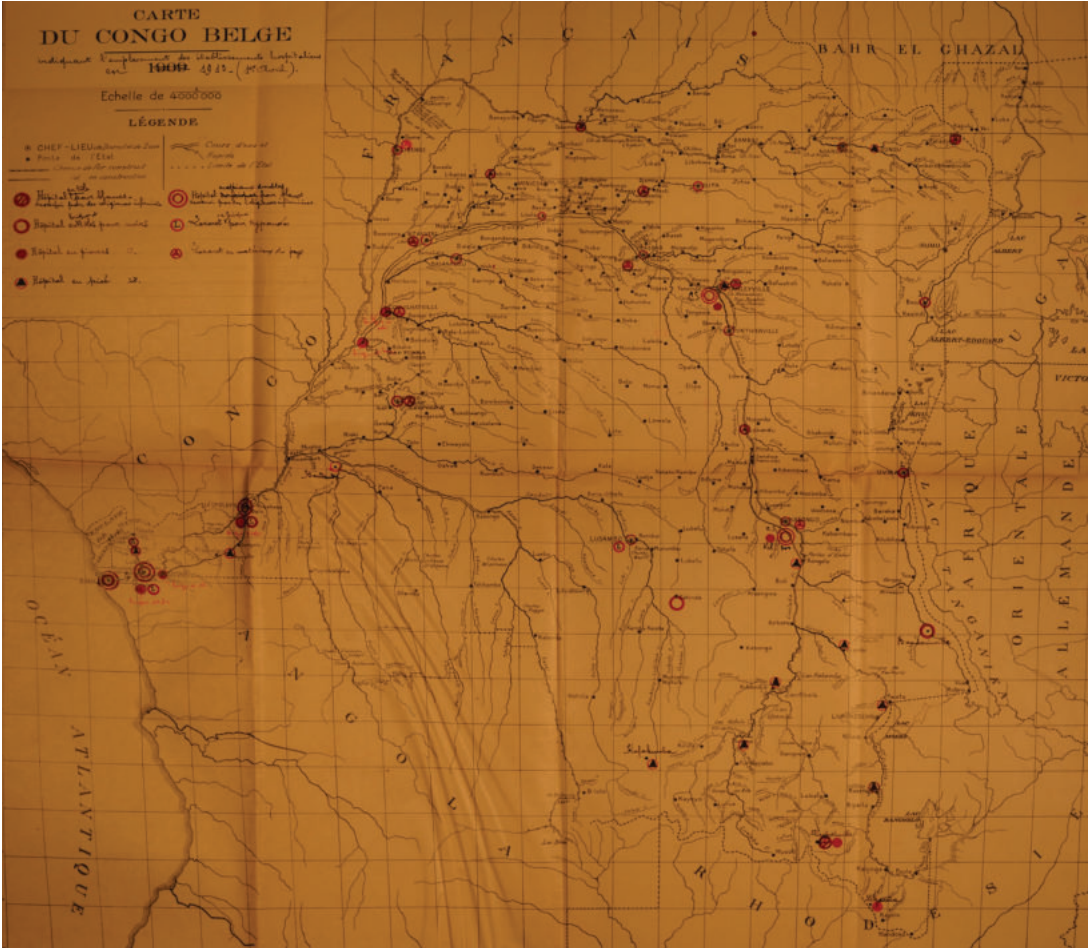
Image 23 . *Carte du Congo belge indiquant l'emplacement des établissements hospitaliers en 1913*

The map was presented at the World's Fair of Ghent in 1913, and aimed to display the booming network of healthcare infrastructure of the new Belgian colony to the audience. It particularly emphasized the materiality of these hospitals, noting which ones were made out of 'matériaux durables' and which were not. Yet as this chapter will argue, not only was colonial discourse on building materials much more ambiguous than this simple division line, the information on the *Carte* was also incorrect, presenting the new healthcare infrastructure as constructed with the latest Western building materials as much as possible, while in reality, colonial hospitals were more often than not built using 'matériaux indigènes' and African construction techniques.

AA/H 4390.

1/ARCHITECTURE
Materiality of the colonial *hôpital durable*

The map depicted here was part of the preparation of the international exhibition of 1913 organized in the Belgian city of Ghent. It not only boasted the steep rise in healthcare infrastructure after the Belgian annexation of the Congo Free State, but also celebrated the structural qualities of the constructions, explicitly emphasizing how the lion's share of the infrastructure was built with 'matériaux durables' such as 'tôles,' 'briques' or 'pierres.' Silent on the many problems of implementation the *Plan Renkin* was suffering from – as the *Mission Maertens* would reveal – the map was part of a larger attempt by the newly formed Belgian colonial government to shed the tainted stigma inherited from the Congo Free State. As 'imperial displays' *par excellence*, international exhibitions offered a crucial platform to do so and convince critical onlookers of the clean break Belgian Congo was making with the former red rubber regime.[182] Public healthcare formed a cornerstone in this discourse. As the *Carte* shows, by explicitly highlighting the constructive and material aspects of hospitals, the new colonial administration sought to convey an image of a benevolent colonial state erecting a network of modern healthcare infrastructure in accordance to the latest principles of hospital planning.

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182. Greenhalgh (1988, p. 52). See also Guldentops (2009, p. 85) on the colonial discourse of these early international exhibitions.

This emphasis on the material, technoscientific features of colonial hospital construction was part of a broader triumphalist colonial discourse that trumpeted the introduction of Western science and technologies into what was considered the "dark continent." At World Fairs, but also in popular periodicals such as *Le Mouvement Géographique*, colonial undertakings ranging from railway construction or agricultural experiments, to the implementation of the Western tropical medicine, were presented as pioneering scientific exploits that would shepherd Africa into modernity. The intricate relationship between colonialism, and science and technology, is increasingly being studied by a growing number of authors as part of the blossoming field of postcolonial 'science and technology studies.' One of the groundbreaking scholars that first highlighted this relationship was Daniel R. Headrick. In his seminal work *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*, he argued how Western sciences and technologies – with tropical medicine as a prime example – functioned as crucial inventions or 'tools of empire' that facilitated Western colonialism in Africa.[183] Doing so, his work and that of other early scholars working on the matter also aimed to lay bare the violent effects science and technology had had in the colonial world.

Yet by describing science and technology as the 'real triumph of European civilization' and as a potent, Western tool, these early publications implicitly affirmed rather than questioned the old colonial triumphalist discourse. By repeating the narrative that science and technologies originated in, and were diffused by, the West, these authors inevitably upheld the celebratory portrayal of technology as blessings bestowed by the West on societies considered "backward" or "primitive" at the time. More recently, some scholars such as David Arnold have started to criticize the way these publications reiterated 'diffusionist' views. They question the way histories of technology and colonialism are implicitly reduced to a mere 'process of (seemingly) unidirectional technology flows from Europe to the colonies' exclusively to serve Western dominance.[184] Instead, they propose to understand science and technology in the colonial world as 'a cultural space in which various forms of interaction and exchange, of mimesis and reversal, became historically possible.'[185]

Recent research on the use, meaning, and adaptation of building materials and techniques in and to the colonial context underpins this line of reasoning. Following anthropologist Arjun Appadurai's plea to turn 'our attention to the things themselves' and place 'commodities in [a] cultural perspective,' culturally nuanced histories of building materials or building techniques are increasingly

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183. In his work, Headrick (1981) places tropical medicine alongside technologies such as the steamboat, the telegraph cable, or modern arms as such tools facilitating colonial occupation. See also the contributions in Nandy (1990).

184. Arnold (2005, p. 92).

185. Arnold (2005, p. 87).

being written.[186] Taking an approach of 'cultural biographies,' various authors are describing the rich and multi-faceted 'social life' of materials such as cement or lime, or of local techniques such as well foundations or vaulting.[187] While acknowledging the violence that often went hand in hand with the use of such materials and techniques in a colonial context, these publications go beyond the view of science or technology as mere tools of Western dominance. Rather, they highlight multi-sited processes of exchange, 'emulation,' and the production of localized cultural meanings as equally vital layers in the colonial history of science and technology. Zooming in at building materials and techniques used in (early) colonial hospitals, this first chapter on ***architecture*** aims to contribute to this perspective, emphasizing how constructive features of hospital infrastructure were not just the result of Western technoscientific imposition, but also of exchange, even if such interactions were undoubtedly asymmetric.

As the *Carte* made clear above, the chapter's starting point is the contrast between colonial propaganda, boasting a growing healthcare network constructed with Western and thus 'durable' and hygienic building materials, and the on the ground materiality of colonial hospital infrastructure. That only Western materials were deemed sanitary or durable was a common theme across colonial publications. It was closely tied to the widespread belief amongst colonial powers that if there was even an autonomous African building tradition at all, this 'architecture nègre' was nothing but 'primitive' and characterized by 'un maximum de simplicité.'[188] Racialized beliefs of African 'primitiveness' and 'simplicity' ran as recurrent themes through many contemporary publications that dealt with construction and architecture in colonial Congo. This onus in colonial discourse on the two notions is striking, since both concepts are intimately linked and occupy a central place in architectural theory. As Adrian Forty notes, 'simplicity' 'must be one of the most overworked words in the architectural vocabulary.'[189] While it truly came to prominence during the emergence of the Modernist movement – perhaps epitomized by Van der Rohe's aphorism 'less is more' – the term emerged from the 18th century onwards, when it was contrasted to, and preferred over, its antipode of the superfluous. This was also the moment when origin stories of the 'primitive hut' developed, which were often mobilized as an argument for a 'simple,' non-superfluous architecture. Yet whereas the simplicity of the classical,

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186. Appadurai (2003, p. 5). This 'material turn' in architectural history is of course not limited to studies focused on the colonial context. See e.g. the various essays in Lloyd Thomas (2007).

187. See the work of e.g. Guedes (2018, p. 299) on the 'emulation' of local Indian building techniques such as well foundations or vaulting by the British. See also the work of Fivez (2018b, 2020) and Motylinska (2020) on the overlooked local dimensions of cement and lime in the colonial context. Cement as a building material has also caught the attention of scholars who focus on the current situation in (Sub-Saharan) Africa, see e.g. Archambault (2018).

188. See *Le Congo Illustré*, 2 (fasc. I), 1893, pp. 2-3 ; *Le Congo Illustré*, 2 (fasc. II), 1893, pp. 10-11 ; *La Belgique Coloniale*, 1, 1896, p. 7. Both references will be discussed in more detail below. As Johan Lagae (2002, p. 61) has shown, that Central Africa lacked a proper building culture was also the general belief in France.

189. Forty (2004, p. 249).

Western, 'primitive hut' was considered a 'positive quality' within architectural theory, when discussing allegedly 'simple,' 'non-durable' or 'unhygienic' African hut structures, it was considered a flaw reflecting the nature of their "primitive" African builders.[190]

Despite the fact that postcolonial literature has already widely raised questions about the condescending connotations of 'primitiveness,' the 'all-too-introvert discipline of architecture' has only recently started to 'write race back into architectural history' and explore the politically problematic nature of such terminology.'[191]As architectural historians Irene Cheng, Charles David II, and Mabel Wilson have shown, common conceptualizations of race have formed an understudied, yet incredibly important undercurrent of Western architectural theory from the 18th century onwards. During these heydays of imperialist encounter with, and oppression over the 'Other,' Western sciences such as anthropology and archaeology started producing 'racialized hierarchic classifications,' which were later reinforced by evolutionist views inspired by Darwinism.[192] Various peoples and cultures became ranked from 'primitive' – and thus 'stagnated' or 'timeless' – to 'civilized' – and thus capable of progress.[193] Architectural theory was complicit to, and shaped by, these views. Theorists increasingly coupled each 'race with its own distinct architecture' and arranged 'architectural forms into linear and developmental scales, from primitive to modern.'[194] If these racist views were explicit in the early modern architectural theories of the 18th and 19th century, they still lingered through in Modernist architecture, with its protagonists advocating utilitarianism and 'simplicity' by abolishing ornamentation – considered a frivolous, useless feat for which racially inferior cultures and peoples would have an alleged proclivity.[195]

Remarkably, the same emphasis on rationalist design and 'simplicity' also led to a contradictory fascination of Modernist architects for 'vernacular architecture' – a term etymologically rooted in the Latin *vernaculus*, or native, that conventionally

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190. French theoretician Laugier, for instance, stressed that 'it is by approaching the simplicity of this first model that fundamental mistakes are avoided and true perfection is achieved.' Laugier (1753, pp. 8-10) quoted in Forty (2004, p. 251).

191. Odgers, Samuel, and Sharr (2006, p. xviii).

192. Cheng, Davis II, and Wilson (2020, p. 5). Cheng (2020); Cheng et al. (2020, p. 5) have discussed, for instance, how the emergence of origin stories of the 'primitive hut' were already shaped by conceptualizations of racial hierarchy, which would influence famous later theorists such as Viollet-le-Duc. Similarly, Cairns (2006) has argued that the positive portrayals of the 'primitive hut' were always entangled with conceptualizations of backwards barbarism.

193. Cheng (2020, p. 146).

194. Cheng (2020, p. 137).

195. As Cheng (2020, pp. 150-152) has shown, Adolf Loos' views in his influential text on 'Ornament and Crime' are particularly telling in this regard, as are the views implicit in organicism, as Davis II (2019) discussed.

encompasses locally embedded, traditional 'architecture without architects.'[196] They believed it reflected '"timeless" architectural qualities' and 'rational responses to locally available materials, climate and requirements of use.'[197] Yet 'vernacular architecture' is, in itself, already a contentious term. Until as late as the 1980s often interchangeably used with 'primitive architecture,' it automatically entails a hierarchy 'between the primal and the cultivated, with no apparent awareness of its pejorative implications.'[198] As such, 'vernacular' building praxes have often been – and sometimes still are – implicitly been described as 'timeless,' 'primitive' and 'simple' architectural forms, which developed autonomously and remained untouched by global modernity.[199]

With these multiple discursive tensions throughout architectural theory and historiography in mind, it is particularly interesting to shift the attention to hospital infrastructure realized in the early colonial Congo, during which often demeaning discourses on the 'primitive,' the 'simple,' the African, or the 'vernacular' contrasted with an on the ground building praxis heavily reliant on local construction materials and techniques. To fully understand this contrast, the first section of this chapter unpacks the role of building materials in the field of hospital planning at the time. According to contemporary guidelines of hospital design, 'simple' building materials were considered vital. This was a matter of morality – architectural excess was considered inappropriate for a social public function – as well as one of hygiene. Not only was abundant ornamentation, which could easily gather dust and filth, seen as an impediment to the hospital's core function of a 'machine à guérir,' the use of hygienic, cleanable, building materials was also increasingly stressed. The emphasis on hygiene was even more urgent in tropical 'White man's grave' of Belgian Congo, and became closely related to material properties of durability. Western building materials and techniques were lauded for their alleged physical qualities of hygiene and durability, whereas local materials were generally scoffed aside as non-durable and thus unsanitary.

Although this material hierarchy was mainly articulated in colonial propaganda through seemingly objective physical properties, these allegedly scientific arguments often cloaked cultural and racialized prejudice about building materials. As explored in the second section, this disguise of racially biased views

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196. On the etymological roots of 'vernacular' architecture, see e.g. Bronner (2006, pp. 23-24); Crinson (2020, pp. 266-267); Oliver (1997, pp. xxi-xxii).
As was the name of the renowned exhibition on 'vernacular' architecture in the New York Museum of Modern Art organized in 1964 by architect Bernard Rudolfsky. On the impact of Rudolfsky and this exposition on the study of 'vernacular' architecture, see Özkan (2006, p. 99). On the difficulties of defining the 'vernacular,' see Oliver (1997, pp. xxi-xxiii).

197. Oliver (1997, p. 13).

198. Oliver (1997, p. xxi).

199. The very recent founding of the *Journal of Traditional Building, Architecture and Urbanism,* with its introductory editorial entitled 'Timeless Building, Architecture and Urbanism for the 21st century' and its plea for 'preservation,' is a telling example of how such rather uncritical gaze on the 'vernacular' lingers on to this date. See Hermida (2020, pp. 11, 12).

of materials and techniques served the agenda of the new Belgian Congo, perhaps more so for healthcare infrastructure than for any other building typology. International exhibitions, popular periodicals, and contemporary travelogues conjured the triumphant image of a philanthropic colonial power bringing the Western promethean gift of "modern" healthcare to a "backward" continent that lacked any native knowledge on (hospital) construction. Much like what historians Eric Hobsbawm and Terence Ranger have called the 'invention of tradition,' these claims of *absent* African (building) traditions buttressed colonial 'command and control' and created 'models of subservience.'[200] By casting Western building techniques as yet another 'boon bestowed by technologically advanced civilizations on societies considered backward,' the propagandistic portrayal of an absent Congolese building tradition simultaneously reinforced colonial racial hierarchies, supported the belief in scientific diffusion 'from the West to the Rest,' and further served to shed the stigma of the Congo Free State.[201]

Yet, as a final section will discuss, this portrayal of absent African building traditions and Western technological one-way 'diffusion' indeed seems *invention* rather than *fact*. Re-reading certain photographic archives, correspondence, and colonial publications 'against their grain,' I will try to highlight traces of African building know-how and agency within colonial hospital construction. This analysis suggests that hospital infrastructure was more often than not realized through a combination of Western and local building techniques and materials, despite the fact that the official discourse boasted the alleged 'durability' of Belgian Congo's growing healthcare network, and proclaimed the absence of a local building tradition.

A final disclaimer seems necessary for this chapter. It is based on a re-reading of a fragmentary set of sources, produced in biased conditions and often serving a clear colonial agenda. I sift through a variety of archival correspondence, internal reports, propagandistic publications, and colonial photography to surface scarce traces of African agency. Nevertheless, highlighting instances through which the 'subaltern' might be able 'to speak' – as Spivak has described it – remains a difficult balancing act.[202] As oral history on the matter was not available to me and I was relegated exclusively to archival sources, traces were often mere whispers, only to be made heard when evocatively amplified.[203] As a result, while focusing on such traces can unlock ways to reappraise the part played by colonized subjects in colonial hospital construction in particular, and in technoscientific histories in general, it also risks overestimation. I do not want to downplay the undeniable impact Western science had on these histories, nor do I want to discount the power

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200. Ranger (1996, p. 211).

201. Arnold (2005, p. 87)

202. Spivak (2006, p. 24).

203. Other researchers working on hut construction in Congo, such as Strother (2004), have nonetheless deployed oral history.

asymmetries Africans faced. My attempt to highlight moments of technoscientific exchange during the construction of (early) colonial healthcare infrastructure, does not imply that I underestimate the degree to which colonial medicine and hospital construction were effectively disciplines rooted in Western science, which has had its clear merits for hygienic hospital design. Certain building materials are undeniably more sanitary, durable and more suited for hospital construction than others, and it were predominantly scientific developments in 19th century Western hospital planning that paved the way for these insights. Neither do I disregard the degree to which colonial medicine was a form of effective and epistemological violence, and the result and catalyst of very asymmetric power relations which characterized the colonial context and which were undoubtedly at play at construction sites of colonial hospitals.

Building materials and (colonial) hospital planning

By the 1910s, materiality had become a central aspect of what was considered modern hospital architecture in the West. The most sweeping changes in hospital design in the 19th century had undoubtedly been of a typological nature – as discussed more thoroughly in 2/A, the pavilion typology emerged as the best practice to optimize ventilation and airflow in response to the miasma-theory. Nevertheless, the miasma theory also implied a constantly increasing emphasis on building materials and finishes in hospital design, even though it did not automatically prompt a clear answer to which materials were the most appropriate.

On the one hand, the theory had become popularized by figures such as the British nurse Florence Nightingale, who had noted that the wooden military barracks deployed during the Crimean war campaigns produced far superior recovery statistics than many of the stone hospitals in the homeland. The reason indicated by hospital specialists was not only that these wooden structures offered better air circulation. As architectural historian Jeanne Kisacky has explained, contemporary doctors and medical experts also feared 'that years of constant exposure to the aerial poisons emanating from sick patients would saturate the hospital's building materials.'[204] As a result, the ideal of a 'simple pavilion of indefinite existence' emerged.[205] Made out of non-durable materials such as wood, such wards could easily be burnt down after several years of miasma accumulation. On the other hand, the same anxieties that spurred on the practice of temporary and rather porous materials, simultaneously led to quite the opposite recommendation. Permanent and impermeable finishes such as ceramic, seamless tiling, glass, or hard-finished plaster also became popular, as hospital planners believed such non-porous materials would never become contaminated, and, as a result, would not have to be destroyed after extensive use.

It was this latter approach that slowly took the upper hand during the heydays of the miasma theory in the second half of the 19th century. Smooth, durable finishes were increasingly considered best practice, and were paired with adjusted hospital designs such as wards with rounded corners, ogival ward sections and the 'avoidance of moulding.'[206] This also meant that hospital planners increasingly 'looked on ornament as a dirt-trap, a hindrance to air flow, an unnecessary expense, and a moral pitfall for an institution that had to model restraint.'[207] These views quickly became commonplace in Belgian hospital planning practice

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204. Kisacky (2017, p. 52).

205. As Kisacky (2017, p. 52) quotes Dr. John Maynard Woodworth, the then first surgeon general of the United States.

206. As hospital architect Burdett (1893, p. 4) recommended in his renowned work on *Hospitals and Asylums of the World*. Similar views circulated in the Francophone world as well, with hospital experts such as Plucker (1880), Napias and Martin, or Cacheux – who will also be discussed under 2/A – also advocated such smooth, easily cleanable and impermeable finishes.

207. Kisacky (2017, p. 56).

as well. In 1849, the *Conseil Supérieur d'Hygiène* was founded, a state body that closely monitored everything related to public healthcare, including hospital construction. Following the most recent international developments in hospital planning, the organization recommended the use of an 'enduit imperméable' or 'matériaux incombustibles' for interior walls, as well the more general principle of an 'architecture simple, exempte d'ornements superflus.'[208]

By the end of the 19th century, an important shift in medical science occurred in which germs instead of miasma were identified as the source of contamination. This change only reinforced the onus on durable, non-porous materials and on simple hospital design without ornament. While ventilation still remained a crucial factor of what was considered hygienic hospital architecture, the emphasis in hospital manuals and guidelines shifted away from typological solutions that maximized airflow, towards the proper use of building materials. As architectural historians such as Jeanne Kisacky or Cor Wagenaar have shown, the increasing understanding and importance of surgery within medical science was a vital catalyst in this shift: 'operating room designers of the late nineteenth century had to eliminate any germs within the operating space and then prevent the further admission of any other germs.'[209] Successful first tests in operation rooms with finishes that were easy to disinfect such as hard plaster or mosaic tiles quickly spilled over to hospital spaces outside the surgical suite. At the same time, new scientific experiments were being done on the impermeability of particular building materials, which 'prompted drastic reappraisals of materials appropriate for hospital use.'[210] Especially wood and unglazed bricks fell off their pedestal of hygienic finishes and were increasingly banished from hospital construction.

These views were not only spread through guidelines or published manuals, but also through the emergence of international healthcare bodies and networks. One particularly influential institution was the *Office International d'Hygiène Publique*. Founded in 1908, the core task of this Paris-based institution was the rapid exchange of epidemiological data between its member states, in order to quickly coordinate quarantines and preventative measures in case of an epidemic outbreak. At the same time, the organization published an annual bulletin which provided not only extensive coverage of the latest medical research, but also occasional guidelines and discussions concerning hospital construction. While these were mainly focused on the typological aspects of hospital planning – as explained in 2/A, the *Office* played an important role in the institutionalization of the pavilion typology as best practice – attention was also given to which

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208. *Moniteur Belge*, 1884, pp. 675, 677. The *Conseil* also spread these views through architectural journals such as *L'Emulation*, 6, 1899, pp. 82-86.
209. Kisacky (2017, p. 139); Mens and Wagenaar (2011). See also Adams and Schlich (2006); Schlich (2007).
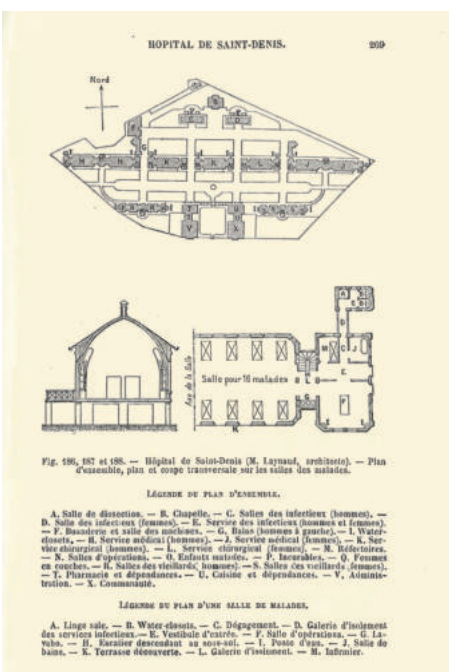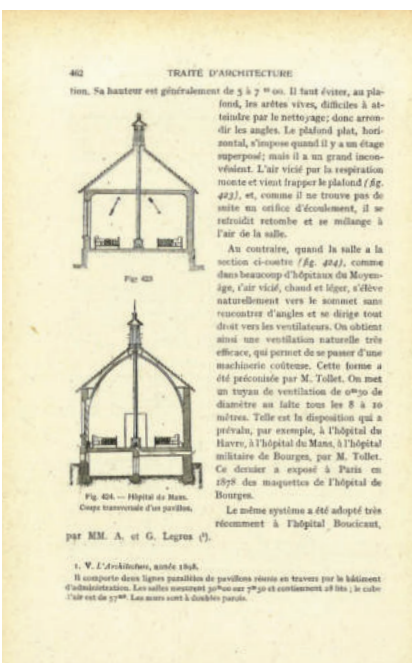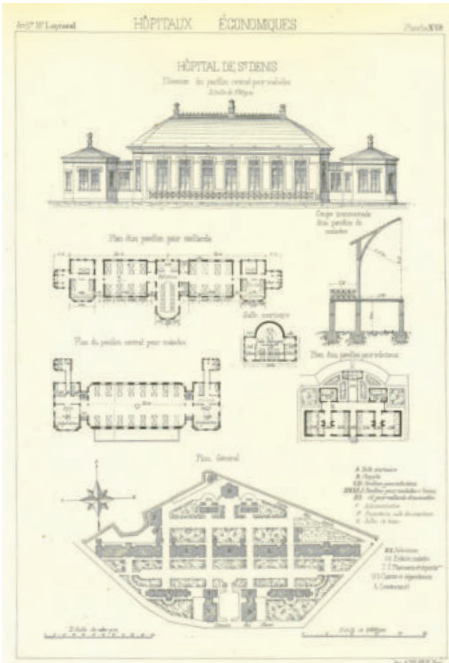210. Kisacky (2017, p. 121).

Image 24 . Hospital design optimized for disinfection

The French *Hôpital Saint Denis* or *Hôpital de Mans* were but two of the many hospitals that were materialized according to the best practice of the so-called *Système Tollet,* named after its designer, the French engineer Casimir Tollet. As many of his fellow hospital planners, he proposed the use of rounded corners. His pavilion section, however, went further than other designs. By combining smooth and impermeable finishes with an ogival shape and doubled walls, his design not only responded to the waning miasma-theory by optimizing airflow, but also to the emerging germ-theory, by allowing easy disinfection of both the visible surfaces of the walls, and the insides through steam. As explained more extensively in 2/A, these guidelines on hospital design and building materials circulated widely, both in and beyond Belgium.

AL: Cacheux, *L'économiste Pratique*, 1885.
AR: Cloquet, *Traité d'architecture* 1900.
BL: Brouardel, *L'hygiène en France,* 1883.

building materials were appropriate for "modern" hospital design.[211] With a wide range of member states such as Great-Britain, France, Portugal, Spain, Belgium, Germany and the United States under the wings of the *Office*, these building recommendations quickly spread across the globe and across linguistic barriers.

If by the 1910s, best practices in Western hospital planning had become just as much about simple, impermeable finishes as about typological design, the onus on building materials was even greater in the context of Belgian Congo, where it went hand in hand with the evolutionist belief that the "primitive" Congolese peoples lacked a local building tradition, and thus lacked local know-how on how to deploy hygienic building materials. Although specialized guidelines on how to design colonial hospitals did not circulate in Belgium at the time, broader discussions on how to construct in the new Belgian colony nevertheless quickly emerged, both before and in the wake of the new infrastructural construction program of the *Plan Renkin*. The question of which building materials were hygienic enough for a context that was feared as 'the White man's grave,' was at the heart of these debates. As explored in the next section, building materials in Belgian Congo were quickly categorized and ranked, and although often cloaked in terms of physical properties of hygiene or durability, this classification just as much rooted in racial prejudice and evolutionist beliefs.

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211. Discussions in the Annual Bulletin on best practices of hospital construction in Nice, for example, minutely described the building materials used in the hospital: 'Les murs et plafonds des salles et chambres de malades sont recouverts d'une peinture lavable, sauf à leur partie inférieure qui est garnie sur une hauteur de 2 mètres de carreaux émaillés. Le pavage du sol est en gros cérame. Tous les angles sont arrondis suivant une courbe de 15 centimètres de rayon.' See *Hygiène Hospitalière : Projet pour un nouvel hôpital à Nice*, 1909, p. 963-977. For other discussions on hospitals in the Annual Bulletin, see e.g. : *Notes sur quelques hôpitaux modernes*, 1910, p. 1450-1488 ; *Les hôpitaux d'isolement en Angleterre*, 1912, p. 2200.

Image 25 . Alleged evolutionist stages of building materials

Une cité établie à Bololo (Tshuapa) pour les travailleurs d'une plantation de café. On y voit réunis les trois stades classiques par où passent successivement ces cités: à gauche, les huttes construites par les travailleurs sur le modèle traditionnel de leur tribu; au centre, des cases plus régulières et plus spacieuses, en pisé; à droite: les maisonnettes définitives en matériaux durables.

ca. 1950. MRAC, C. Lamote (Inforcongo), HP.1957.2.108.

The invented absence of an 'Architecture Nègre'

Paired with its caption, Image 25 in one glance epitomizes this widespread evolutionist classification of built forms in colonial Congo. From plaited walls, over wattle-and-daub or 'en pisé,' to durable bricks, the image captures three allegedly evolutionary stages of construction knowledge in a single overview. Interestingly, it echoes architectural historian Mari Hvattum's observation that origin stories within architectural theory of the 'primitive hut' and the 'story of the three pigs' bear a surprisingly similar moral: 'permanence pays off; only with the arrival of the enduring and the monumental, can pigs – and architecture – rest safely.'[212] By ranking these building methods from "primitive" to "civilized," however, the propagandistic picture adds a clear Darwinist undertone to the age-old tale of the three pigs. Looming behind this hierarchy of building materials lay of course racialized and 'evolutionist' prejudice from the West on how 'les Noirs n'auraient pas de civilisation propre.'[213] Western evolutionist beliefs ranked peoples across the world based on their alleged "degree of civilization," and African peoples were often placed on the lowest caste of this global hierarchy.

The discourse on construction and architecture in (early) Belgian Congo equally reflected such evolutionist views. Often contrasted with other colonial regions, the scarce contemporary architectural publications on the colony dismissed autonomous Congolese building cultures and know-how as practically inexistent.[214] When the Belgian architectural scene did turn its gaze towards Belgian Congo, it automatically assumed there was little to learn from local building techniques or the traditional use of building materials. Instead, it mainly focused on stylistic questions, in search of sources of inspiration to develop an appropriate 'architecture colonial within this exceptionally "backward" region:'[215]

> *Quel type architectural adopter pour faire beau ou simplement joli, dans ce pays neuf ou n'existe aucun style indigène à améliorer, à approprier, ainsi qu'on l'a fait dans l'Hindoustan, dans les pays arabes, même au Soudan occidental dont nous avons vu un tata monumental à la dernière Exposition de Bruxelles.*

If the architectural debate devoted little attention to building materials and techniques, these issues were not at all absent from colonial discourse. Published after the Second World War, the image depicting the three evolutionist stages of building techniques was but one, and a rather late example of the wide array of colonial propaganda that deployed materiality as proof of the absence of a

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212. See the discussion on the origins of the 'primitive hut' by Mari Hvattum (2006, p. 33). Similarly, Strother (2004, p. 272) highlights the reluctance of conventional architectural histories to study 'impernance.'

213. Johan Lagae (2002, p. 61).

214. Where grand structures were observed in Sub-Saharan Africa, these were almost always reframed in architectural and archeological historiography as the result of an external – often Western – influence. See e.g. Pwiti(1997) on the ruins of Great Zimbabwe for a telling example.

215. Article from A. De Hertogh in *Tekhné*, 1, 1911, p. 10-11, quoted in Lagae (2002, p. 61), who provides a more thorough overview of the architectural debates on 'l'architecture coloniale' in Belgian Congo.

Congolese building tradition. Perhaps the earliest and certainly one of the most explicit texts that formulated this idea was a short article on 'L'Habitation Européenne,' published in *Le Congo Illustré*, a propagandistic magazine that was later fused with *Le Mouvement Géographique*.[216] In a celebratory tone, the piece describes the various steps the European colonizer should undertake when settling in Congo and setting up residence. After a tent for the first nights, he would erect a temporary 'maison en torchis,' deploying his hands-on wits and making ingenious use of the limited local materials available to him:[217]

> *Quand, par chance l'industrieux blanc a découvert dans les environs une pierre calcaire quelconque, il la fait broyer et cuire, et peut ainsi enduire son « hôtel » d'une peinture à la chaux [...] Quand on ne possède pas de clous, on les remplace par des liens en écorce d'arbre et en fibres de palmier. Aux charnières et aux verrous, on supplie par un système primitif de gonds et de loquets en bois.*

According to the article, Africans from far and wide would come to admire this European 'palace,' finally understanding the constructive possibilities of the natural resources they had been surrounded by for centuries:[218]

> *Les natifs viennent de partout, de fort loin souvent, admirer ce palais grandiose qui leur arrache de naïves exclamations de surprise. Plus tard, aidés des conseils du blanc, ils imitent sa manière et déjà on voit, auteur des stations européennes, des maisonnettes en torchis se bâtir nombreuses, remplaçant l'odieux et puant chimbeck des natifs.*

The piece not only scoffed aside existing local building traditions as repugnant and fetid, it also provided an origin story of how improved construction materials or methods such as wattle-and-daub, lime, or the use of bark strings as replacements for metal hinges and joints only arrived in Congo thanks to the ingenuity of European pioneers. Other publications similarly re-appropriated construction methods as European introductions to an allegedly backward region. A photographic report on 'Habitations indigènes: primitives & améliorées' from 1903-1904 explicitly outlines how building know-how served as a means to both measure and improve the degree of civilization of a people:[219]

> *Les constructions d'un même pays n'en ont pas moins des traits communs permettant d'apprécier l'état social, le degré de civilisation, les usages, l'avancement des connaissances et les ressources de la population. D'un autre côté, une habitation bien comprise est un moyen d'embellir l'existence du noir et de le fixer au sol par l'agrément d'un logis sain et hygiénique. On développera ainsi en lui des habitudes d'ordre et de régularité. [...] Améliorer l'habitation du noir c'est donc provoquer, par voie de conséquence, son perfectionnement moral.*

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216. On *Le Congo Illustré* and *Le Mouvement Géographique*, see Henry (2008).
217. *Le Congo Illustré*, 2, fasc. 23., 5 November, 1893, p. 178
218. *Le Congo Illustré*, 2, fasc. 23., 5 November, 1893, p. 178.
219. Thys van den Audenaerde (1989, p. 43).

Image 26 . 'Habitations indigènes: primitives & améliorées'

The report on Congolese housing, of which the front page is depicted here, was one of the several chapters on a series of facsimiles on the 'Etat Indépendant du Congo: Documents sur le pays et les habitants' published in 1903 and 1904 by the Colonial Museum of Tervuren. With its celebratory tone, it was clearly part of the broader propagandistic campaign King Léopold II had launched against the increasing international critiques on his regime. The evolutionist and diffusionist beliefs on building materials and techniques this particular chapter developed, only further supported this propagandistic purpose.

The facsimiles were later republished, see: Thys van den Audenaerde (1989, p. 43).

The further images and explanation in the report shed no doubt on that it was the Belgian colonizer who would instruct these improved building methods to the Congolese. On the one hand, several architectural features were presented as European improvements that finally tutored *les indigènes* on how to adapt spaces to the tropical environment. Next to overhanging roofs, raised floors as protection against vermin, or heightened interiors, especially the description of verandas is revealing:

> *La présence de l'Européen et l'exemple de ses procédés de construction font cependant déjà sentir leur influence. Çà et là on remarque en effet quelques petites vérandas dont le toit est formé de deux pans inclinés, soutenus par quatre perches. Elles sont ouvertes de tous côtés et les indigènes aiment à s'y abriter contre la grande chaleur du jour.*

On the other, building materials and techniques were repeatedly recast in an evolutionist ranking, from woven wall construction as the "native" and "primitive" way of hut construction, over wattle-and-daub – termed 'en torchis' or, 'en pisé' – to eventually hygienic and durable European bricks. The in-between position of wattle-and-daub as a transitional building method – a European innovation that was nevertheless simple enough for Congolese to understand and apply – is striking. Such epistemic appropriation of course served the colonial agenda, by reaffirming the narrative of the "primitive" Congolese receiving benevolent scientific tutelage from the West. Constructions 'en pisé' across the colonial territory were presented as African imitations – often by local leaders or nobility – of European knowledge.

Nevertheless, the technique was likely already present in precolonial Congo. Indeed, re-reading a wide array of early colonial sources surfaces a number of contradictions and ambiguities that are at odds with this dominant discourse of European technoscientific 'diffusion,' revealing how the absence of an African building tradition was indeed rather invention than fact. While mentioned often implicitly, several publications suggest how not only architectural features such as verandas, raised floors or overhanging roofs, but also the transitional building method of 'en pisé' had already been part of a Congolese building praxis in some form or another.[220]

Sometimes leads were found in publications that only tangentially dealt with colonial construction: an article on pest control of the 'ver blanc,' for instance, suggests that Congolese were well aware of the fact that vermin such as 'les verres n'étaient pas aussi nombreux là où l'on dormait sur des lits ou sur des plans élevés au-dessus du sol.'[221] Medical courses given to aspiring colonial doctors at the *Institut de Médecine Tropicale* contained similar clues. The use of hygienic building materials, and especially the contrast between 'constructions en briques'

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220. As Hallock (2004) shows, the technique of 'en pisé' was also practiced in early colonial America, where it, possibly, had also undergone influence from building expertise of slaves from West-Africa.

221. *Le Mouvement Géographique*, 1905, p. 215.

Image 27 . *Construction d'une maison en pisé*

The image clearly depicts how an 'en pisé' construction and straw roofing was technically realized at the time. A wooden framework was built, to which, in a later building phase, mud, clay, or sod was added. The roofing was prepared by weaving together leaves and attaching these to the structural beams in advance before heaving the timber onto the structure.

Nevertheless, the image also provides an important opportunity to zoom in on additional narratives of construction praxis in early colonial Congo - historiographical opportunities that are, as explained in the next section, intimately linked with the ambiguities of photography as source and medium. Perhaps what is most striking in the image is not what is *present*, but instead the *absence* of a European overseer, suggesting that the African laborers were skilled in building 'en pisé.' Still, despite a European presence, the colonial state remains visible: the African workers were clearly convicts performing a labor punishment enforced by the state.

Unknown date, MRAC, E. Steppé, A.P.0.1.1239.

and 'en pisé,' was extensively discussed in these syllabi. It is remarkable to see how sources that focused on the unhygienic nature of 'en pisé,' rather than on the triumphant Belgian diffusion of this building technique, quickly re-demoted the European 'en pisé' to 'constructions du type indigène.'[222] That building 'en pisé' was not an unknown building method in Congo also becomes clear when re-reading often rather propagandistic travel reports such as the one from Marquis Roger de Chateleux.[223] During his year-long trip around the colony in 1923, he noted how 'potopot' – likely a form of rammed earth – and 'pisé' had already been in use for Congolese dwellings, but also for other types of buildings such as commemorative shrines.[224]

At other times, traces were hidden in the margins of issues that did directly deal with tropical building, often contradicting their own main argument of absent African building traditions. One of the most notable examples is undoubtedly a piece on 'L'Architecture Nègre,' published in 1891 in *Le Congo Illustré*. As many articles of this periodical, the piece was mainly written to cater to the taste of its Belgian readers for exotic escapism. In line with the widespread evolutionist thinking at the time, the article set out to offer a glance not only into a remote tropical world, but also into a distant atavistic past, confirming the "primitive" nature and building methods of colonial subjects to the periodical's "civilized" Western audience. While this title must have seemed anxiously oxymoronic to its Belgian readership, the article's introduction quickly reassured its readers that if an 'architecture nègre' existed, it remained 'peu compliquée.' Nevertheless, although most types of native huts discussed in the piece were described as simple '"chimbecks" rabaissés,' some Congolese constructions received praise beyond this prototypical portrayal, and were lauded for their 'preuve d'imagination, de goût et de notions de l'art de l'ingénieur.' The article especially commended the hut constructions of the Azande and Mombuttu people as a clear sign of their noticeable building know-how:[225]

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222. See ITM/4.1.2., Syllabi of *Hygiène tropical*, *Hygiène et physiologie* and *Hygiène coloniale et prophylaxie*, multiple years.

223. He published under the pseudonym of Chalux. That his travelogue was indeed rather propagandistic, and that he explicitly mobilized architecture and building materials to support this case, has been shown by Fivez (2020, p. 78), who analyzed the contrast Chalux (1925, p. 95) painted between colonial cement factories and African huts.

224. Chalux (1925, p. 50; 96; 275) had encountered these shrines in the surroundings of Tshela, and had also explicitly noted the use of 'potopot' in his descriptions of the cement factory of Lukala and Sankuru. While the term 'potopot' was widespread in colonial publications and was used as a description for mud or daub constructions, I have not found a precise definition of the building material or technique. In his contribution entitled 'Vers une architecture rationelle congolaise' to the periodical *Le Matériel Colonial*, however, architect François Désiré noted how Congolese inhabitants were in awe of reinforced concrete, precisely because it served as 'potopote avec des fers.' *Le Matériel Colonial*, 10, 1934, p. 223, quoted in Fivez (Forthcoming).

225. Commonly referred to nowadays as the Mangbetu people. *Le Congo Illustré*, 2 (fasc. II), 1893, pp. 10.

Chez les Mombuttus, l'architecture est poussé à un certain degré de perfectionnement qui n'est égalé nulle part ailleurs dans l'Afrique centrale. C'est surtout dans l'art de construire que se révèlent tout entières la science et l'habilité des Mombuttus. On y élève de véritables palais pour le prince, à côté d'immenses halles servant pour les réceptions et les assemblées publiques. Celles-ci ont jusqu'à 50 mètres de long, 20 mètres de large et 16 mètres de haut. [...] Les bâtiments des Mombuttus possèdent un pignon, comme ceux de nos contrées.

Despite the article's main argument, its choice of words – engineering, science, art of construction – is remarkable, drawing from a scientific lexicon that was generally reserved for Western building praxis. Its terminology made the piece the most explicit example of how Congolese building expertise existed and was already implicitly acknowledged at the time by colonial authors. Nevertheless, the text remains rather silent on local know-how about materiality and building techniques.

Other texts shed more light on this issue. Some first clues were found in the margins of the already discussed text on 'Habitations indigènes: primitives & améliorées,' despite its clearly evolutionist point of view. The piece contained an extensive explanation of traditional roof construction, which aimed to underline the primitive simplicity of 'anciens chimbecks.' Nevertheless, the publication does hint at the existence of a Congolese precolonial construction industry and at existing local building techniques:[226]

Les toitures sont les parties les plus difficiles a construire. L'indigène cultive, à cet effet, dans toute l'Afrique équatoriale, des herbacées a feuilles larges, destinées spécialement à la confection des toitures. II les lie en petites bottes qu'il dispose sur la carcasse du toit en les juxtaposant les unes aux autres de façon que les tiges soient seules apparentes et couvrent successivement les parties plates. Les eaux pluviales ne peuvent, ainsi, endommager le système de couverture.

As the text described, such roofing was not only executed according to a refined building technique using 'lattes légères, solidement attachées à la carcasse du toit au moyen de lianes' to prevent 'herbes du toit de se soulever pendant les orages. In some regions of Congo, its 'chapiteau de paille' or 'kifulu (chapeau)' had also developed into a particular architectural element of hut construction. These distinctive techniques and decorative features will reappear below, when analyzing contemporary photographs of colonial hospital infrastructure.[227] Other, more practical publications on 'L'Habitation du noir' and 'Comment le blanc se loge en Afrique,' give even more insight in the building practices in early colonial Congo. The latter was written as a hands-on manual for Europeans on how to construct accommodation in the tropics. Its general gist was clearly part of the broader evolutionist take on absent building traditions in Congo, with

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226. Thys van den Audenaerde (1989, p. 45).
227. Thys van den Audenaerde (1989, p. 47; 48). In his *Encyclopedia of Vernacular Architecture*, Paul Oliver (1997, pp. 508-511) devotes a specialized section on the ornamentation and pole construction of the Mangbetu.

Image 28 . Local building technique of roofing

Despite its propagandistic, evolutionist message, the photographic report on 'habitations indigènes' nevertheless contains some clues of local building techniques. One of these is the use of horizontal battens as a way to attach straw roofing to the underlying wooden framework.

Thys van den Audenaerde (1989, p. 46).

repeated emphasis on how the industrious and educated *colon* would have to introduce his "ignorant" African laborers to new and more-advanced building methods. Nevertheless, as the article describes the construction of various types of accommodation, one cannot help but imagine that Africans must have had some agency during their building process, and that the resulting infrastructures were not the mere result of European imposition, but also of exchange of Congolese expertise. The anonymous author recommended to consult 'les indigènes' for their use of 'd'excellents liens en fibres de rotins que les hommes fixeront adroitement.' Similarly, the piece suggested that Congolese possessed considerable knowledge on building 'en pisé,' in particular concerning the choice for the appropriate types of wood to use for the framing.[228] The second article, 'L'Habitation du Noir,' confirmed this even more explicitly. Again, it clearly followed the general premise of an absent Congolese building tradition. It not only stressed how 'le nègre' only knew 'certains modèles de logements très simples,' it also claimed that without European help and due to the alleged African 'paresse,' Congolese construction would 'reste immuable': 'Telle qu'on la construisait jadis, on la construit aujourd'hui et on la construira longtemps encore.'[229] Nevertheless, in a subssection focused on 'La hutte en pisé,' the article acknowledged that this building technique was already widely deployed for hut construction in both northern Congo and Katanga, and was in use for granaries in other parts of the colony as well.

228. *La Belgique Coloniale*, 1, 1896, p. 7.
229. *La Belgique Coloniale*, 5, 1896, p. 52.

La hutte circulaire.

Les huttes circulaires se composent le plus souvent d'un mur, parfois en pisé, sur lequel est placé, comme un immense éteignoir,

Type de hutte circulaire. — Chimbèque a-sandé.

une toiture conique. Elles sont plus primitives que les huttes rectangulaires ; exception doit pourtant être faite pour certaines d'entre elles, telles que les huttes a-sandés qui sont parfois de vraies œuvres d'art.

L'intérieur de ces huttes est celui de toutes les huttes nègres :
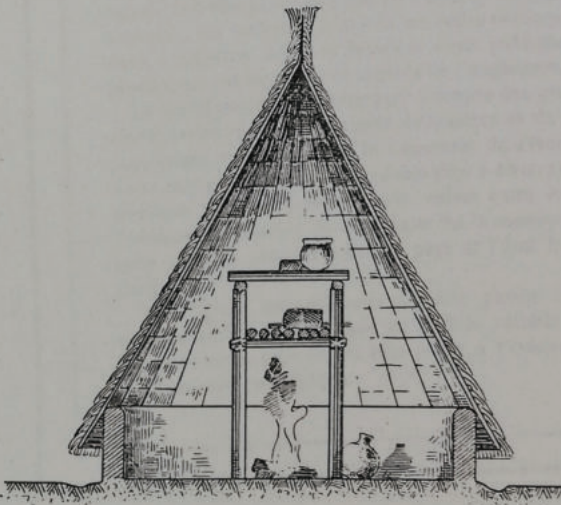
Intérieur d'une hutte du haut Ubangi.

sombre, enfumé, incommode, mais on est très heureux de les rencontrer si l'on n'a pas d'autre abri ; on y est remarquablement garanti des intempéries.

Image 29 . Rounded 'en pisé' huts

Despite its evolutionist discourse, the article on 'L'Habitation du noir' published in *La Belgique coloniale* did note how wattle-and-daub was a known building technique among various Congolese populations, even before the arrival of European colonizers.
Moreover, although the text did not explicitly mention this, the drawings of the article also clearly acknowledged the use of decorative *chapiteaux* to crown of these rounded huts.

La Belgique Coloniale, 5, 1896, p. 55.

If most of these publications date from the turn of the century, the contradictions and ambiguities on building techniques and materials – and especially on constructing 'en pisé' – resurface in later discussions as well. When the new administration of Belgian Congo outlined the ambitious construction program of the *Plan Renkin*, a growing body of literature emerged that dealt with colonial construction from an explicitly technical perspective. While most of these publications still labelled 'en pisé' as a Western introduction, the technique was at the same time advised against, because it was considered neither hygienic nor durable. With Belgian Congo still considered a 'White man's grave' at the time, colonial doctors were at the center of these emerging technical debates, and the latest hospital planning demands of materials as non-porous, hygienic and durable quickly made way to these discussions. The *Guide pratique hygiénique et médical du voyageur au Congo* of the famous Belgian colonial doctor Dryepondt, for instance, contained a lengthy chapter on 'L'habitation,' in which he concluded that the choice of 'durable' building materials was crucial to ensure a hygienic environment in the tropics.

Other professions equally contributed to the debate. In 1910, the *Association pour le Perfectionnement du Matériel Colonial* was founded. The organization, which brought together not only doctors, but also military personnel, industrials, colonial policymakers and engineers, issued a monthly periodical called *Le Matériel Colonial*. The magazine extensively addressed the question of what exactly constituted appropriate and hygienic building materials for the colony, and the multiple articles that dealt with the matter came to the same conclusion as Dr. Dryepondt. While 'durable' materials such as iron, and especially stone and brick, were identified as climatically suitable and hygienic enough for use in the colony, 'matériaux non-durables' were considered to be unsanitary.[230] The definition of both categories, however, varied widely, and was often based on the geographic and "racial" origins of the materials, rather than on the actual physical properties of hygiene of durability. On the one hand, Western building materials, which included brick, cement, and iron, were idealized – even though most colonial policymakers agreed that their import was in reality too costly and practically unfeasible in the long term.[231] 'Matériaux indigènes,' on the other hand, were unanimously dismissed due to their alleged 'durée très limitée.' That

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230. See e.g. the contribution of engineers Ihro (1914, p. 555) and Habig (1912a, 1912b) to the periodical. *Le Matériel Colonial* was issued by the *Association pour le Perfectionnement du Matériel Colonial*, an association that joined doctors, engineers, military personnel, industrials and colonial policymakers to study a wide array of technical matters related to the colonial endeavor. See Lagae (2002, p. 35) for a more thorough discussion of the association and the debate on *l'habitation coloniale* that was held amongst its ranks in the 1910s.

231. With the *Plan Renkin* under way in the 1910s, an important question amongst officials thus became which local material was nevertheless hygienic and durable enough to realize this vast construction program. As Robby Fivez (2020, p. 80; Forthcoming) has argued, cement emerged as the most straightforward solution. On the one hand, 'although all its constituents were local, it nevertheless had an extremely modern allure: concrete.' On the other, and more importantly for the history of healthcare infrastructure in Congo, its assemblage was 'considered simple enough, even for African labor.'

materials such as local wood may have been as sanitary and long-lasting as some of the Western materials classified as 'durable,' or that the thermal capacity of iron often led to much less comfortable – and thus deemed less hygienic for Europeans – interiors than some 'materiaux indigènes,' was quickly scoffed aside.[232]

What is even more striking, however, is that the category of native materials not only included straw, banana leaves for roofing, or local tropical woods – all materials that were generally acknowledged as 'indigène' – but also 'pisé.' Building materials thus produced multiple contradictions and ambiguities within colonial propaganda: not only was their classification shrouded in objective terms of hygiene or durability, yet just as much defined by racial prejudice, colonial publications also simultaneously claimed and dismissed building know-how such as the technique of 'en pisé' as both a triumphant Western 'diffusion' and an unsanitary and non-durable primitive 'matérial indigène.' These discrepancies continued to exist until the end of colonialism, and existed not only in colonial texts, but also in colonial photography. As explored in the next section through a re-reading of colonial photographs, this also shaped the way colonial hospital infrastructure was depicted. Colonial propaganda such as the *Carte* presented at the Ghent's World Fair of 1913 aimed to herald colonial hospital infrastructure as a "modern" Belgian promethean gift and shed the stigma of the Congo Free State. In order to convincingly do so, however, it effectively downplayed the degree to which colonial hospital infrastructure was being realized with local building techniques and materials considered unhygienic.

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232. See also 1/M for a discussion on the blurred lines between comfort and medical care.

Image 30

Image 31

Image 32

As the addenda - and especially the use of local terminology - of the three images reveal, the technique of 'en pisé' not only produced ambiguities in early colonial discourse, but also in post-war propagandistic photography.

Image 30:
A l'occasion du 1er anniversaire de l'arrivée du Roi Baudouin au Congo, des chèques émis par le "Fonds du Roi" ont été remis à de nombreux Congolais pour les aider à bâtir leur maison. A Masi-Manimba (Kwango), la cérémonie eut lieu au village-pilote de Mbanza Mambungu, construit par une organisation coopérative dont plusieurs membres bénéficient de l'aide du Fonds. Mr Halain, Commissaire Général du Fonds du Roi, Mr Algrain, membre du Conseil Supérieur du Fonds, et Mr Paquet, Commissaire provincial, étaient venus de Léopoldville en avion pour y assister. Une famille congolaise devant sa maison en pisé. <u>Ce mode de construction représente: un premier progrès sur les cases traditionnelles en torchis.</u>
1956, MRAC, J. Makula (Inforcongo), HP.1956.22.375.

Image 31:
Au nord de Luozi, entre le fleuve Congo et les premières forêts du Mayumbe, s'étend le pays des Manianga parmi de hautes collines sillonnées de vallées fertiles. Voici un aspect d'un village de cette région, Biongo, qui étage ses huttes au long d'une crête montagneuse. <u>On y remarque le type de l'architecture primitive: murs de pisé que retient un lattis</u>, toits de feuilles et d'herbes que de longues branches protègent contre les rafales de vents violents. La vie est très simple dans ces hameaux lointains.
CongoPresse, 1946, MRAC, A. Da Cruz (Inforcongo), EP.0.0.5.

Image 32:
Voice les matériaux nécessaires pour construire une case en pisé: perches dont on fera des poutres ("mitondo"), des piliers ("makondji") et la charpente du toit ("maleka") et qu'on attachera ensemble à l'aide de laines ("kekere") – paille ("esobe") qui couvrira la toiture – et beaucoup de terra battue.
CongoPresse, 1947, MRAC, A. Da Cruz (Inforcongo), EP.0.0.459.

 Emphasis added.

Concealed materialities of (early) colonial hospitals

The discrepancies within colonial propaganda on building materials open up possibilities to shed a new, yet limited light on the 'invention' of an absent African building culture. When held against this light, colonial photography – the medium this section mainly focuses on – offers an important prism to gain a similarly alternative perspective on the use of building materials in early colonial hospitals, and how their construction produced sites of technoscientific exchange rather than imposition. Of course, all of the consulted images were the result of a propagandistic government effort or part of the colonial archive, and should thus be treated with care. Many of these pictures were produced in biased conditions and for 'performative' purposes. [233] As theorist of photography Ariella Azoulay explains in her latest book, the closing and opening of a camera's 'shutter' is by definition violent and divisive in a colonial context: it not only literally separates state officials who control the apparatus from colonial subjects whose image is often forcefully extracted, but it also furthers colonial hierarchies by supporting imperialist agendas through portrayal and reproduction in colonial propaganda. 'Unlearning photography' by 'decoding' and stripping off its biased layers in a colonial context, however, is not an easy task.[234] More often than not, these images were loose finds, void of explicatory captions, date, name of the photographer, or other additional metadata that could give clues about the circumstances or aims in or for which they had been taken.

This, however, doesn't necessarily mean colonial images are by definition useless archival documents. On the one hand, we must be explicit in colonial photograph's absent information on its biased conditions of production. As explained in the introduction, the captions in this PhD always include the full metadata that was included in the archive. On the other, even such scarce or metadata does not mean we cannot creatively re-read these images. As others working on Belgian Congo have already shown, the medium's 'ambiguity as source of historical knowledge' offers opportunities for reinterpretation.[235] As visual historian Christraud M. Geary argued, photography provides unique openings to 'read against the grain,' 'imbuing images with meanings other than those intended by the photographers and publishers and created by viewers at the time.'[236] Building on Geary, Johan Lagae and Sofie Boonen have for instance used a selection of ten photographic 'scenes from Lubumbashi' to write an alternative history of the city. Similar to their way of 'highlighting as much what is depicted as what at times remains absent,' Robby Fivez has also noted how an absence of Europeans agents in

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233. As Edwards (2001, p. 2).
234. Azoulay (2019, pp. 3, 9).
235. Bishop (2013, p. 522) quoted in Boonen and Lagae (2015b, p. 15). Other publications that have utilized colonial photography to offer an new perspective on Belgian Congo's history are e.g. De Keyzer and Lagae (2010); Lagae (Forthcoming).
236. Geary (2003, p. 39) quoted in Lagae (Forthcoming).

photographic records of lime kilns may in fact reveal the existence of precolonial knowledge of lime burning in the region.[237] Just as the contradictions in colonial propaganda explored above, colonial photographs too 'present [...] points of fracture' or 'visual incisions through time and space' which allow 'the gradual opening of spaces for 'indigenous counter-narratives,' as visual anthropologist Elisabeth Edwards has argued. She stresses the need to concentrate on details – often found in the margins, or in the backdrop of images. These can help to move beyond a photograph's original narratives and intentions, opening up what she calls 'the punctum,' or the 'the inexplicable point of incisive clarity.' In her analysis of colonial photography in the Solomon Islands, she found such clarity through details of 'carefully tied knots in the lashings on a bamboo palisade.'[238]

Browsing through the variety of colonial photographs taken of early colonial healthcare infrastructure in Belgian Congo, and zooming in on the details of building materials depicted, one cannot help but feel the same 'sense of presence – of fingers that had tied those knots in other times.'[239] Organized according to the varying building materials and techniques used in the depicted hospitals, the following pages discuss and analyze a selection of these colonial photographs. Each of these pictures is earmarked by a number indicated in orange, which are then used to generate a final mapping of the widespread use of these local building techniques across the colonial territory. Through this mapping of building materials depicted in colonial photography, the figurative "fingerprints" of African agency become clear: it conjures an untold narrative of how Congolese laborers, patients, and staff worked at these construction sites, and how their presence co-shaped colonial hospital spaces through local building expertise – even if such technoscientific exchanges remained highly asymmetrical.

Indeed, either by force or due to personal fraud, hospital infrastructure was often realized combining the leftover scraps of building materials sent from the metropole with local 'matériaux indigènes.' As described in the previous chapter, much of the building materials sent from Belgium to realize the hospital infrastructure of the *Plan Renkin*, had been lost in storage or along the way. When the materials did arrive to their destination, they were often redeployed for personal building projects rather than public healthcare. Within this context of scarcity, doctors and local officials who did construct hospitals were often left to their faith, forced to rely on Congolese patients, kin, staff, and local villagers to realize 'ces constructions à caractère simples et provisoires,' with 'des matériaux dont on peut disposer sur place.'[240]

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237. Boonen and Lagae (2015b, p. 11); Fivez (Forthcoming).

238. Edwards (2001, pp. 2, 3, 6, 11).

239. Edwards (2001, p. 2).

240. AA/H 842, Letter from *Ministre des Colonies* Renkin to *Vice-Gouverneur Général*, 6 September, 1912. This practice was also critiqued in the early report of *Vice-Gouverneur* Malfeyt, who wrote that 'confier à un médecin 30 hommes quelconques avec la charge d'édifier un lazaret c'est se moquer de lui.' AA/H 842, Report of *Vice-Gouverneur Général* Malfeyt, 4 January 1910.

Image 31 . *Hôpital de Lusambo: Malades de sommeil et lépreux.*
1926; AA/RACCB 964.

Image 32 . *Hôpital* - Oldest hospital for Africans of Elisabethville,
Before 1921; MRAC, AP.0.2.4161.

Image 33 . *Lazaret, visite du médecin, Inongo.*
ca. 1926; AA/RACCB 964.

In what could be considered the most "extreme" cases, hospitals flagged on the *Carte* as 'durable' in reality included pavilions or huts constructed from plaited walls and nerves of raffia. These were the exact same building materials the 'odieux et puant chimbecks des natifs' were made of and that colonial propaganda and Western hospital planning so explicitly renounced as unhygienic.[241] Yet the presence of these materials and techniques in these photographs also raises questions about who had grown these crops, harvested the raffia, woven these together into wickerwork for walls or roofing, and strung these onto the wooden structures of the pavilions. Surely, this was not a trivial task. It took experience and a particular know-how to execute, and local European officials undoubtedly relied on the expertise of African labor available.

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241. *Le Congo Illustré*, 2, fasc. 23., 5 November, 1893, p. 178.

Image 34 . *Ancien lazaret de Coquilhatville.*
ca. 1910, MRAC, Ferrari, AP.0.0.11153.

Image 35 . *Le lazaret à Ibembo.*
ca. 1910; MRAC, AP.0.2.4135.

Image 36 . *Albertville, Hôpital des noirs.*
1925; MRAC, E. Devroey, HP.1953.21.397.

If plaited walls remained relatively rare in hospital infrastructure, the use of raffia nerves, straw or banana leaves for roofing was incredibly widespread - not only in the hospitals depicted here, but in many other medical centers as well, even well after the First World War (Image 36). What makes these three photographs particularly interesting, moreover, is the fact that the technique of horizontal 'lattes légères, solidement attachées à la carcasse du toit au moyen de lianes' - as described in older colonial publications - is clearly visible.[242] Once again, it is in this skillful roofing method that we can find the figurative "fingerprints" of African farmers, (enforced) laborers, and patients, who supplied building materials, worked on the construction site, or tied bundles of straw with lianas to wooden roof framings.

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242. Thys van den Audenaerde (1989, p. 47; 48).

Image 37 . *Hôpital des Noirs à Léopoldville.*
ca. 1902; MRAC, AP.0.2.11392.

Image 38 . *Léopoldville - Hopital de la Rive. Maisons de garde des RR. SS. infirmières.*
ca. 1910; MRAC, Office Coloniale, AP.0.1.3453.

Image 39 . *Hôpital des noirs - Lazaret de trypanosés.*
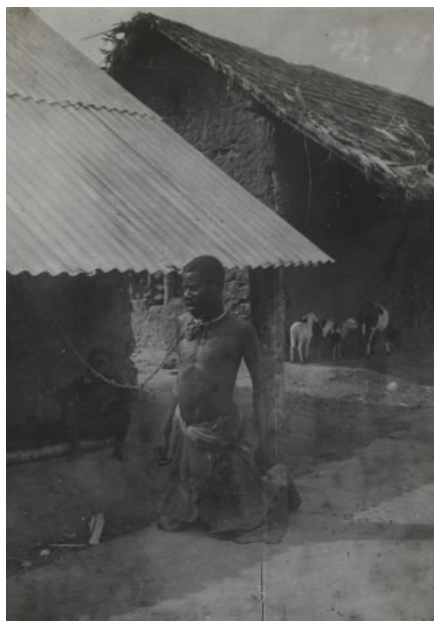*ca.* 1910; MRAC, Office Coloniale, AP.0.1.3394.

These 'odieux' and 'puant' techniques of plaited walls or straw roofing were often combined with the transitional and ambiguous construction method of 'en pisé,' as this set of photographs of the *Hôpital de la Rive* and its adjacent lazaretto in Léopoldville show. As briefly explained in the 1/S, this medical center had been one of the two billboarded 'institutions-modèle' during the Congo Free State period, yet had quickly fallen into decay. Even though parts of the lazaretto were built in the 1910s according to the type-plan of the *Plan Renkin*, many other structures were still realized using 'matériaux indigènes.' Despite the fact that the *Carte* flagged the medical center as a 'hôpital en pierres' and a 'lazaret en briques,' it seems that many of the sleeping wards were made out of plaited walls, and several general services or pavilions used by European staff were realized using 'en pisé,' even though this technique was widely dismissed as neither sanitary nor durable.

Image 40 . *Maladie du sommeil. Hôpital de Niemba. Il commence un moment de chute à droite pour tomber endormi*
1922; MRAC, G. Daniel, AP.0.0.21489.

Image 41 . *Fou (maladie de sommeil), au lazaret du Stan.*
This series of pictures focused on trypanosomiasis symptoms confirms what Azoulay has described as the divisive effects of the photographic shutter: it reveals the often coercive reality for (mental) patients in these early lazarettos, and how the colonizer dehumanized African patients in medical photography. At the same time, the unintended background of these photographs also suggests a different reality, one in which the state relied on African know-how to realize their widely propagandized hospital infrastructure.
Right: 1912, MRAC, A. Wibier, AP.0.0.31739; Left: 1912, MRAC, AP.0.0.7292.

Image 42 . *Kibunzi - Chaumières pour les malades*
1923; AA/RACCB 961.

Next to the hospital of Léopoldville, several other hospitals labelled on the *Carte* as realized with 'matériaux durables,' were in fact constructed using wattle-and-daub. But also after the publication of the *Carte* in 1913, and even after the First World War, the technique loathed in colonial discourse as unhygienic was nevertheless still widely deployed in hospital construction. The two pavilions with plastered walls and open wooden framework in the photograph of the Kibunzi hospital clearly show the different construction phases of 'en pisé.' The image of the Niemba hospital, on the other hand, confirms how the technique remained the subject of ambiguity in colonial propaganda even during the interbellum. Constructed as a military field hospital during the war, the Niemba hospital had become a symbol of the Belgian-Congolese successes on and off the battlefield. In a piece published in the metropolitan periodical of *L'Assistance Hospitalière,* the hospital was depicted as a model institute, even though the pictures in the article never zoomed in on the sleeping facilities and were seriously outdated, taken 15 years before, when the complex had just been finished.[243] The background of a series of photographs from 1922 which focused on sleeping sickness symptoms, however, paints a picture of the state and materiality of these sleeping wards that stands in stark contrast with that of the propagandistic article.

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243. *L'Assistance Hospitalière,* 2, 1932, pp. 67-74.

Image 43 . *Niangara hôpital. Maladie du sommeil, Sœurs dominicaines de Fichermont avec plusieurs malades et un infirmier.*
ca. 1930; MRAC, Dominican Sisters of Fichermont, HP.2010.8.562.

Image 44 . *Construction du lazaret de Pwa* [Pawa].
*ca.* 1941; MRAC, H. Rosy, AP.0.1.5514.

Image 45 . *Lazaret de Moenge, Buta.*
Unknown date, MRAC, Ordre des Prémontrés (Norbertins), AP.0.2.9989.

Perhaps one of the most distinguishable African building elements in photographs of colonial hospital infrastructure, were the decorative *chapiteaux* used to top off rounded hut structures. This was not only the case for the Niangara hospital - according to the *Carte* an 'hôpital en briques et tôles pour noirs' - but also for later hospital infrastructure, such the lazarettos of Moenge and Pawa. That all three medical centers depicted here were situated in the north of the colony, where the architectural practice of such *chapiteaux* was common amongst ethnic groups such as the Azande or Mangbetu, seems hardly coincidental. It is of course hard to gage whether these chapiters were the spontaneous result of exchange between African laborers and European overseers making do with the limited building materials available, or a conscious intent of colonial administrators to 'attract the local populations in ways that conventional European hospitals would not.'[244] Either way, however, in this instance, but also in the various previous photographs before, technoscientific interaction occurred, with African building expertise shaping the architecture of colonial hospital infrastructure.

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244. Such 'mimicking from above,' in which colonial powers 'borrowed native themes and motives as a way to legitimate domination' and as 'a technique of colonial biopower' has already described by anthropologist Bastos (2018, p. 77; 78) for the 'hut-hospitals' constructed by the Portuguese in Angola and Mozambique, as well as by Viviana d'Auria (2014) regarding housing in post-war Ghana.
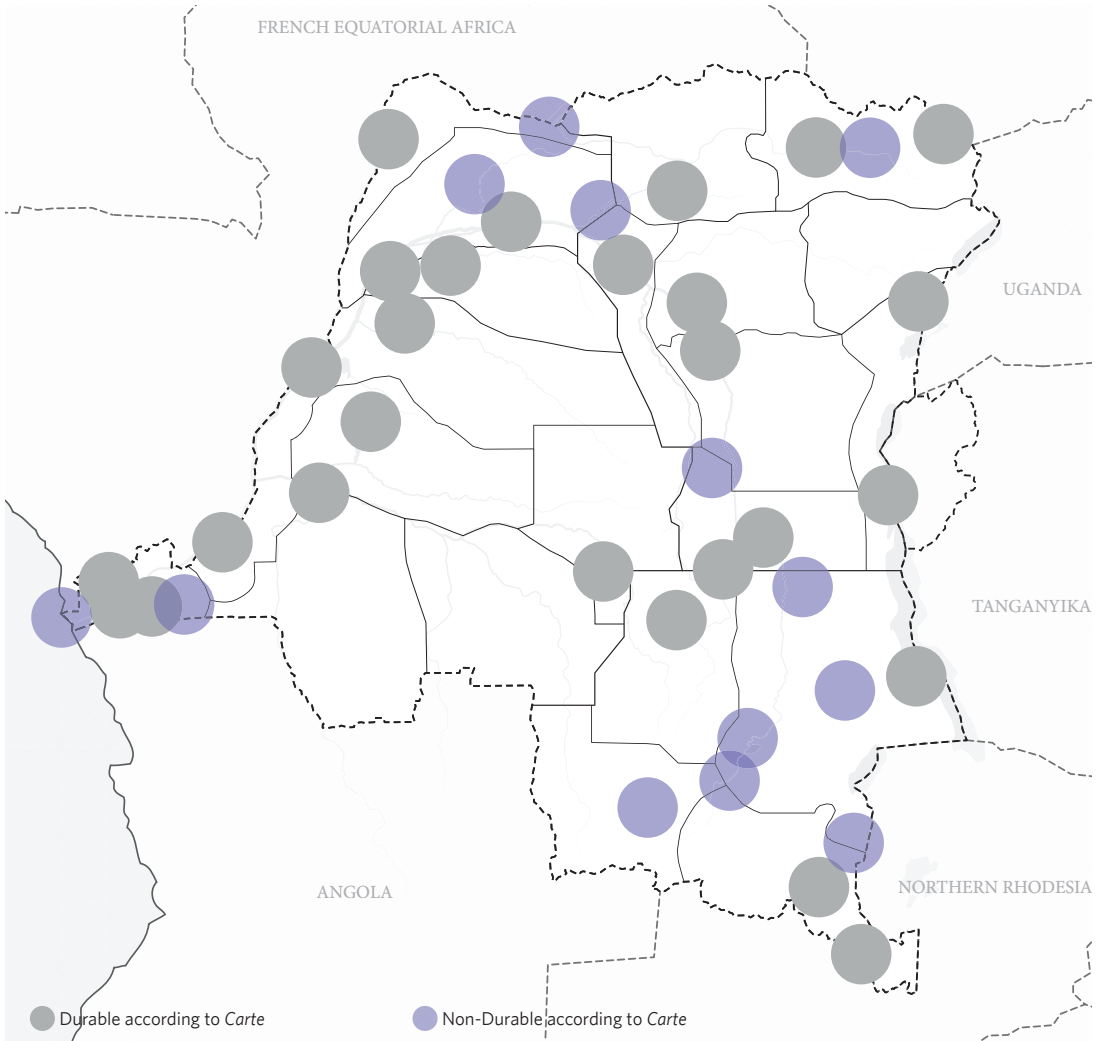
Image 46 . Redrawn *Carte du Congo belge indiquant l'emplacement des établissements hospitaliers en 1913*

The original *Carte* classifies variouss types of hospital infrastructure, including an 'hôpital en briques et tôles pour noirs,' an 'hôpital en pierres' and an 'hôpital en pisé.' These various categories have been mapped with the emphasis on the distinction between what were considered 'durable' and 'non-durable' building materials (respectively grey and blue). As the map contended, the larger part of healthcare infrastructure realized under the new Belgian colony, was allegedly built with 'durable' and thus 'modern' and 'hygienic' building materials.

● Durable according to *Carte*, yet non-durable in reality
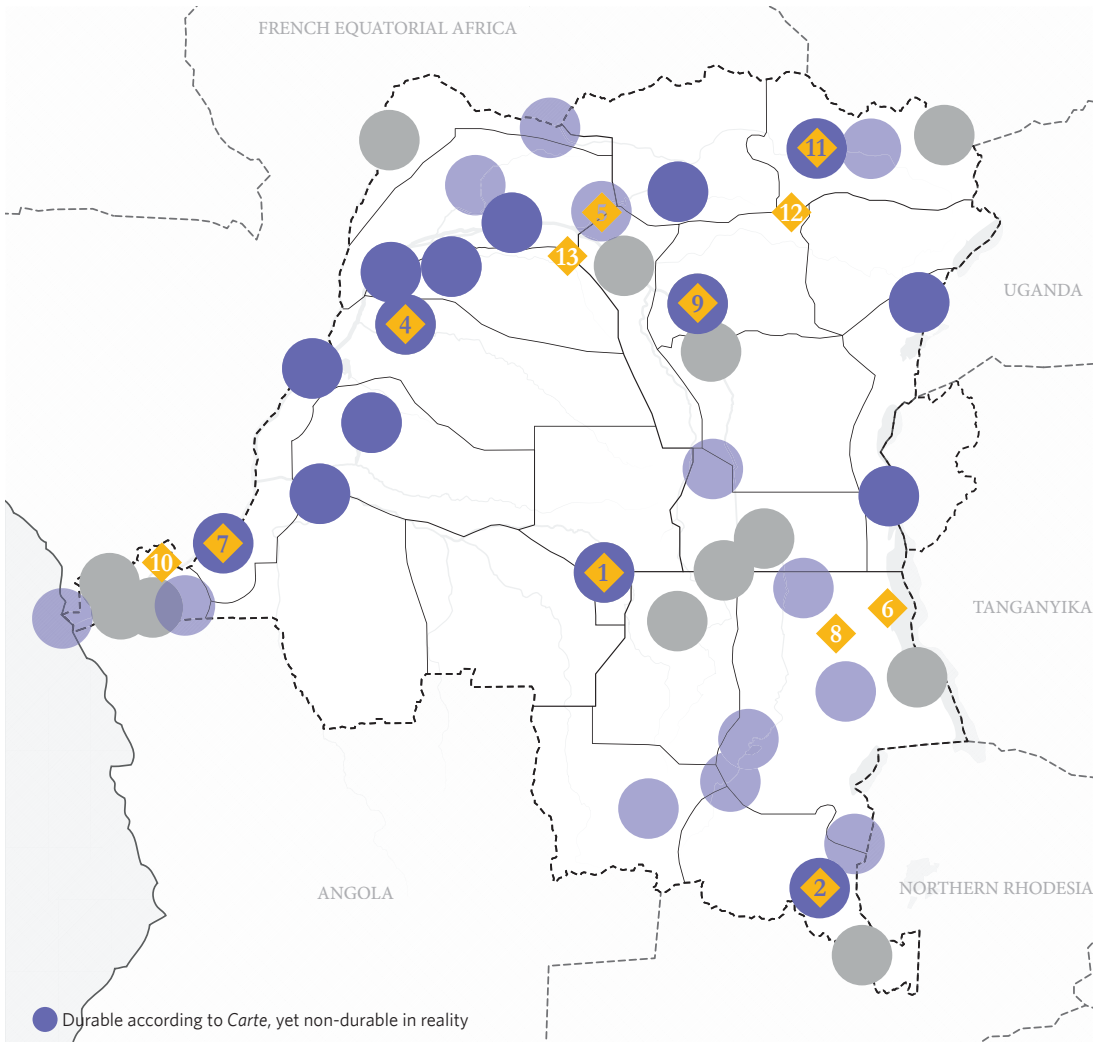
When the variety of traces of African agency discussed above is mapped onto the original *Carte*, however, it becomes clear that a much larger share of colonial hospital infrastructure was in fact realized using local building materials and techniques considered neither durable nor hygienic at the time. Not only were various hospitals indicated as 'durable' in the *Carte* in reality built using techniques such as plaited walls, straw roofing or 'en pisé' (indicated in dark blue), this practice also continued well into the interbellum - as became clear when inspecting various photographs of hospitals that had not yet been realized when the *Carte* was published.

Author's drawing based on *Carte* (AA/H 4390), various photographs and correspondence from archival sources mentioned above, *Rapports Annuels* of Belgian Congo (1909-1920).

These photographs were not the only clues of how colonial propaganda concealed with which building materials hospital infrastructure was effectively realized on the ground. Brief statements in the margins of the colonial *Rapports Annuels*, as well as correspondence in the colonial archives, suggest that several hospitals were effectively built with 'matériaux non-durables' or 'provisoires.' When mapped onto the by now known *Carte du Congo belge indiquant l'emplacement des établissements hospitaliers en 1913*, these various traces again confirm the multiple discrepancies in colonial discourse on building materials. They visualize how a substantial part of colonial hospital infrastructure was realized deploying the same African building techniques and local materials that were scorned as non-durable or unhygienic – a practice that would continue well into the interbellum.

On the one hand, by surfacing these "fingerprints" of African agency and material know-how in colonial hospital construction, this chapter aimed to contribute to the growing body of literature of postcolonial science and technology studies. In this scholarship, various authors have called to shift the focus away from 'earlier "diffusionist" arguments and discussions of polarization and conflict between "Western" and "indigenous" technologies, toward a more interactive, culturally-nuanced, multi-sited debate.'[245] On the other, such interactions open the door to some profound questions regarding the 'primitive' in architectural practice and theory. While recent scholarship has already urged 'architecture to attend more critically to its primitivist subtext,' and analyzed the way it hinges on an evolutionist view of 'the superiority of the civilized West over the uncivilized,' this work remains skewed towards Western architecture and theory.[246] Re-centering on building materials and typologies outside the West, however, may further unlock the 'full critical potential of the primitive.'[247] By surfacing the ambiguities in colonial discourse regarding the 'primitive' and zooming in on African "fingerprints" in colonial photography, we may find how the 'primitive' in different contexts pushes the boundaries of existing definitions of the vernacular – or what used to be uncritically termed 'primitive architecture.' In spite of its colonial propaganda, shortages of budget and manpower forced colonial officials to construct hospitals through an ambiguous combination of local and metropolitan building materials and techniques. Some of these, such as 'en pisé,' would be conventionally categorized as 'vernacular,' although their origins in itself are ambiguous and already the result of exchange in an imperial world. Highlighting this coproduction of the colonial state and African subjects, not only lays bare how definitions of the vernacular based on its etymological Latin roots of vernaculus or 'native' fall short to explain *who* actually builds the

245. Arnold (2005, p. 85).

246. Cairns (2006, p. 94) ; Forty (2006, p. 6). See also the reflection by King (2006, 2016) on the theoretical challenges for research on the 'vernacular,' in which he argues to focus more on dynamics of imperialism and globalization, yet at the same time draws all of his examples from Western architecture. He republished this text a decade later, reflecting how the focus of this scholarship has changed little.

247. Cairns (2006, p. 94).

'vernacular.' It also shows how conventional categorizations of the vernacular as timeless and 'primitive' fail to account for the fact that it was, and perhaps has been and always will be, the result of 'dynamic' processes of exchange and interaction.[248]

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248. The implicit definitions of most current-day research on vernacular architecture all too often still conjure the image of the 'vernacular' as timeless, or as an opposite to the modern. Neverthelees, I am, of course, not the first to make such an argument – even though the focus on building materials in an early colonial context is a relatively new way of undergirding such calls (an exception is the rather technical article by Leech (2005) on impermanent buildings in the colonial Caribbean, which also highlights instances of technoscientific exchange). Already in 2006, Asquith and Vellinga (2006, p. 2) highlighted how 'vernacular building traditions have always been dynamic and changing.' The editorial to the special issue of *ABE Journal* on 'Dynamic Vernacular' by Crinson (2016, p. 4) – in which he builds on his own contribution to the edited volume of Asquith and Vellinga – and the issue's articles are a concretization of how the 'expansion' of the 'vernacular' can lead to inspiring research. Especially insightful is the contribution by Allweil (2016, p. 1) who calls 'into question the Manichean divide between "modern" and "vernacular"' and instead proposes a new terminology of 'modern vernacular.'

1921 - 1945

Founding an 'armature médicale'

2/INTRO
Productive health and extractive politics

The 1910s had been a decade of struggles. Despite the ambitions of the new Belgian colonial government to shed the stigma of the red rubber atrocities, inheriting the Congo Free State had also resulted in taking over many of the vices of the earlier regime. The end of the First World War, however, marked a new era of change in Belgian Congo. As global markets recovered from the conflict, international demands for raw resources surged. Belgian Congo's mining industry, and in its wake its entire economic system, capitalized on the global economic boom of the 1920s. During this decade of financial possibilities, the colonial government tried to mend the early growing pains from which it had suffered in the 1910s. On the one hand, it aimed for an economically lucrative 'mise en valeur' of the colony, through investments in transport infrastructure as well as increasing manpower and administrative presence and control. On the other, colonial propaganda aimed to fully erase the tainted reputation of Léopold's regime and gain international acceptance as a valid colonial power. It did so not only by highlighting improvements in social sectors such as education and healthcare, but especially by 'selling' this 'mise en valeur' to a critical Belgian population as investments that were economically lucrative for the *métropole*.[1]

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1. On colonial 'mise en valeur,' see Lagae and Sabakinu Kivilu (2020); Vanthemsche (2020). On how colonial propaganda was used to 'sell the Congo,' and curb the alleged indifference of the Belgian public regarding the colonial cause, see Stanard (2012).

Belgian colonial officials indeed widely shared the conviction that a colony had to be, first and foremost, of economic value to its *métropole*. Just as in many other British, French and Portuguese colonies, logics of 'colonial extraction' loomed over Belgium's colonial policymaking throughout the interbellum, as Belgian Congo's authorities continuously aimed to maximize profits of resource extraction, through mining and agricultural production. [2] Yet, with this upscaling of the colonial extraction economy also came new challenges of industrialization, urbanization and professionalization, all of which were closely tied to an ever-pressing shortage of African labor. For the colony's booming mining industries, a network of road-, rail- and waterway infrastructure had to be built, connecting the sprouting mining towns and rural plantations across the territory with the increasingly important harbors and transit hubs. This 'armature économique' – as Minister of Colonies Henri Jaspar called the infrastructural network supporting industrial production and extraction in Belgian Congo – would allow a more efficient transportation of goods and resources in and out of the colony.[3] Its construction, however, just as the booming mining and agricultural sector, demanded the recruitment of manual workers on a scale unseen in Congo before, and racialized views about climate and work productivity undergirded economic labor policies. The African tropical climate, colonial officials conveniently believed, enforced a clear and perpetual labor division. As Minister of Colonies Henri Jaspar explained:[4]

> *Tout d'abord, il n'y a pas de Congo et de colonies congolaises sans main d'œuvre indigène. Le métier manuel au Congo est exercé par le noir dans toutes les parties chaudes, on peut donc dire sur presque tout le territoire. Il en sera toujours ainsi.*

Moreover, while African workers were deemed more suitable for manual chores under the African sun, they were still often reprised for their primitive, and allegedly lethargic lifestyle that was considered unsuitable for industrial forms of labor: 'le noir est transporté brusquement, dans certains cas, de ses habitudes agricoles ou de ses habitudes de nonchalance à un intense labeur manuel.'[5]

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2. In their economic comparative analysis of Belgian Congo and the Dutch Indies, Buelens and Frankema (2012, p. 2) argue that colonial extraction and exploitation went hand in hand. They define 'colonial extraction,' or the 'net transfer of economically valuable resources from indigenous to metropolitan societies,' as the primary aim of colonialism while they see 'colonial exploitation' or the 'practices and procedures facilitating the extraction of resources without adequate compensation to indigenous peoples and their natural environment,' as the means the achieve this goal.

3. Jaspar and Passelecq (1932).

4. Jaspar (1929, p. 13).

5. Jaspar (1929, p. 13). This reasoning also reflected how the interbellum marked an important transitional phase in thinking about modernity from one where a racialized hierarchy predetermined progress ('Il en sera toujours ainsi'), to one in which modernizing countries could and would follow the same linear path the West had paved – as I will explain in more detail in 3/Intro. As Jaspar continued: 'le noir n'a aucune préparation au travail intensif. Notre classe ouvrière s'est formée lentement au cours des âges. Elle est arrivée à la période du travail industriel après avoir passé par d'autres stades.'

Especially in the early 1920s, recruitment of African workers was indeed quite literally transportation. As a form of taxation, also tellingly called 'prélèvements,' the system of mandatory seasonal labor meant that young and healthy men were removed from the Congolese hinterland. This was also necessary since the colonial government increasingly started to exclude white working men – at the time referred to as 'poor whites' from the colonial territory. On the one hand, their presence, the authorities feared, would incite increasing syndicalism, not only amongst this white lower class, but especially amongst the colonized labor class, unsettling the colonial order through social unrest and claims for economic redistribution. On the other, these 'poor whites' would allegedly also threaten to 'nuire à la prestigieuse image du colonisateur « supérieur ».'[6] Already from the mid-1920s, the violent recruitment policies driven by these anxieties and the colonial extraction economy had ravaging effects in rural Congo, destabilizing existing traditional market systems, causing depopulation, and leading to accelerated spread of diseases.[7] This decline in healthy Congolese *main d'œuvre* had the colonial authorities worried and marked the beginning of a 'politique de stabilisation' in which both the colonial government and several large mining industries, with the UMHK as prime example, started moving away from seasonal labor.[8] More and more, corporations and the government provided better infrastructure or housing, and encouraged wives and children to join their African working men to the colonial cities, with the idea of creating an urban, intergenerational workforce.

With this emerging debate concerning a new 'politique de stabilisation', also came an even greater awareness about the pivotal economic role healthcare and hospital infrastructure had to fulfil in the colony: 'la question médicale confine très étroitement avec la question du problème de la main-d'œuvre,' Minister Jaspar wrote.[9] Hospitals, dispensaries and lazarettos mushroomed in cities and outposts across the Congolese territory and materialized the ambiguous agenda of colonial biopolitcs. On the one hand, in contrast to the *Hôpital des Noirs* in Boma, which had been explicitly built to legitimize colonial rule rather than offer actual healthcare, the interbellum hospitals did effectively aim to cure African patients. The Belgian dynasty was once again pivotal for the construction and funding of an important number of these hospitals, yet in contrast to Leopold II, it was much more genuinely concerned with African well-being. The royal couple King Albert and Queen Elisabeth undertook several trips to Belgian Congo, and co-

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6. Boonen and Lagae (2015a, pp. 55-56); Lauro and Piette (2009, p. 123). On syndicalism in Belgian Congo, see e.g. Etambala (1999); Higginson (1989).

7. On how forced labor caused the 'dissolution of local markets,' see Houben and Seibert (2012, p. 178); On forced labor in general, see e.g. Henriet (2015, 2017); Seibert (2011).

8. Authors such as Guy Vanthemsche (2008, p. 40) and Bruno De Meulder (1996, p. 77) have elaborated on such politics. See also the earlier pioneering work by Vellut (1982) on how state and private companies were closely intertwined in extractive colonial economies.

9. Jaspar (1929, p. 12).

funded important parastatal philanthropic organizations such as the *Fonds Reine Elisabeth pour l'Assistance Médicale aux Indigènes du Congo belge* (FOREAMI). The Queen especially displayed a sincere concern for the medical well-being of African mothers and children, even if her visits to local maternities were deployed in colonial propaganda to conveniently boast Belgium's colonial philanthropy. On the other hand, even the interbellum's more genuine healthcare served additional motives. The upscaling of extraction politics during the interbellum required a healthy African *main d'œuvre*, and a network of hospital infrastructure surging across the colony was aimed to ensure an increasingly productive labor force, through cure, but also through control and collection of biostatistics.

If biopolitics and medical infrastructure for Africans had to support colonial extraction, hospitals for Europeans – mostly constructed in the Congo's emerging urban centers – not only aimed to facilitate the colonial economy, but were also a response to several interrelated European anxieties. Whereas during the early colonial period, the tropical climate was feared in colonial discourse as a 'White man's grave,' the blame of contamination shifted during the interwar years from the African climate to the African population, who became pathologized as the source and carriers of tropical diseases. At the same time, the rising number of African inhabitants incited other anxieties. With the rising number of European women accompanying their husbands to Belgian Congo, African men – especially as domestic servants or *boys* – were considered a sexual threat, as they would defile the chastity of European women.[10] African urban masses – necessary *main d'oeuvre* for the colonial extraction economy – were also feared for possible revolts, undermining colonial order. Urban segregation became increasingly considered the panacea as a way to protect European inhabitants from contamination, sexual transgression and African insurgency. Just as in many other African colonies, this 'segregation mania' spread across Congolese cities, in which a 'cordon sanitaire' was increasingly deployed to separate the European *ville* from African parts of town. [11] While urban segregation was driven by anxieties of contagion, defilement and revolt, the same fears also led to the authorities anxiously monitoring and maintaining the 'prestige du blanc' through exclusive immigration policies regarding 'poor whites.'[12] The words of Marquis Roger de Chateleux – 'pas la Puissance sans Prestige'[13] – echoed through in numerous policy decisions and domains. At the *Institut de Médecine Tropicale* in Antwerp, for instance, the constant 'nécessité pour l'Européen de rester un chef digne de ce nom' was drilled to aspiring colonial doctors even before they left for Belgian Congo.[14] Anxieties

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10. Lauro (2005).
11. Nightingale (2012, p. 159), see also Introduction.
12. Leloup (2015, p. 61); Boonen and Lagae (2015a, pp. 55-56); Lauro and Piette (2009, p. 123), who also note that 'poor whites' were feared to blur racial hierarchies in sexual ways too, as they had 'la réputation d'être plus portés vers des relations sexuelles interraciales perçues.'
13. Chalux (1925, p. 540).
14. ITM/4.1.2. Course text *Hygiène coloniale prophylaxie*, 1919.

of what would happen if the European stature were to decay ran wild, as colonial officials imagined political revolt and revolution as inevitable consequences.[15]

Ambitions of economic extraction, its demand for a productive African labor stock, increasingly sincere healthcare concerns, and European dread of tropical disease, insurgent Africans and European prestige thus clustered together during the Interwar period and would have an important impact on policies of hospital infrastructure for Europeans. The *small* scale explores how these issues played out locally, by zooming in on the *Hôpital des Noirs de Léo-Est* in Léopoldville. As the largest hospital of the colony situated in the new capital, the facility was advertised in colonial propaganda as an exemplary medical institute. Yet, the facility was also a crucial cogwheel within the larger colonial extraction economy, by ensuring a healthy labor stock in and around Léopoldville, the colony's most important inland transport hub.[16] In the 1920s, booming numbers of African workers were being recruited from across and beyond Congo to come work in Léopoldville's harbor, as well as in the city's many blossoming construction and textile industries, smaller businesses or simply as domestic servants for the rising European population.[17] The *Hôpital des Noirs de Léo-Est* provided healthcare to these laborers, supporting both local industries as well as the general colonial economy.

In the *small* scale, I chart the genealogy of this hospital, and examine how and to what extent colonial extraction politics were materialized on the ground. At times, the hospital successfully achieved its intended biopolitical goals: as a paragon of the pavilion typology hospital, the architecture and registering systems of the complex allowed for an effective control, cataloguing and healing the African population. At the same time, however, many of the decisions that were taken locally by the hospital management, were not – or not exclusively – the result of biopolitics and colonial extraction. Rather, they were often the hybrid outcome of interdependence and negotiations between multiple actors on the site. Local officials made do with the limited means they had at their disposal, likely more concerned with keeping the hospital going and curing patients than with the larger picture of the colony's overall economic performance. European nurses had their own agendas, ranging from mundane demands about the equipment of their dorms or their monthly paycheck, to a religious quest for the conversion of African souls. Lastly, African patients and visitors also had an important yet often overlooked impact, altering or pressuring the hospital's spatial regimes of logistics and accessibility in surprising and unforeseen ways. Although colonial discourse

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15. As Lauro and Piette (2009, p. 123) wrote: 'les débordements imaginés comme les conséquences directes de cette perte de prestige mobilisent bon nombre d'anxiétés chez les colonisateurs.'

16. From Léopoldville, the Congo river again became navigable, and the many resources going to, and coming from the Congolese inland were loaded off and onto trains towards Matadi, the colony's main seaport.

17. For an economic analysis of the particular commercial role of Léopoldville in Belgian Congo's industrialization process, see Buelens and Cassimon (2012, p. 237).

often reduced Africans to a lethargic mass of *main d'oeuvre*, the way Congolese patients, medical staff and visiting family members shaped the everyday reality of colonial healthcare institutions, instead highlights the undeniable agency of the colonized.

Yet keeping African laborers healthy and productive was not the colonial government's only concern in the rapidly growing city of Léopoldville – or other colonial cities for that matter. With the rising numbers of *main d'œuvre* came European anxieties about disease and insurgency that led to the increasingly strict policies of urban segregation. In the **medium** scale of this chapter, I analyze how the architectural design and urban location of medical infrastructure for both Africans and Europeans was deployed within these segregation politics. This will not only give a sense of how healthcare across the city was effectively organized, but will especially raise questions about how the contrasting strategies of architecture and urban planning of both hospitals aligned with Léopoldville's broader 'segregation mania.' On the one hand, the 'out-of-place' location of the *Hôpital des Noirs* – oddly situated in the European parts of town – led to architectural attempts by the colonial government to conceal the hospital from its European surroundings. On the other, the hospital for Europeans, with its architectural grandeur, comfort and urban visibility, had to soothe European anxieties about the 'prestige du blanc' and turned the complex into a flagship of Belgian Congo's medical service. Although the realization of both hospitals did not exactly turn out as planned, the glaring contrast between the two original projects reveals the importance of 'politics of in/visibility.'[18] As explained in the introduction, authors have widely described architecture as a materialization of 'visible politics' – the 'highly visual and politicized image of power' – often focusing on conspicuous, monumental architecture.[19] Yet, as I argue in the **medium** scale, in a colony anxious about segregation, hierarchy and prestige, it seems that strategies of invisibility were equally undertaken as an attempt to construct a visual image of colonial power, complementing classic visible architectures to consolidate colonial order in the capital's cityscape.

Léopoldville's hospitals – both for Europeans and Africans – were perhaps exceptional in size or architectural ambition, but were still part of a much larger campaign of hospital construction across the colonial territory. In 1921, the *Plan Franck* was launched, a colony-wide infrastructural program that primarily sought to facilitate the colonial extraction economy by establishing a network of transport infrastructure as an efficient 'armature économique,' but which also entailed a colony-wide network of hospital infrastructure. This network – or what prominent healthcare policymakers later tellingly termed the 'armature

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18. While politics of visibility and invisibility are a vast topic of study in social sciences, and, to a lesser extent, in colonial histories, the exact spelling of 'politics of in/visibility,' is drawn from Simonsen, De Neergaard, and Koefoed (2020). I will explore the term more extensively under the 2/M.

19. Bozdoğan (2001, p. 9); Chang (2016, p. 10).

médicale'[20] – was considered key in the successful implementation of the colonial extraction economy. The realization of such a vast construction program, however, necessitated a professional bureaucratic apparatus that had been lacking under the earlier *Plan Renkin*. In the **large** scale, I trace not only the realization of this hospital network, but also the administrative 'scaffolding' behind its execution. While a first important attempt towards administrative professionalization was undertaken after the report of the *Mission Maertens*, the bureaucratic *modus operandi* of the interbellum remained marked by strategies of improvisation and making do. Once again, the use of (type-)plans forms an important entry point to study these everyday administrative workflow. Central and local policymakers exchanged and recycled existing hospital plans for various hospital construction projects, recompiling new hospital configurations as a combination of existing designs and ad-hoc local adaptations. While these improvisational adjustments reveal how the ambitions of the *Mission Maertens* to create a professional and well-oiled colonial apparatus had remained largely in vain, they would nevertheless prove crucial, not only for the effective realization of the interwar 'armature médicale,' but also as a learning ground for the even larger hospital construction program of the post-war period.

Lastly, the chapter on **architecture** zooms in on the case of the *Clinique Reine Elisabeth* in Coquilhatville, exploring the typological adaptations made by local officials. The pavilion typology hospital had become institutionalized in the Belgian metropole, through various, yet mainly Western networks and modes of architectural knowledge exchange, and also served as the main inspiration for the design of the *Clinique*. Yet local architects, and especially doctors not only tapped into these metropolitan and Western body of knowledge, but were also inspired by other, transnational networks of knowledge transfer. They deployed personal relations, and connections between colonial administrations to acquire best practices of better suited colonial hospital planning, 'translating' these to the tropical climate, and colonial hierarchies that marked the local context of Coquilhatville.[21] As such, studying local typological innovations in colonial hospital design not only contributes to histories of hospital architecture in general, but also allows to highlight flows of expertise and 'aggregate actors' that have hitherto remained 'off the radar' in architectural historiography.

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20. As Dubois and Duren (1947, p. 7) termed it, in reference to the 'armature economique.'
21. Akcan (2012).

Image 1. Hospital entrance signs, *ca.* 1950 & 2010

A notice in French, Lingala and Kikongo at the entrance depicted in a 1950s photograph of the hospital entrance announced the visiting hours of the hospital, and warned that: 'Les visiteurs sont priés de quitter au son de cloche,' indicating that this indeed had already posed problems. This sign, and the practices it sought to prevent, foreshadowed the current reality of *garde-malades* and *débrouillardise* in the *Hôpital Mama Yemo*, which is still evoked by the entrance sign today.

Above: MRAC, HP.2010.8.3079.
Below: Marc Gemoets.

2/SMALL
Hybrid governance in Léopoldville's *Hôpital des Noirs*

Despite more than half a century apart and separated by decolonization, the message of the entrance sign at the colonial *Hôpital des Noirs de Léo-Est* in the 1950s is surprisingly reminiscent of that on the gate of the *Hôpital Mama Yemo*, as both notices prohibit African visitors from staying after visiting hours. Current-day practices of African *garde-malades* cooking and residing in the hospital are in fact common, despite the explicit warning at the gate, suggesting that similar practices may have occurred during colonial times as well. As such, the similarities between both entrance signs urge us to think beyond the obvious and often emphasized differences between the colonial and postcolonial period, and to acknowledge some overlooked continuities that exist within the *longue durée* of Congo's hospital infrastructures.

This ***small*** scales aims to highlight this and other continuities in the hospital for Africans of Léopoldville, by surfacing historical forms of 'hybrid governance,' a concept currently gaining attention in academic scholarship on Africa. Stressing continuity stands in stark contrast with the (perhaps overly) emphasized ruptures that occurred after the country's independence. Indeed, many bleak accounts published in the latest decades in popular media depict postcolonial Congo

as the archetypical example of a 'failed state.'[22] These grim portrayals directly build on a particular strand of academic literature that has depicted many so-called Third World countries as 'failed' or 'collapsed' states and 'vacuums of authority.'[23] But while failed-state perspectives are still abound in popular media, this academic paradigm – which burgeoned in the 1990s – is increasingly being questioned in current studies on African politics and governance. All too often, research on the failed state myopically focused on 'what there is *not*,' measuring African statehood by ahistorical, Western-based Weberian criteria of an idealized state.[24] Instead, several authors have proposed an alternative, more 'empirically grounded' understanding of African public authority that highlights 'governance as the outcome of complex negotiations between a number of actors, groups and forces.'[25] As authors such as Timothy Raeymaekers, Koen Vlassenroot or Kristof Titeca have shown for the case of Congo, 'hybrid' or 'real' governance can include both state and non-state agents, varying from NGOs, private companies, vigilante organizations, and citizens, to state military, militias and even rebel groups.[26]

Yet as I want to point out in this chapter, the co-existence and interaction between a myriad of organizations, institutions and actors is far from a new phenomenon in Congo's governance. While some of the literature on 'hybrid governance' has acknowledged this,[27] most of this scholarship remains quintessentially focused on describing the current state of affairs. Nonetheless, it may be worthwhile to extend such 'hybrid governance' perspectives to the historical reality, deploying its 'emphasis on the messy nature of state-building' as a refreshing entry point to unpack how, and by whom, real governance in colonial Congo was actually shaped and negotiated.[28]

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22. A clear example of such publication is for instance: Herbst and Mill, 'There is no Congo: Why the only way to help Congo is stop pretending it exists,' *Foreign Policy Magazine*, 18 March, 2009.

23. Rotberg (2003, pp. 1, 9). The USA has also adopted a foreign policy towards so-called developing countries in the 1990s that has equally been termed the 'Failed-State' paradigm. Built around similar premises, it identified weak, failed, or collapsing states as possible security threats and a breeding-ground for terrorism, harmful migration, and crime.

24. Titeca and De Herdt (2011, p. 215).

25. Titeca and De Herdt (2011, p. 215); Meagher, De Herdt, and Titeca (2014, p. 1).

26. Congo has played a central role in this emerging debate. Next to aforementioned publications, see e.g. Büscher (2012); Hoffmann, Vlassenroot, and Büscher (2018); and the edited volume of De Herdt and Titeca (2019). For hybrid governance by 'twilight institutions' outside Congo, see e.g. Lund (2006).

27. As Titeca and De Herdt (2011) have discussed, this was for instance the case in education in Belgian Congo. Moreover, medical histories have already noted how Belgian Congo's healthcare system heavily relied on religious organizations and industrial corporations, but have not zoomed in on particular infrastructures or examined how medical governance was implemented locally (see e.g. Burke (1992). Beyond Congo, too, public services such as healthcare were often the shared responsibility of government, industry and religious organizations. See for instance the several contributions in Greenwood (2016) for colonial British Africa, or how Geissler (2015a) briefly acknowledges the historical roots of his concept of the 'parastate,' a notion that roughly aligns with 'hybrid governance' but is specific to African healthcare and medical research facilities.

28. Meagher et al. (2014, p. 3).

This chapter highlights such local dynamics of negotiation, by tracing the multiple and changing agencies of various actors during the historical planning and development of Belgian Congo's largest hospital, the *Hôpital des Noirs de Léo-Est*. The concept of agency is key here, because it forces to give 'new actors prominent roles on the historiographical stage,' and to explore and acknowledge the critical yet often neglected impact these had on the colonial everyday reality.[29] While agency is, generally put, anyone's 'ability to act or perform an action,' the academic scholarship on colonialism that has deployed the concept has mainly focused on the colonized, arguing how in spite of repressive colonial regimes, the subdued were nonetheless able to 'initiate action in engaging or resisting imperial power around.'[30] James Scott's seminal work on 'everyday resistance' or 'infrapolitics' marked a milestone, revealing how subaltern groups undertake mundane activities, such as false compliance, slander, evasion, or foot-dragging, not just as survival tactics but as small-scaled political acts of resistance against state-led power.[31] Scott's plea to unpack how the subdued have questioned and influenced (colonial) rule and reality, remains incredibly important and merits being put to use for various domains of colonial life, including healthcare, as I will do in this scale.

Focusing on the agency of the colonized, however, bears the risk of over-romanticizing the 'legendary cleverness and inventiveness of ordinary people.'[32] Neither should we overly politicize these everyday activities as conscious contestation, even if African prosaic practices often challenged 'conventions of colonial society and traditional African gender patterns.'[33] Contrary to what Scott or the academic work he incited seems to contend, political protest was most likely not the mainspring of most day-to-day activities of the colonized. Instead, as recent scholarship on the colonial everyday and leisure suggests, mundane efforts such as making sure there was food on the table, having a beer, playing football or enjoying family life were much more important in the daily decision-making of African inhabitants than intentional political protest.[34] That these activities sometimes undermined colonial control, or were feared by the colonial authorities, was a corollary rather than the initial goal. Ironically, the tendency of some publications on agency to read everything the colonized did as mere political counteraction to colonial authorities, has somewhat discounted the possibility that African inhabitants had and developed an own life-world that exceeded colonial rule.

29. Eckert and Jones (2002, p. 7).
30. Ashcroft et al. (2000, p. 8).
31. J. C. Scott (1985, p. 27; 1990, p. 19).
32. Trefon (2004).
33. Beeckmans (2013b, p. 235).
34. See e.g. the micro-history of Lynn Schler (2008) on New Bell, Douala; On leisure and beer in African history, see e.g.: Akyeampong and Ambler (2002); Brennan, Lawi, and Burton (2007); Burton (2007). For Congo's capital in particular, Didier Gondola (2016) has shown that 'everyday resistance' does not fully grasp the daily socio-cultural practices of African youth culture.

Often, it are archival traces, which at first glance look trivial and little exciting, that provide the best opportunities to avoid these pitfalls. Despite the absence of direct African voices in the archives, mundane information on the logistical management of the hospital – menus, records of storage rooms or hangars, discussions concerning the (mal-)functioning of the kitchen, or seemingly inconsequential details scribbled on architectural plans – can nonetheless offer glimpses of African everyday activities in the hospital, and the surprising impact these had on the governance of the complex. Because these traces deal with rather mundane activities, they allow to avoid over-interpreting these as consciously political acts, and help to acknowledge that although Africans absolutely impacted the functioning of the hospital, their voices and possibilities for agency still differed from other, European, actors. Unearthing European agency from the archives is, of course, often more straightforward. The religious order serving the hospital stored its own archives, and local medical staff and high-ranked authorities compiled medical annual reports, official correspondence and internal notes concerning the governance of the hospital. It is this combination of seemingly trivial traces of African daily practices, and more official government documents and plans, that allows to better grasp the everyday life in, and (spatial) governance of, the hospital throughout the colonial period.

This *small* scale follows four distinct periods in the genealogy of the hospital, which roughly coincide with the four decades between 1910 and 1950. Already before the hospital opened its doors in 1924, the surprising agency of Africans left its mark, as African practices of eating, storing, visiting and gathering colonial officials had noticed at the city's older hospital impacted the planning and design of the *Hôpital des Noirs de Léo-Est*. Although the hospital was designed according to the classic pavilion typology – reflecting its broader biopolitical goal of maintaining a healthy labor force necessary for colonial extraction – the initial plans included hangars where Africans and their visitors could cook and come together. Such informal practices of gathering of course went against the rigorous separation of different pathologies and patients the pavilion typology was designed for. After its opening, the hospital went through a first and turbulent decade. While the pavilion hospital did allow improved procedures of administrative registration and spatial control, the facility's daily functioning did not always adhere to the strict logics of a 'machine à guérir.' Africans again questioned and altered the logistical governance of the hospital through practices of eating and cooking, yet other actors also impacted the everyday reality in the complex. Religious nuns, who nursed the patients, had their own agendas, which sometimes clashed with the hospital management, who itself struggled to keep the overcrowded hospital running with the limited financial support it received from the central government budget.

The economic crisis of the 1930s brought a surprising relief, as less African laborers visited the hospital. With these improved conditions, the institute became mobilized in colonial propaganda as an exemplary hospital. The start of the war and the economic surge this caused, however, again reintroduced the same old problems. With a limited budget and too many patients to feed and care for, the management had to make do, increasingly relying on African patients and visitors to cook for themselves. These persistent African practices of cooking and caring not only impacted the spatial use of the hospital, but even its built environment, as additional hangars were constructed to facilitate these activities. While the hospital management made choices that often went against the general biopolitical standards of the 'machine à guérir,' they made the best of the limited budget and personnel available. Although such 'hybrid' forms of governance were not what the colonial authorities had initially planned, nor what they were keen on advertising to the outside world, it were these daily negotiations and interdependence between various actors that at least kept the hospital running.

Learning from the past

When the colonial administration decided to move the Congolese capital from Boma to Léopoldville in 1923, an ambitious urban planning project was set up to transform the still modest town into a prestigious and monumental capital befitting of the Belgian colony.[35] Next to the many roads, residences and administrative buildings realized during this transformative period, new hospital infrastructure was constructed, not only for Europeans, but also for Africans. The *Hôpital des Noirs de Léo-Est*, as it was called, would quickly grow into the largest hospital for Africans of the colony. When it opened its doors in September 1924, however, it was still a rather modest complex of which the construction process, including the call for tenders, took little over a year – an incredibly short period when compared to many other government projects of the time.

Despite its moderate dimensions and quick construction, the planning of the hospital already had a surprisingly long history. From discussions prior to the new *Hôpital des Noirs de Léo-Est*, it becomes clear that the authorities were learning from past experiences learned in the city's older hospital for Africans, the *Hôpital de la Rive*. In 1902, King Léopold had ordered to construct this hospital for Africans for the same reason as the one in Boma: the *Commission d'Enquête* was planning to pass by Léopoldville, and a new medical infrastructure had to convince the commission of the monarch's genuine philanthropic ambitions in the Congo Free State.[36] Nevertheless, the *Hôpital de la Rive* quickly showed many of the same flaws that had also plagued the *institution-modèle* in Boma.[37] However, in contrast to Boma, where a new hospital for Africans would only be built in the 1950s,[38] the everyday reality of the *Hôpital de la Rive* in Léopoldville proved an important learning ground for local colonial doctors and policymakers when they started planning a new facility less than two decades later. Many of the same officials that had become familiar at the *Hôpital de la Rive* with cultural customs of African patients – especially their particular ways of cooking, storing, eating and meeting – also oversaw or advised on the construction of the new hospital for Africans. And although the way in which the European staff interpreted, responded or repressed these African practices was more often than not imbued with racist views, correspondence concerning the planning of the new *Hôpital des Noirs de Léo-Est* reveals how these earlier experiences of contact and negotiation in the old *Hôpital de la Rive* nonetheless influenced the new design.

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35. Lagae (2007).

36. See Mahieu (1911); Auvenne (1983, p. 76).

37. Although the Commission approved the new medical infrastructure, its commentary was much less favorable when compared to the praise the hospital in Boma had received: 'L'ancien hôpital de Léopoldville, qui avait donné lieu à des critiques fondées, a disparu et a été remplacé par des installations qui, sans avoir l'importance et le confort de celles de Boma, répondent, en somme, aux besoins actuels.' See *Bulletin Officiel*, 1905, p. 85.

38. See the several public tenders mentioned in 1/S and AA/GG 7203, *Plan du nouvel hôpital de Boma*, 11 October, 1949.

Image 2 . *Léopoldville. Hôpital des Noirs et le Congo*
ca. 1910, MRAC, Pelet, AP.0.0.9569.

Image 3 . *'Le réfectoire de l'ancien hôpital des noirs'*
ca. 1915, MRAC, Dr. Fronville, AP.0.2.10889.

Just as in Boma, the everyday practices in the *Hôpital de la Rive* can only be fully understood when looking at the complex' quickly dilapidating architecture. Already in 1912, 'les anciens pavillons' were 'fort délabrés,' and despite important restauration works being planned to replace these buildings, nothing much had changed by the beginning of the 1920s.[39] The large numbers of African migrants arriving in booming Léopoldville only made matters worse.[40] As a former prime Minister noted in his travel diary: 'autre phénomène de croissance urbaine trop rapide, c'est l'insuffisance de l'hôpital pour les noirs. Faute de place dans les salles, des malades logent sous la tente.'[41] Overcrowded and in decay after a decade, the *Hôpital de la Rive* became increasingly challenging for the staff to maintain as a 'machine à guérir' – if it ever even functioned as such. This again was closely tied to the original architectural realization of the hospital. For instance, the choice not to install insect screens in front of the window but to use mosquito nets instead, went surprisingly awry according to the European staff. As the *Médecin-Directeur* Dr. Houssiau attested in the hospital's annual report: 'Les malades profitent de leur moustiquaire pour faire de leur lit un véritable magasin, où ils placent de l'huile, des chigwangues, du poisson fumé etc. et en font un vrai réduit de saletés.'[42] These practices eventually incited the management to construct new hangars, while also introducing a new 'règlement d'ordre intérieur défendant aux malades de séjourner dans les salles entre six heures du matin et 5 heures du soir. Durant ce temps, ils doivent se tenir sous les hangars couverts.'[43]

This response not only reveals the exasperation of European officials concerning the eating and stocking habits of the African patients, but at the same time raises questions about the logistics of the hospital. Why did patients have or want to store food, when a kitchen service existed on the compound? Later correspondence suggests that the kitchen didn't function consistently, as firewood often was in

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39. AA/RACCB 756, *Rapport sur le fonctionnement de l'hôpital des noirs pendant l'année 1912*. In 1922, After passing through the hospital, the *Médecin en Chef de Province*, Dr. Lejeune wrote: 'J'ai dû ordonner au Docteur Staub, Médecin de l'hôpital des Noirs, de cesser les interventions chirurgicales […]. Les opérations recommenceront, quand le dispensaire, la salle de chirurgie et un pavillon pour opérés seront appropriés. Il se produit trop fréquemment des suppurations dues à l'état lamentable.' AA/GG 22451, Letter from *Médecin en Chef de Province* Dr. Lejeune to *Commissaire de District*, 14 November 1922.

40. According to Whyms (n.d.), the number of 4450 Africans living in Léopoldville in 1909 quadrupled to 21 601 by 1921. Whyms was the pseudonym of Hélène Guillaume (1876-1960), who compiled an extensive unpublished manuscript of over 3000 pages about the development of Léopoldville from 1881 until 1956, entitled *Chronique de Léopoldville de 1881 à 1956*. As a journalist, she was working for *Inforcongo*, the colonial propaganda office, and published in several colonial periodicals. As such, although an even more concise version of her text was published, the original manuscript still remained very much a polished and lob-sided history of Léopoldville. See e.g. the historiographical discussion on her work by Lagae (2009, pp. 339-340).

41. Carton de Wiart (1923, p. 113). A few years later, when the new *Hôpital des Noirs de Léo-Est* had already been constructed, Dr. Mouchet noted during a *voyage d'inspection* how the hospital was still overcrowded: 'l'encombrement est […] pitoyable: il y a parfois deux malades par lit dans les salles permanentes.' AA/GG 911, *Rapport d'inspection, Médecin en Chef-Adjoint, Dr. Mouchet*, 15 May 1927.

42. AA/H 4393, *Rapport sur le fonctionnement de l'hôpital des noirs de Léopoldville*, *Médecin Directeur* Dr. Houssiau, 1910.

43. AA/H 4393, *Rapport sur le fonctionnement de l'hôpital des noirs de Léopoldville*, *Médecin Directeur* Dr. Mouchet, 1912.

short supply and couldn't be reliably delivered.[44] This may have been the reason why certainly by the 1920s, but most likely much earlier already, African patients were allowed and even expected to prepare their own meals. The *Règlement d'ordre intérieur* of the hospital of 1922 stipulated that patients, after they had received their daily rations during 'la distribution des vivres,' were strictly forbidden to 'allumer du feu dans les salles, la préparation de la nourriture ayant lieu dans la cuisine et sous les hangars réservés à ce but.'[45] That patients were storing personal stashes of food in mosquito nets on top of the distributed portions, suggest that visiting family members may have brought additional produce to cook and eat together under the sheltered space of the hospital's hangars, a practice that echoes precolonial healthcare systems where the sick closely relied on family members for personal medical care, provision and protection.[46] That African patients continuously brought in, cooked and stored their preferred food was at first likely against the will of the European doctors, but these later turned a blind eye condoned these practices. It seems that European staff became increasingly aware of the importance of these sheds where African patients cooked, talked, ate, gathered and took shelter from the rain and sun. Indeed, the hospital management quickly even compelled 'les anciens malades' to construct 'de nouvelles paillottes' and 'hangars-abri' as a response to ever mounting numbers of African migrants seeking medical care at the complex.[47]

As the original hospital buildings deteriorated and improvised solutions from both the European staff and the African patients and visitors became more commonplace, officials worried the hospital threatened the colony's medical reputation:[48]

> Les Médecins qui passent à Léopoldville pour les répandre dans tout le Congo et qui font un stage à Léopoldville, passent par cet hôpital et devraient y apprendre la routine d'un bon travail et d'une bonne administration. Notre hôpital devrait donc être un modèle au lieu de cela, vous savez que le piètre impression il produit [sic].

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44. This was also the reason why the *buanderie* didn't function properly, and unsterilized bandages had to be dumped onto the river banks. AA/GG 22451, Letter from *Médecin Directeur* to *Commissaire de District*, 9 August 1928.

45. AA/GG 5533, *Règlement d'ordre intérieur,* 18 November 1922.

46. This stocking of food may actually hint at subtle ways of protest against the hospital's food services, as Africans may have preferred their own familiar dishes over European bulk meals. Later correspondence concerning the second *Hôpital des Noirs* in Léopoldville will reconfirm such practices. On precolonial practices of quarantine and reliance on family during sickness, see Lyons (1985, 1988).

47. AA/GG 16807, Letter from *Médecin en Chef de Province* Dr. Lejeune to *Gouverneur Provincial*, 24 January 1924; AA/GG 16807, Letter from *Médecin en Chef de Province* to *Commissaire de District*, 17 October 1923; AA/GG 14927, Letter from *Gouverneur Général* to *Vice-Gouverneur Général de Congo-Kasaï*, 26 June, 1920.
Later correspondence suggests that these temporary hangars would most likely be walled and roofed with 'ndele (tuiles en feuilles de palmier),' again indicating the importance of local knowhow and construction techniques in colonial hospital infrastructure. See 1/A; AA/GG 911, *Rapport d'inspection, Médecin en Chef-Adjoint, Dr. Mouchet,* 15 May 1927.

48. AA/GG 22451, Letter from *Médecin en Chef de Province* Dr. Lejeune to Commissaire de District, 14 November 1922. That Léopoldville was indeed frequented by various high-ranking foreigners, becomes clear when reading Georges Moulaert's description of these 'visites.' See Moulaert (1948, pp. 118-124).

While these fears confirm that colonial doctors and officials had mixed feelings regarding this everyday reality – as they both facilitated and condemned it – the fact that the *Hôpital de la Rive* functioned as an important teaching facility for beginning colonial doctors, reveals that many of the arriving medical staff nonetheless became acquainted with these practices.

Correspondence on the planning of the new *Hôpital des Noirs de Léo-Est* from the 1920s onwards suggests that these experiences were incorporated into the design of the new hospital.[49] By 1920, an of *Médecin en Chef* Dr. Rodhain, Dr. Lejeune and Dr. Vanden Branden, three prominent doctors of the colonial administration, convened to outline the architectural principles of what would eventually become the largest and most modern hospital of the colony.[50] With the report, they provided 'des propositions-plans de l'hôpital de Kinshasa' and determined many of the crucial design concepts for the hospital, including the use of twin pavilions of thirty six beds each.[51] They discussed the necessity to separate gender – 'J'insiste sur l'importance qu'ont pour les indigènes la bonne ordonnance et la discrétion qui doivent présider à ces examens' – but also outlined more technical decisions such as the width of verandas or the use of high, easy-to-open windows for ventilation.[52] Most notably, the report suggests that these doctors had learned from earlier experiences: they stressed the importance of a 'hangar de repos pour convalescents' explaining that 'le noire aime de se mettre à l'air libre et pour ne pas encombrer les vérandah [sic.] ces hangars sont très utiles.' As such, the tenacious African customs of storing, importing and preparing local meals at the *Hôpital de la Rive* likely influenced policymakers to adapt the design for the new hospital to these practices.

The proposal for the hangars, however, was eventually not incorporated in the hospital's final execution. Instead, a general kitchen and 'réfectoire' were constructed where patients would have to gather and eat meals prepared by the staff. The precise reason for this last-minute change is unknown, but most likely budgetary restrictions caused officials to only construct the bare necessities. The sheltered spaces for African patients were perhaps already considered a hygienic or disciplinary danger by some colonial officials, and with a stringent budget, they were quickly scratched off of the plan. While these hangars remained paper projects, they nonetheless show that even high-ranking doctors – albeit grudgingly and often with racialized prejudice – started taking into account Congolese logistics of care.

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49. The earliest confirmation of the decision to construct a new hospital found in the archives dates from an assessment of the medical infrastructure of Léopoldville from 1919. See AA/GG 16851.

50. AA/GG 16851, *Note pour Monsieur le Gouverneur Général au sujet des constructions hospitalières pour Noirs à édifier à Kinshasa*, by *Médecin en Chef* Rodhain, in collaboration with Dr. Lejeune and Dr. Vanden Branden, 17 October, 1922.

51. As will be explained in 2/L, these plans were recycled from the design of the hospital for Africans in Elisabethville.

52. Ibid.

Image 4 . *Lazaret "Fleur de la Reine"*

In the *Fleur de la Reine*, the   extension of the old hospital Lazaret built during the 1910s, the idea of outdoor shelters was already executed. Despite these precedents and the recommendations of high-ranking colonial doctors, such shelters would only be constructed in the *Hôpital de Léo-Est* by the 1950s. *ca.* 1914, MRAC, P. Tits (mission J. Maes), AP.0.0.16310.
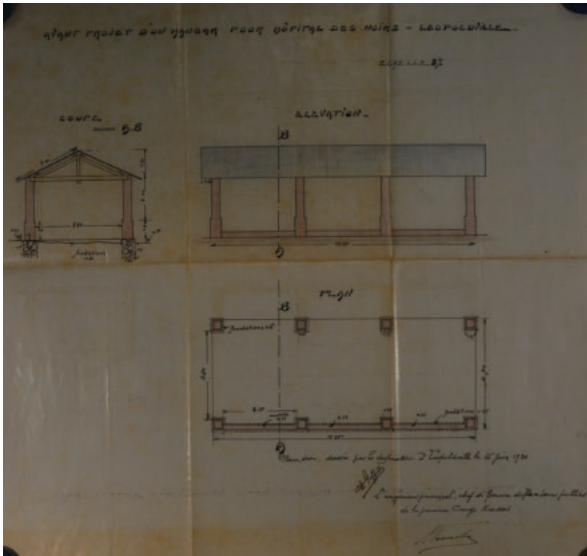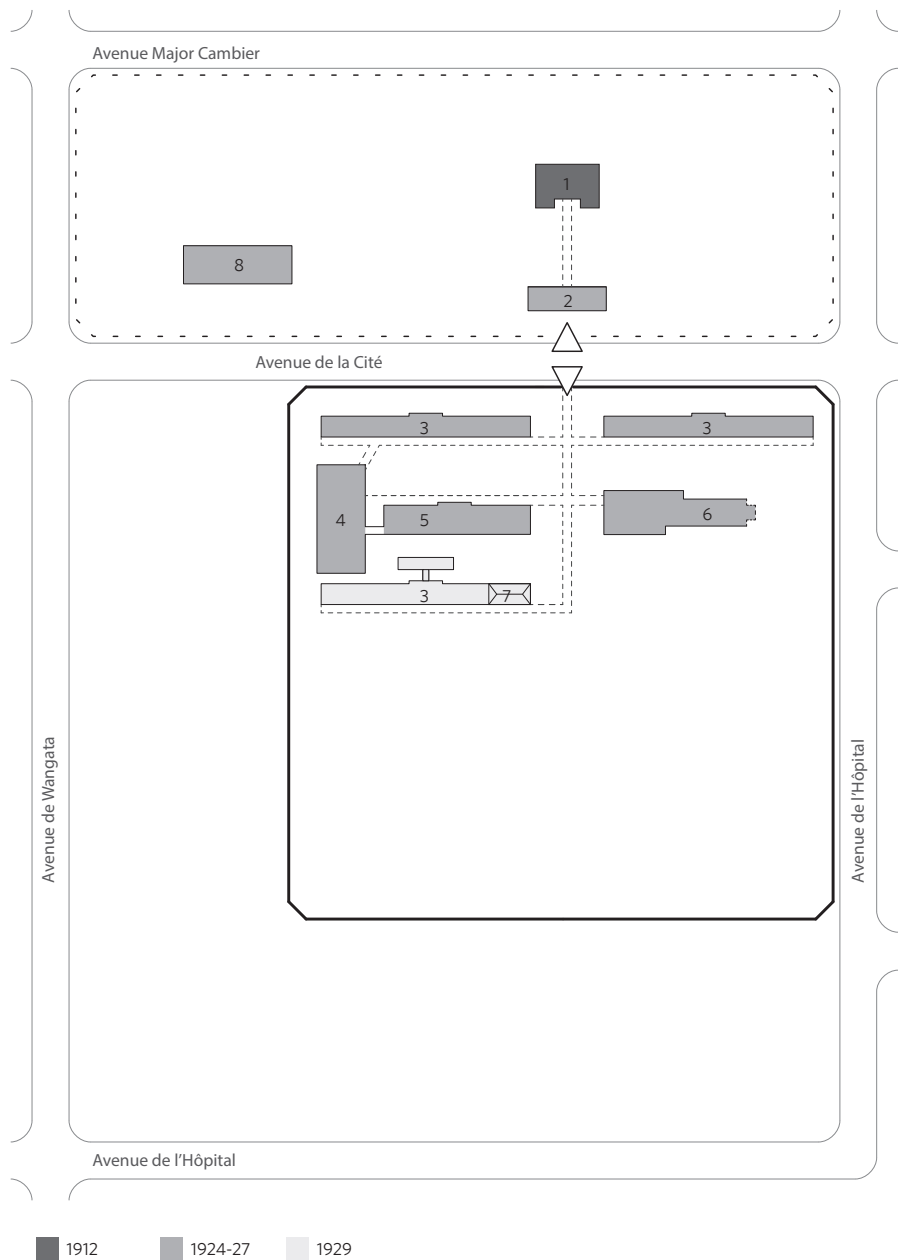

Image 5 . *Avant projet d'un hangar pour Hôpital des Noirs*
1920. AA/GG 14927.

Image 6 . Chronological development of *Hôpital des Noirs de Léo-Est*: 1924-1930

The hospital management constantly shifted patients and functions from pavilion to pavilion. Indicated functions are merely at moment of inauguration of a particular pavilion: 1. Old dispensary / 2. Administration / 3. *Pavillon de 72 lits* / 4 Surgery / 5. *Femmes et enfants* / 6. Refectory & Laundry / 7. Night guard post / 8. Convent.

Drawing by author, based on several plans spread across various archival dossiers, see: AA/GG 14730; 14927; 16807; 16336; AA/3DG 1140; 1483; ARNACO/GG 108; 146; 173.

A turbulent first decade

With a booming African population, the *Hôpital des Noirs de Léo-Est* faced an ever-pressing shortage of space during the 1920s. In response, the authorities expanded the hospital multiple times, resulting in a chronological patchwork of additions, extensions and adjustments (Image 6). Still, perhaps more than in any other hospital in the colony, the design and execution remained faithful to the tenets of the pavilion typology. In 1924, when the hospital opened its doors, it consisted of two sections separated by the *Avenue de la Cité*. The northern part was comprised of the old dispensary, a new administrative pavilion, and later the radiology service.[53] The veranda of the administrative building was strategically positioned and allowed the *Médecin-Directeur* to overlook from his cabinet the only entrance to the walled part of the hospital complex across the street. This walled, southern part contained the logistical pavilion with the *buanderie*, kitchen and refectory, and three wards for African patients. The two largest wards were identical and comprised of the double dormitories of thirty six beds each, which were officially destined for patients with distinct pathologies and connected by an open yet covered central corridor. The local administration not only adapted the hallway to the local climate: as a 'couloir-abri' without sidewalls, the local engineers working for the provincial doctor avoided the problems of 'peu d'éclairage et le plus d'humidité.'[54] Both large pavilions were for men, and with only a smaller ward for 'femmes et enfants,' these three pavilions clearly reflected the early colonial labor politics with its emphasis on seasonal male *main d'oeuvre*.

With the new hospital also came novel administrative procedures in Léopoldville. Whereas *Médecins-Directeurs* of other hospitals always operated as jacks-of-all-trade, performing examinations, diagnosis, operations as well as administrative functions, the head of the new *Hôpital des Noirs de Léo-Est* was increasingly exempted from his medical tasks, especially as the hospital continued to expand. Aided by a *gestionnaire administratif,* specifically recruited to oversee the hospital's administration, the *Médecin-Directeur* fulfilled the role of a manager. He mainly oversaw the other European doctors, charged with all things medical, and the eight religious sisters of the Leuven-based order of the *Chanoinessees Missionnaires de Saint-Augustin*. As nurses, they were each responsible of a particular pavilion and not only oversaw a corps of around thirty African members – comprised of 'un infirmier diplômé, des aides-infirmiers, des aides-accoucheuses, des boys de

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53. This avenue was important in the conceptualization of Léopoldville as a segregated colonial city: it allowed the authorities to portray the radiology pavilion – frequented by both Europeans and Africans – as separate from the *Hôpital des Noirs*. In the article of L'Assistance Hospitalière (1934), for instance, the radiology pavilion was discussed in a distinct section, and not under the section of the *Hôpital des Noirs*.

54. AA/GG 15899, Note from *Médecin-Provincial* Dr. Repetto, 13 September, 1928. He explicitly referred to his engineers, stating that 'Les ingénieurs affirment qu'avec une bonne construction on peut parer à ces inconvénients.'
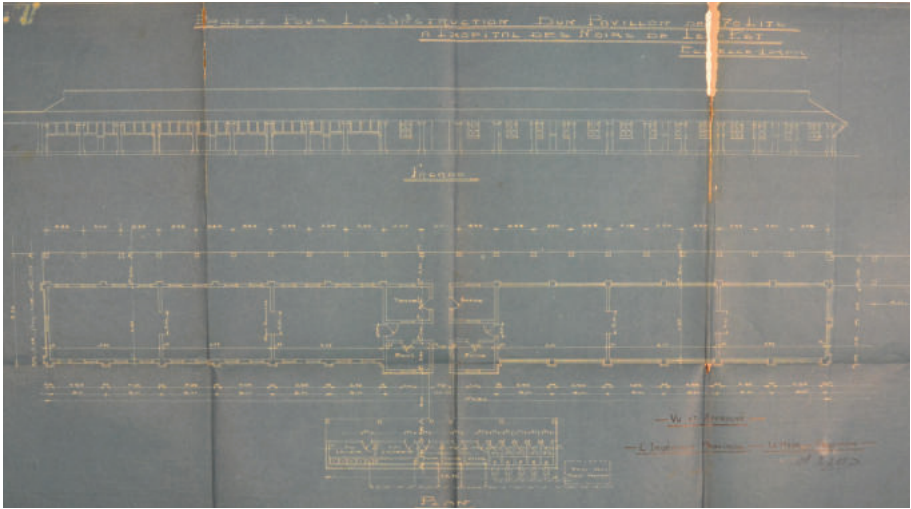
Image 7 . *Projet pour la construction d'un pavillon de 70 lits à l'Hôpital des Noirs de Léo-Est,* 1928

The pavilion design clearly echoed the idealized Nightingale-ward of the pavilion typology, with a central infirmary overlooking dormitories. At the same time, these pavilion plans were easy to copy and construct, allowing the quick and flexible extension and adaptation of the ever exapanding hospital complex.

 AA/GG 14927.

Image 8 . Pavilion with observation room for night guard
L'Assistance Hospitalière, 1934, p. 13.

salles' – but also the African patients.[55] These nurses likely functioned as colonial 'middle figures,' somewhat positioned between European doctors and the African population, since their knowledge of Congolese languages allowed closer contact with African personnel and patients, yet their function as nurse also meant they had to closely monitor and control African patients and staff.[56] The hospital was designed to facilitate such supervision. Strategically situated in the center of the pavilion, the position of the infirmary allowed control over the entrance to the two dormitories and thus facilitated the registration of the exact illness, employment and origin of every African patient entering. As such, the hospital's architecture enabled improved control, cataloguing and care of African patients simultaneously, and was clearly influenced by the government's broader ambition to establish biopolitics through medical infrastructure.

Still, the high end of biopolitics was not the only reason why the hospital consisted of separate, single-story pavilions. As the later additions to the complex show, its architecture also served much more mundane purposes, as it quite simply offered a very flexible building typology that demanded little time, money or technical know-how to design and erect. During the interbellum, the urban administration of Léopoldville launched several tenders for the construction of multiple new pavilions. On the one hand, these subsequent expansions did reconfirm the hospital's biopolitical aims of control and cure through its architectural typology: separate, well-ventilated pavilions were added, connected by a central corridor and controlled by a heightened observation room for the night guard – as proposed by the religious order. On the other hand, however, both the corridor and the added pavilions were practically adjusted to the possibilities and limits of constructing in a financially-plagued colony. Consisting of simple brick columns and corrugated iron roofing, the corridor was cheap and easy to execute. So were the new wards. As exact copies or smaller versions of the already existing hospital pavilions, their plans demanded minimal design effort from the local technical staff, and as mainly single-story buildings made up of bricks, wooden beams and corrugated plates, their construction didn't require skilled labor, which was in short supply in Léopoldville at the time. Other pavilions were added during and after the war, too, and while these were of a somewhat different design, they remained simple and relatively cheap constructions which still adhered to the principles of the pavilion typology.[57]

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55. This was around 1930 – of course these numbers constantly changed over time. See L'Assistance Hospitalière (1934, p. 15).

56. Hunt (1999, p. 2).

57. It was only in 1957, when the capital's construction sector was booming and became increasingly professionalized, that the colonial authorities somewhat broke with these logics, by adding two larger buildings on the south of the complex. These new buildings, with internal, well-orchestrated circulation slopes, sculptural brise-soleil and protruding brutalist balconies, materialized an important urban gesture by marking the hospital's new, more monumental entrance and its new dispensary that were now reoriented towards the cité indigène. At the same time however, this also limited the flow of African patients passing by the European residences, as will be explained in the MEDIUM scale.

Political objectives of control and care conveniently corresponded with more mundane concerns about budget and technical execution, and had led to a rather straightforward pavilion typology design that materialized a 'machine à guérir' within the technical possibilities of the colony. The everyday reality in the hospital, however, often contrasted with the core principles of a curing machine. Many of the issues the hospital management had to deal with, were tied to the ever-growing number of African laborers arriving in the city.[58] More and more beds were needed, and the pavilion typology offered a flexible solution to respond to the steady rise of patients frequenting the hospital. Because the simple pavilions were very similar, the hospital management could quickly adjust the function of each ward when needed. At the same time however, the perks of flexible pavilions also had a downside and posed sanitary problems. For each pavilion, the original design of the hospital foresaw a strict compartmentalization according to race, sex, social class, and pathology. In reality, however, these categories were far from stable and their relative numbers were constantly changing. This often forced the hospital management to make the best of the limited space available, shifting patients around and pragmatically mixing groups within wards.

Problems already started with the housing for the eight sisters. The religious order had demanded to deliver the design for the convent themselves, and fearing that the order would otherwise withdraw from the contract, the colonial authorities complied with this request. However, the design took much longer than expected. Only by mid-1924, the architectural plans reached the colonial government, and construction of the convent had still not begun by the time the hospital opened its doors. Making do, the local authorities proposed to the *Mère Supérieure* to 'installer provisoirement les Révérendes Soeurs appelées à desservir cet hôpital dans un pavillon de malades déjà construit.'[59] For over three years, the nursing sisters would be lodged in the pavilion of the women and children. The fallout of this temporary solution was far worse than expected, since according to the *Médecin Provincial*, it gravely affected the health and productivity of the sisters:[60]

> *'Le pavillon occupé par les Sœurs se trouve au milieu de l'hôpital de façon que ces religieuses doivent vivre presque en commun avec les noirs. La grande morbidité des Sœurs en 1925 ainsi que le nombre de journées de travail perdues doivent être attribues* [sic.] *à l'habitation.'*

The religious order's direction in Leuven, more concerned about the health of the nurses than the African patients, was especially worried about this morbidity. They filed several complaints to the Ministry of Colonies saying that 'les religieuses qui desservent l'hôpital des noirs de Léopoldville-Est sont toujours logées dans un

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58. In 1930, an average of 238 patients per day were hospitalized, and the dispensary received an additional 5000 out-patients per year. See L'Assistance Hospitalière (1934).

59. KADOC BE/942855/1696, Letter from *Gouverneur Provincial* to the *Mère Supérieure*, 7 March, 1924.

60. AA/RACCB 963, *Avis et considérations du Gouverneur* [Provincial] *sur le rapport annuel pour 1925 du service médical de la province du Congo Kasai*, 1925.

Image 9 . *Hôpital des Noirs - Vue générale*

In the front the old dispensary and administrative building overlooking the main entrance of the walled part of the hospital (not on photograph, but see Images 18 & 22). In the back the later realized convent, with a design reminiscent of other religious early-colonial buildings. *ca.* 1928, MRAC, Office Coloniale, AP.0.1.3416.

des pavillons de cet hôpital, où elles sont fort à l'étroit.'[61] It was only after the direction's repeated lobbying that the construction of the convent finally started late-1926. The convent's design was characterized by its sober yet distinct color shades of red and ochre masonry, a solid colonnade of brick round arches marking the verandas on both floors, and the typical double gabled roof for ventilation. As such, its architecture clearly corresponded with other early-colonial religious architectures 'd'inspiration [...] style basilical romain' yet with 'des modifications mineures imposées par le climat, la trop forte lumière et la précarité des moyens financiers.'[62] By imposing their own design, the religious order directly impacted the architecture of the hospital complex. They imported a religious stylistic tradition that severely differed from the very functional surrounding hospital buildings, and visually marked their local importance and the broader catholic mission of conversion they represented.[63]

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61. KADOC BE/942855/1696, Letter from *mère supérieur* to Minister of Colonies, 23 October, 1926.

62. Mantuba-Ngoma (2007, p. 107). On (the politics of) religious architecture in Belgian Congo, see e.g.: Cleys (2019); De Meulder (1998); Lagae (2012b).

63. The religious order also proposed the construction of the first-story observation room for the night guard. Although the sisters were likely in favor of an easily controllable hospital, the history of the convent suggests they may have also had different agendas when proposing this 'appartement, destiné aux deux religieuses de garde la nuit à l'intérieur de l'hôpital.' The new apartment was quite a luxurious improvement – before, the *gardes de nuit* were sleeping in a room in one of the wards – and meant the nurses avoided contact with the African patients. AA/RACCB 1046/B, *Hôpital des Noirs de Léo-Est - Rapport Annuel,* 1930.

As long as the convent wasn't built, however, the hospital had to do without a pavilion for women and children, since it was occupied by the nurses. The timing could not have been worse. From the mid-1920s onwards, the new *politique de stabilisation* was leading to a steep increase in the number of African women and children. As a temporary solution, the hospital management was forced to accommodate the female patients in male rooms. This intermingling of sexes also meant that a proper pathological separation was no longer possible. Meanwhile, rising numbers of surgical patients and epidemic outbreaks of tuberculosis and smallpox caused the dormitories destined for these diseases to be overcrowded, again forcing the *Médecin-Directeur* to shift patients to other wards and filling the rooms to the brink with additional beds.[64] At a certain point, the authorities saw no other solution than to refuse applications, or move patients with simple, non-infectious injuries or wounds to the dilapidating *Hôpital de la Rive*, which was officially exclusively reserved for patients with highly infectious diseases.[65]

These overcrowded wards exposed another problem in the hospital design: once again, dimensions per patient were substandard according to Western measures. The latest spatial guidelines published by the Belgian *Conseil Supérieur d'Hygiène Publique*, stipulated a minimum of 9 m² and 30 m³ per patient, and while the *Conseil* still advised the pavilion typology, the allowed amount of patients per ward, however, seriously diminished, with now only a maximum of six to eight beds per dormitory. Despite the crucial economic role the Ministry of Colonies attributed to healthcare during the interbellum, these criteria weren't considered financially feasible, nor were they deemed practically necessary for African patients, who were thought to prefer a hotter interior. With 70 patients per ward, the design offered about 5,5 m² and 25 m³ per patient, and completely failed to meet Western standards. The ward dimensions again reveal how local medical officers and planners conveniently deployed so-called racial differences to justify downgrading Western standards of hospital planning to a colonized society. That African bodies – although allegedly adapted to the tropical climate – nonetheless suffered from these conditions is likely, and seems to be confirmed by an old, and rather faded photograph the local *Médecin Provincial* sent to the central *Médecin en Chef* to add to the often technical annual medical reports.[66] The image

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64. 'Il y a eu des moment où on a dû mettre dans une chambre de 12 jusque 21 lits, tellement grand était le nombre de malades qui devraient être hospitalisés'. AA/RACCB 963, *Avis et considérations du Gouverneur* [Provincial] *sur le rapport annuel pour 1925 du service médical de la province du Congo Kasai*, 1925.

65. 'Il y a actuellement deux pavillons de 72 lits; le troisième celui destiné aux femmes et aux enfants est toujours occupé par les religieuses ce qui fait perdre 40 lits. Le nombre de lits dont on dispose actuellement est insuffisant et toutes les places sont presque toujours occupées de façon qu'on doit envoyer continuellement des malades même non infectieux à Léo-Ouest ou bien refuser l'hospitalisation.' Ibid.

66. AA/RACCB 963, Letter from *Médecin Provincial* to *Médecin en Chef*, 5 July, 1926. The *Médecin Provincial* sent 'quelques photos, que, si vous le jugez utile, vous pourrez éventuellement annexer au rapport annuel de la Province du Congo-Kasai.' The official version of the annual report, however, did not include these images. This could have been because of pragmatical reasons – copying images was more costly – but also because the authorities wanted to avoid undermining Belgian Congo's improving international reputation by disclosing rather explicit photographs that revealed the actual, messy reality of the colony's largest hospital.

Image 10 . Hospital veranda
The overcrowded and overheated wards may have led patients to prefer the outside
verandas as a place to rest and cool down.
AA/RACCB 963, 1926.

reveals quite a number of African patients leaning against the brick pillars of
the hospital's verandas and hallways, likely taking a breather from the interior's
heat and enjoying the outdoor breeze. The photo also depict religious nurses
interacting with these resting patients. This suggests that although these practices
did not align with the principles of a 'machine à guérir,' in which corridors were
crucial logistic connections between the various pavilions, the sisters may have
acknowledged that the interior heat was at times too much to bare, condoning
the patients sitting outside.[67]

Overcrowding wasn't the only problem that plagued the complex. Due to budget
cuts and a lack of technically skilled construction workers, the hospital buildings
showed many flaws. Already six months after the hospital's inauguration, the
Gouverneur Provincial complained:[68]

> *A l'hôpital des noirs, le médecin m'a signalé que les travaux en cours depuis plus d'un
> an sont suspendus depuis plusieurs mois. La salle d'opération est inachevée; les deux
> autoclaves attendent, inutilisées, d'être placées; on n'a pas blanchi l'annexe construite
> à cette salle. La chapelle dont les fondations sont faites n'est pas continuée. La porte*

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67. As the hospital regulation does not mention this, it is unclear if the same fears for the storage of goods and
produce by African patients again factored in here, perhaps causing the hospital management to compel patients
to stay in the veranda during daytime as they had done in the *Hôpital de la Rive*.

68. AA/GG 22451, Note from *Gouverneur Provincial* to *Commissaire de District*, 25 February, 1925.

d'un pavillon attend depuis deux mois d'être placée; il n'y a qu'une charnière à poser. Les W.C. ne fonctionnent qu'imparfaitement. Un auvent de la salle de visite doit être remplacé, etc. etc. Tous ces travaux ont été maintes fois demandés au Services des Travaux Publics par le Médecin; on promet, mais on ne tient rien.

In the following years, local officials and the *Médecin-Directeur* became only more exasperated with the hospital's many defects: the 'autoclave' used to disinfect dirty clothing, sheets and bandages did not work, the kitchen was finished in cement rather than in easily cleanable tiling and much of the roofing was leaking.[69] They complained to the central government on numerous occasions, and applied in vain for extra funding to the *Services des Travaux Publics*. With numerous infrastructural works planned or under construction across the territory, however, these central services refused or failed to attribute money or manpower to these relatively small chores at the hospital for Africans.[70]

Without the help of the central government or the Public Works Department, the local medical staff had to make the best of the situation, but this often meant abandoning the sanitary principles of a 'machine à guérir.' Without a working *autoclave*, the staff improvised, boiling water in the kitchen to disinfect the most important surgical tools. Without working lavatories, bedridden patients went to the toilet in 'des seaux mis à leur disposition dans le petit couloir,' while able patients simply went in the gardens in the back of the hospital site.[71] While this situation was far from hygienic, it was perhaps the most feasible considering the circumstances. Nevertheless, it did receive ample criticism from the central authorities, who, ironically, had repeatedly refused to provide the local management with funding to fix the toilets. After inspection in 1927, Dr. Mouchet, Boma's *Médecin en Chef-Adjoint*, blamed not only the African patients for not properly using the toilets but especially the hospital management, writing the unhygienic situation at the complex 'montre un manque de surveillance.'[72]

The 1920s was a decade of turbulence in the *Hôpital des Noirs de Léo-Est*. In a colony that was increasingly industrializing, with shifting labor politics and steep surges in urban migration, ensuring the capital with a healthy *main d'oeuvre* through healthcare infrastructure was not at all an easy task. Even if the overall design of the hospital, and the increasingly professionalized administrative procedures

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69. AA/GG 7325, Letter from *Médecin en Chef* Dr. Trolli to *Gouverneur Général*, 20 November, 1931.

70. The central government would often conveniently use stringent bureaucratic procedures to refuse such demands, revealing how a rigorous colonial machinery could have far-reaching effects for the reality of hospital infrastructure on the ground. When Léopoldville's officials applied for funding to fix the hospital's toilets, for instance, the *Gouverneur Général* replied that 'le Département n'autorise pas l'engagement de dépenses […] avant d'avoir établi ce dernier sous sa forme définitive et avant de l'avoir présenté devant les Chambres. Il n'est donc pas possible d'autoriser la construction immédiate de nouvelles fosses septiques à l'hôpital des Noirs à Léo-Est.' AA/GG 7325, Letter from *Gouverneur Provincial* to *Gouverneur Général*, 22 November, 1928; AA/GG 7325, Letter from *Gouverneur Général* to *Gouverneur Provincial*, 27 December, 1928.

71. AA/GG 911, *Rapport d'inspection, Médecin en Chef-Adjoint, Dr. Mouchet,* 15 May 1927.

72. Looming behind this remark was of course the widespread belief among Europeans that Africans were naturally incompetent for maintaining hygiene. Ibid.

it facilitated, implemented an increasingly successful biopolitical regime, not everything went according to plan. The *Médecin en Chef* blamed the unhygienic nature of African patients and the local management for the hospital's defects. Coping with a lack of funding and the hospital's poor architectural realization, the hospital staff indeed condoned practices that were neither hygienic nor medically sound, but which probably made the best of the situation and ensured that the hospital kept functioning. When they applied for help, the central government and the Public Works Department felt there were more urgent matters to attend to, and when push came to shove during this decade of extractive politics, the central government still implicitly prioritized other policy domains over African health. While the official policy of the Minister of Colonies clearly underlined healthcare for Africans, various branches of the colonial government in Congo had conflicting opinions. As the largest hospital of the colony, the *Hôpital des Noirs de Léo-Est* provoked and sharpened these contrasting views, and confirmed that even when it came down to a policy domain as crucial as healthcare, the colonial administration was not only far from monolithic, but also that this had far-ranging effects on local healthcare services.

Avenue Major Cambier

Avenue de la Cité

Avenue de Wangata

Avenue de l'Hôpital

Avenue de l'Hôpital

■ 1930-32   ■ 1937-39
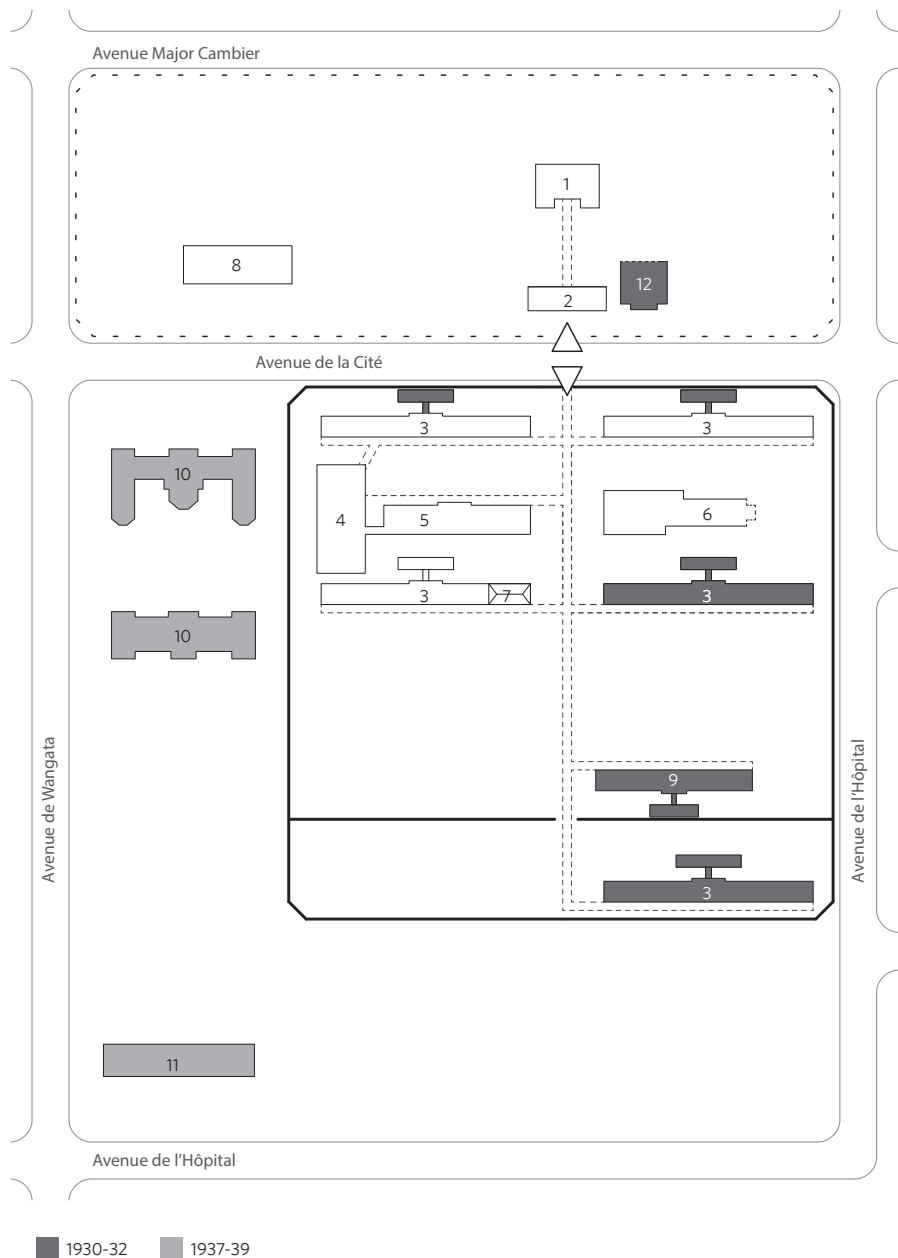
Image 11 . Chronological development of *Hôpital des Noirs de Léo-Est*: 1930-1940

The hospital management constantly shifted patients and functions from pavilion to pavilion. Indicated functions are merely at moment of inauguration of a particular pavilion: 1. Old dispensary / 2. Administration / 3. *Pavillon de 72 lits* / 4 Surgery / 5. *Femmes et enfants* / 6. Refectory & Laundry / 7. Night guard post / 8. Convent / 9. Maternity / 10. Laboratory / 11. Assistant school / 12. Radiology.

Drawing by author, based on several plans (see above for references).

The crisis as opportunity

Surprisingly, it was the Wall Street crisis, plunging Belgian Congo's economy into a deep recession, that improved the situation of the hospital in the 1930s. The colony's mining industry suffered from the falling global demands for raw resources, and with it, other economic sectors quickly collapsed. Less and less resources and goods had to be transported in and out of the colony, and as the most important transport hub of Belgian Congo, the capital was severely struck. The number of jobs in the city took a steep fall, and with these dwindling employment possibilities, many Africans decided – or were forced – to leave Léopoldville and return to their village of origin. From 1930 to 1935, Léopoldville's African population almost halved, and a notably lesser number of patients signed in at the hospital.[73] Meanwhile, the tenders for the several new pavilions – launched at a time when the complex was still overcrowded – had been executed, the toilets and sewer system had been repaired, and new personnel had arrived. The hospital's capacity finally improved, and at a time when the African demand for healthcare services was waning, many of the problems of the turbulent 1920s seemed to come to a halt.

The crisis also offered unforeseen opportunities for the nuns of Saint-Augustin, who gladly took advantage of the emptying wards to fulfill their primary vocation: conquering African souls. The request from the representative of the order to install a chapel in the hospital reveals how hospitals indeed functioned as important and deliberate centers of a covetous mass conversion:[74]

> *J'ai l'honneur de vous demander de bien vouloir aménager un local de l'hôpital des Noirs en chapelle pour que nous puissions assurer un service régulier. L'année passée, 1930, trois mille malades ont été hospitalisés et les chrétiens furent privés de consolations de la religion faute de local approprié. En plus l'hôpital nous procure l'occasion de ramener beaucoup de malades à des meilleurs sentiments, mais il y faudrait une chapelle pour les réhabituer à l'exercice de la religion avant leur sortie de l'hôpital.*

While this demand first met with doubt from the colonial government, who feared that other religions would soon follow suit and file in similar requests, the catholic nuns of Saint-Augustin were eventually privileged and a chapel for African patients was installed. The maternity care at the hospital also improved. Reflecting broader seasonal labor policies, women and children had not been considered a priority by the nuns during the early 1920s. Yet as 'interwar metropolitan hysteria about depopulation spilled over into Belgium's colonial field,' maternity care became increasingly important, and the *Hôpital des Noirs de*

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73. According to Whyms (n.d.), the number of African inhabitants fell from 43 322 to 23 891 between 1930 and 1935.

74. AA/GG 14927, Letter from *Le supérieur de la Mission* L. De Clercq to *Gouverneur Provincial*, 25 September 1931.
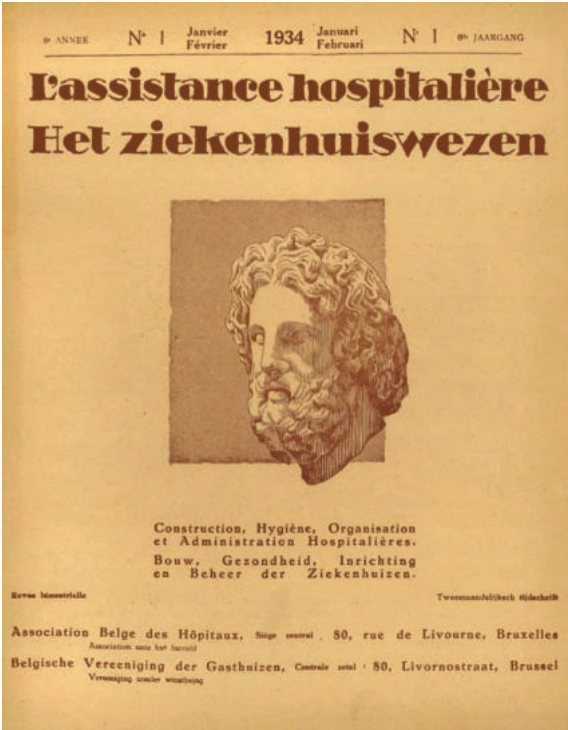
Image 12 . Cover *L'Assistance Hospitalière*

Image 13 . Postcard of Queen Elisabeth's visit to Léopoldville's hospital infrastructure
ca. 1930, http://kosubaawate.blogspot.com/2012/11/ [accessed: 11 February, 2020].

Léo-Est was no exception.[75] By the end of the 1920s, a new maternity pavilion was constructed, which was co-funded by the *Oeuvre de protection de l'enfance noire*, a parastatal organization supported by the royal dynasty. When Queen Elisabeth's visited the capital's medical infrastructure in 1928, she admired 'l'ensemble des bâtiments' and the sisters' 'dévouement et labeur.'[76] Her particular attention to the hospital's maternity, however, reflected a broader interest of the Belgian female bourgeoisie for Congolese maternity care.[77] Madeleine Ryckmans, for instance, wife of the later *Gouverneur Général* Pierre Ryckmans, also visited the maternity of the hospital a few years later, which was, just as Queen Elisabeth's visit, extensively covered by local media.[78]

The hospital not only received media attention through visits from prominent personalities, but also was portrayed in itself as an exemplary institution. In 1934, an influential journal on hospital planning and management in Belgium, *l'Assistance Hospitalière*, published an 18-page-long article on medical infrastructure in the new colonial capital, in which the *Hôpital des Noirs de Léo-Est* of course received ample coverage.[79] As an 'étude communiquée par la Direction du Service de l'Hygiène du Ministère des Colonies,' the article functioned much like a mouthpiece of the colonial government who again deployed an imagery of 'modern' healthcare infrastructure to convince the world of its *mission civilatrice*:[80]

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75. Hunt (1999, pp. 243-244).

76. Whyms (n.d., pp. 894-895)

77. That the *Oeuvre de protection de l'enfance noire* was founded by a Félicie Dubois, a member of the Brussels industrial upper class, illustrates how women of the Belgian bourgoisie played an important role in extending maternity care in Belgian Congo. For the a more minute analysis of the gendered aspects of colonial maternity care, which falls outside my scope, see Hunt (1999, pp. 237-280).

78. Whyms (n.d., p. 1397).

79. This bimonthly journal appeared from 1929 until 1935 and featured extensive articles – often with plans, sections and photographs – of the best practices of hospital construction in Belgium and beyond. The journal was published by the *Association belge des Hôpitaux*, a national organization founded in 1921 to collect, spread and develop knowledge on hospital design and management. As such, the journal was on the one hand closely tied to the *Conseil Supérieur d'Hygiène*, the state organ that controlled whether hospital standards in Belgium were properly observed by architects, and on the other hand to the *Association Internationale des Hôpitaux*, a global organization that united multiple national hospital federations, including that of Belgium. Moreover, before extensively covering the hospital infrastructure in the colonial capital, the journal had already featured articles on colonial hospitals in the Congolese towns of Panda-Likasi (Bertrand, 1932) and Niemba (Wijdooghe, 1932). It was also part of the contemporary library collection at the Ministry of Colonies, and may have functioned as an important additional source of information concerning hospital planning for the Brussels-based Public Works Department. On the *Conseil Supérieur d'Hygiène*, see Bruyneel (2009). I will cover knowledge exchange on hospital construction and the role of the *Association belge des Hôpitaux* in more detail under 2/A and 3/A.

80. L'Assistance Hospitalière (1934, p. 3). To convey this image of a 'modern' hospital architecture, the article clearly stressed control over the patients, noting for instance the two-story high observation parvilion for the 'garde de la nuit.' At the same time, a focus throughout the article on technical details regarding the piping and sewerage, smooth finishes and high-tech medical equipment, reveals the aim to convey an image of a well-oiled 'machine à guérir.' That in decade before, the hospital had faced numerous problems that contrasted with this imagery, was of course conveniently omitted.

> *Le Gouvernement du Congo Belge, conscient de l'importance que présente l'état sanitaire de la population européenne et indigène de sa jeune et belle Capitale, y a construit, ces dernières années, des installations hospitalières vastes et modernes qui supportent avantageusement la comparaison avec les formations hospitalières des colonies voisines.*

A similar message appeared in other publications as well. Belgian journalist Whyms, for instance, lauded the hospital's state of 1938, writing that it was thanks to this spotlessly clean healthcare infrastructure that she was now convinced 'que la colonisation belge est moralisatrice autant que civilisatrice.' She continued to describe the hospital:[81]

> *La propreté qui règne partout frappe de prime abord et aussi l'absence totale de cette odeur d'iodoforme, de transpiration et de misère que l'on ne parvient pas à chasser de certains de nos hôpitaux d'Europe. […] Dans la section de chirurgie pour indigènes mâles, quelle propreté, quel confort. Il est nombre de nos hôpitaux provinciaux belges qui ne sont pas aussi bien outillés.*

Even if highly mediated, it appears that these descriptions in *L'Assitance Hospitalière* or from Whyms were more truthful than the blunt propaganda that had been published during the Leopoldian era: the steep decline of complaints of the local management about the hospital's situation in the archives does suggest that after the economic crisis, the hospital had indeed become a fairly well-functioning colonial healthcare institution.

Two important new additions to the complex further underlined the improved status of the hospital with architectural grandeur. Firstly, at the end of the 1920s, the government decided to construct a new, more modern medical laboratory adjoined to the hospital. Right from the start, the ambitions were clear: the laboratory had to become 'le plus complet des laboratoires de l'Afrique tropicale' and a 'digne pendant de l'Institut de Médecine Tropicale d'Anvers.'[82] As such, the institute needed to display 'une recherche architecturale,' which was realized through a 'disposition symétrique d'un bâtiment qui comporte des ailes latérales également importantes et un corps central.'[83] After completion in 1937, this stripped-down, tropicalized rendition of the *Beaux-Arts* design tradition was exemplary of the emerging 'langage architectural classique et dépouillé' that was resulting from a broader search during the interbellum for an appropriate architectural style to materialize Belgian state presence in the Colony.[84]

81. See *Chronique de Léopoldville de 1881 à 1956*, p. 1403-1404.

82. AA/3DG 1331, *Note au sujet des plans du nouveau laboratoire médical de Léopoldville*, 13 December, 1934.

83. AA/3DG 1331, Letter from *Commissaire de District* Maquet to *Gouverneur Général*, 17 August, 1935.

84. Lagae (2007, p. 85).

Image 14 . Façade of the new *Institut de Recherches Médicales,* 1948
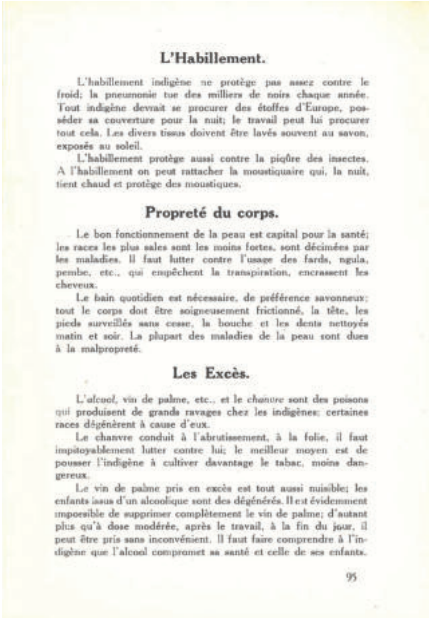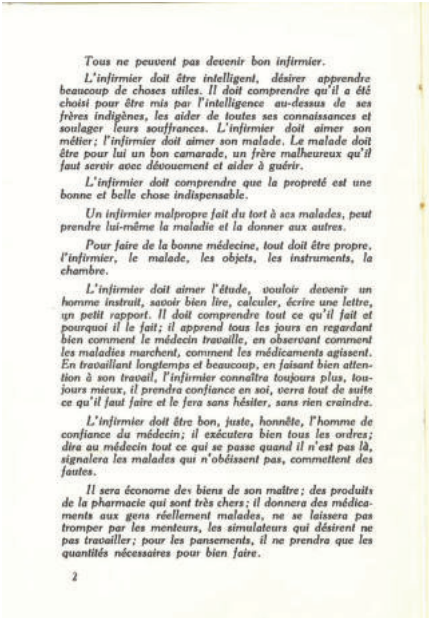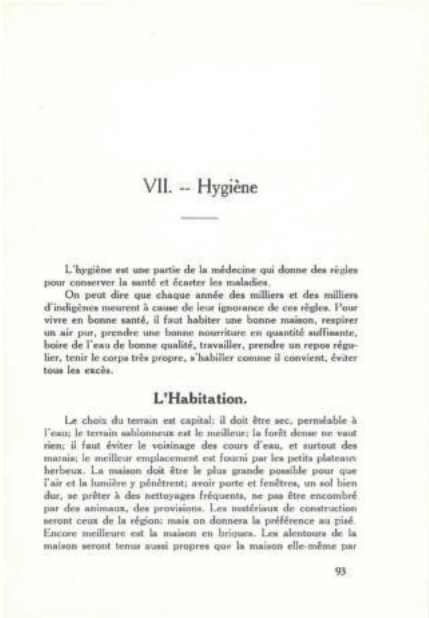
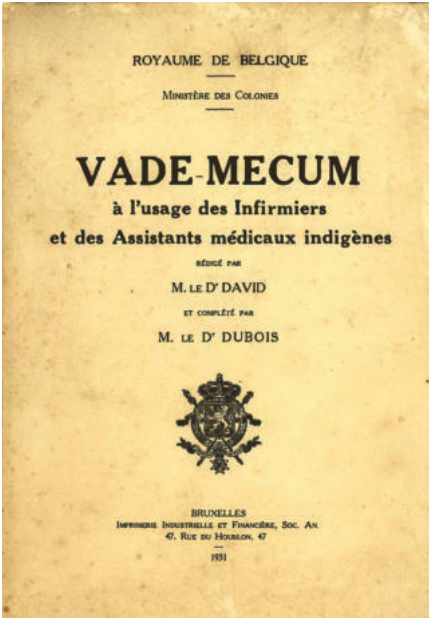Whyms (n.d.), p. 1873-1.
AA/3DG 1637.
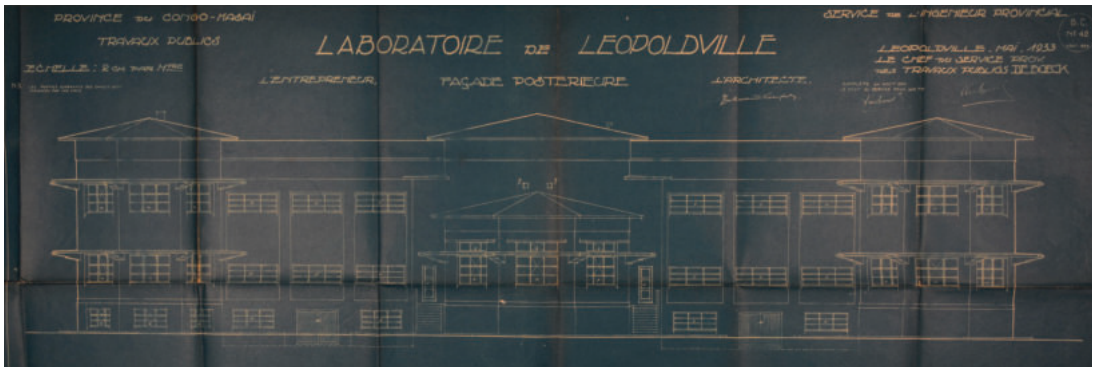
Image 15 . Handbook for medical assistants,

Stressing how the medical assistant 'a été choisi pour être mis par l'intelligence au-dessus de ses frères indigènes' who still used allegedly unsanitary and immoral practices in their 'habitation,' 'propreté du corps' or excessive abuse of alcohol, the *vade-mecum* clearly molded the pupils into a new medical elite.

Dubois, 1931.

Next to the laboratory, a new school for Congolese medical assistants was planned. Especially in a colony who's educational dictum ran 'sans élite, sans ennui,' the training provided in these schools was remarkably high.[85] As authors such as Nancy Hunt and others have argued, these assistants took on the role of colonial 'middle figures.' As évolués, they were an important force in the creation of a new, creolized urban modernity that belonged to an emerging Congolese middle class. The appropriation of everyday 'imported elements' as 'markers of social class' was crucial in staking the boundaries of this new Congolese cultural elite, and these ranged from bicycles and sewing machines to the use of European medicines and maternity care. At the same time, this new elite also functioned as literal middle men, mediating between Europeans and African subaltern or 'lows' – to use Nancy Hunt's terminology, by which she emphasizes that the emergence of a Congolese elite also meant the creation of new asymmetries amongst Africans that the escaped classic colonial binary.[86]

As the earlier research from for instance Nancy Hunt suggests, medical spaces such as hospitals may have played a role as liminal spaces of social encounter between European ill bodies and able, educated Congolese assistants that may have challenged colonial order and empowered a rising African medical middle class. Unfortunately, archival traces confirming this peculiar role of hospital sites could not be found. Direct Congolese testimonies of such medical assistants have unfortunately not been found, and research leads that looked promising often failed to deliver. Educational manuals for assistants – we hoped – might have not only included medical information, but also instructions on etiquette towards European patients, personnel or African lower-ranked staff. The found *vade-mecum* revealed how colonial assistants were educated and molded into a new medical elite that were also to condemn the allegedly unsanitary practices of other Congolese.[87] Yet the manual was surprising silent on plausible social interactions that could occur between the assistants and other (European) actors within colonial hospitals. Even if the position of medical assistants in colonial hospitals has proven difficult to gage, the agency of religious nurses nonetheless offers some understanding of the key role other categories of middle figures may have played in colonial hospitals. They not only brokered between various African and European actors within the complex – in similar waysas African *assistants médicaux* likely did. They also shaped and added weight to the new everyday colonial things and practices such as soap, European hygiene and birth support that became important social symbols of the emerging class of évolués to which medical assistants belonged.[88]

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85. Dibwe dia Mwembu (2009, p. 70).
86. Hunt (1999, p. 8).
87. This was also the case in Elisabethville, as Sofie Boonen (2019, pp. 178-182) has shown.
88. Hunt (1999, 2016).

The design of this new *Ecole des Assistants Médicaux Indigène* and its boardinghouse was explicitly destined to materialize the social status of these African assistants as a medical elite. The school, on the one hand, straightforwardly expressed the same architectural aspirations as the laboratory. The symmetrically structured façade with central portico and abstract decorative friezes made of concrete clearly complemented the laboratory's sober, modernized classical style. Its design integrated the school within the larger architectural ensemble of the hospital, and through publications and postcards, the architecture of the ensemble slowly paved the way towards Belgian Congo's widespread reputation as a 'medical model colony.'

The residences for African pupils, on the other hand, was the object of a much more extensive debate. The first proposal was still rather modest in size and scope, and was heavily criticized by architect Schoentjes from the Brussels Public Works Department for its lack of 'largeur de vues.' According to him, their design 'fait assez piètre figure dans l'ensemble des installations, et il donnera l'impression d'avoir fait l'objet d'économies exagérées.'[89] Eventually, architect Lequy, one the central state architects of the Congolese Public Works Service, took over the project. His design acknowledged the critique of Schoentjes, and made sure the boarding houses projected an image appropriate to this emerging medical middle class. Whereas African inhabitants of the *cité indigène* were mostly left to their own when it came to building a dwelling, the housing for medical assistants, and especially that for 'assistants mariés' was relatively comfortable, spacious, and – of course – sanitary. Moreover, situated in the northern, European side of the neutral zone, the location of the Congolese *internat* was privileged within the colonial urban scheme.[90] At the same time, the design and proximity of the housing also allowed European officials and doctors a closer supervision of this feared emerging Congolese upper class that was held to increasingly high social standards of living.[91] As such, the location and architecture of the boardinghouse materialized the increasingly recognized, yet ambiguous position medical assistants occupied not only within the hospital, but within colonial society in general.

89. AA/3DG 1331, Letter from *Administrateur général des Colonies* to *Gouverneur Général*, 26 March, 1936.

90. See 2/M.

91. This foreshadowed the post-war policy where colonial officials were allowed to randomly perform private housing inspections of Congolese applying for the official recognition as évolué through a *carte d'immatriculation*, an invasive and often frustrating practice. See Gondola (2016, p. 209).

Image 16 . *Visite des formations médicales de Léopoldville.*
The royal visit of Prince Baudouin in 1947 to the school again confirms its strategic importance, both internally, a center of education for a medical elite, and externally, as a way of legitimizing colonial rule.
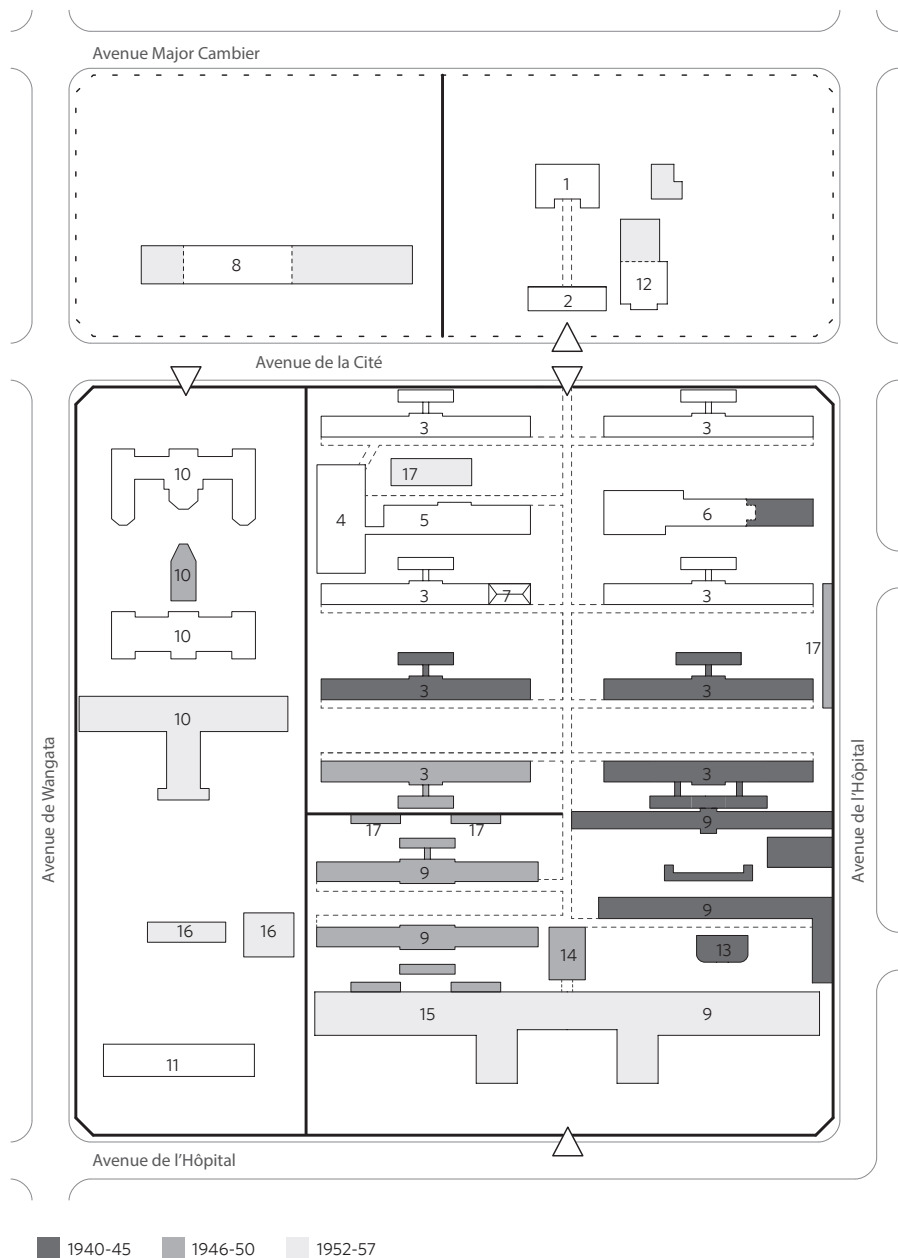1947, MRAC, A. Da Cruz (Inforcongo), HP.1956.15.2195.

Image 17 . *Habitation double pour Assistants Indigènes mariés.*
AA/GG 15790, 1936.

Image 18 . Chronological development of *Hôpital des Noirs de Léo-Est*: 1940-1960

The hospital management constantly shifted patients and functions from pavilion to pavilion. Indicated functions are merely at moment of inauguration of a particular pavilion: 1. Old dispensary / 2. Administration / 3. *Pavillon de 72 lits* / 4 Surgery / 5. *Femmes et enfants* / 6. Refectory & Laundry / 7. Night guard post / 8. Convent / 9. Maternity / 10. Laboratory / 11. Assistant school / 12. Radiology / 13. *Crèche* / 14. New dispensary / 15. Pediatrics / 16. Morgue / 17. *Cuisine indigène.*

Drawing by author., based on several plans (see above for references).

Traces of hybrid governance

The quiet years after the crisis quickly proved short-lived, as by 1940, the African population again reached the same numbers as a decade before, and continued to rise.[92] Meanwhile, the hospital's capacity had remained relatively the same, as no new wards had been added to the complex,. Slowly but surely, the hospital faced overcrowding again. The maternity, for instance, was built to provide space to 70 patients, yet by 1943, '80 lits y sont entassés plus 15 paillasses par terre. A certains jours cela ne suffit pas encore, et des enfants insuffisamment rétablis doivent être mis en sortie pour faire place à ceux qui entrent.'[93] This time, however, the colonial authorities reacted more quickly, adding several expansions during the war. The maternity services were extended with two new small pavilions and an additional day-care center for African orphans. Two new wards for male surgical patients were also under construction. These were exact copies of the existing pavilions, revealing again the pragmatic perks of the flexible pavilion typology, especially during this period where government budget and available manpower were exceptionally scarce. With the explosion of the African population during and after the war, however, these new additions were little more than a drop in the ocean.[94] Shortages of space meant patients had to hustle and elbow to secure a spot, and with this overcrowded central hospital, colonial officials started fearing for the colony's international reputation:[95]

> Tous les voyageurs qui visitent le Congo depuis plus de deux ans, nous répètent à satiété que l'hôpital des noirs de Léopoldville est trop petit, qu'il est surpeuplé et que de nombreux malades couchent sous les lits, déjà occupés, pour ne pas perdre leur droit à les occuper à leur tour à la première occasion.

The booming population of Léopoldville was not the only reason for the hospital's congestion, however. Several traces in the archive suggest that slowly but steadily, the management had again started allowing Congolese family members to cook and eat together with their relatives during visiting hours. Just as in the older *Hôpital de la Rive*, this may have been the result of a failing or too costly general kitchen service. Although reports suggest that in 1927, the 'cuisine à vapeur est excellente et en très bon fonctionnement, de même pour le réfectoire,'[96] by the 1930s, the kitchen and laundry service, housed in the same pavilion, 'ne donnent plus satisfaction. Le fait serait dû à des défauts d'installation et à la vétusté du matériel.'[97] Not only the kitchen equipment was failing, the 'puisard de la cuisine' was also broken and clogged, meaning that 'le liquide sort de celle-ci et se répand

92. According to Whyms (n.d.), by 1940, 43 585 Africans lived in the city.

93. AA/GG 7325, Letter from *Médecin-Directeur ad interim* to *Gouverneur Provincial*, 23 April, 1943.

94. According to Whyms (n.d.), from 1940 to 1950, the city's African population more than tripled in size.

95. AA/H 4472, Note from *Inspecteur Médical* Dr. Duren to *Administrateur Général des Colonies,* 17 January, 1950.

96. AA/GG 911, *Rapport d'inspection, Médecin en Chef-Adjoint, Dr. Mouchet,* 15 May 1927.

97. AA/GG 7325, Letter from *Gouverneur Général* to *Gouverneur Provincial*, 26 September, 1930.

sur la terre à l'air libre, ce qui constitue un danger au point de vue de l'hygiène.'[98] While by the publication of the article in *L'Assistance Hospitalière*, the situation had most likely been fixed,[99] the kitchen had been out of order for over three years. During this time, temporary improvised practices of patients taking care of their own meals with the help of visiting family members may very well have existed – although no literal mentions in the archive were found on this.

When the hospital became overcrowded again in the 1940s, these practices undoubtedly (re?)appeared – if they had ever been banned completely. This was likely because the kitchen service, with its limited staff and budget, could no longer keep up with the mounting numbers of patients to feed, who in addition also often disliked the European meals.[100] As such, most African patients still preferred visitors to bring along their familiar dishes and produce, and African women would often cook for the whole visiting family:[101]

> *L'hospitalisé indigène, n'appréciant pas, à tort ou à raison, la nourriture lui fournie par l'hôpital, est ravitaillé par sa famille, à grands renforts d'impedimenta aussi variés que peu hygiéniques. Trop souvent encore, l'on voit lorsqu'il s'agit d'une femme hospitalisée, le repas familial préparé par la «malade» est partagé par toute la famille, à l'hôpital même, à l'heure des visites.*

In the beginning, European doctors and nurses condemned these customs as unhygienic and disorderly – the entrance sign of Image 1 did suggest that visitors were in fact abundant, and that many often tried to linger within the confines of the complex even after visiting hours, much to the exasperation of the staff. Over time however, the hospital management reluctantly turned a blind eye to such practices, taking a pragmatic approach towards problems they were unable to tackle themselves because of limited resources. After the second world war, the hospital management even started facilitating these practices, reverting back to the construction of hangars which had already proven their worth in the *Hôpital de la Rive*, and which had been part of the hospital's original design. This time, however, these several 'auvents des cuisines indigènes,' were more extensive. Located both at the *maternité*, allowing African women to cook for their family, and at the side of the complex for all the other patients, the hospital management offered patients more than decent cooking facilities equipped with cemented pavements and 'des caniveaux pour l'évacuation des eaux usées.'[102]

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98. AA/GG 7325, Letter from *Médecin-Directeur* to *Ingénieur Provincial*, 2 December, 1930.

99. AA/GG 7325, Correspondence from *Médecin-Directeur* and *Médecin Provincial*, 17 February and 10 March, 1932.

100. In 1946, '19 infirmières religieuses, 40 infirmiers et infirmières indigènes et 38 boys' offered healthcare to an average of 739 patients. KADOC BE/942855/1696/276, *Ce qui se fait à l'hôpital de Kinshasa*, Report of 1946.

101. KADOC BE/942855/1696/139/2, *Rapport analytique concernant l'activité de l'hôpital des noirs à Léopoldville-Est pour l'année 1949.*

102. ARNACO/GG 108, Letter from *Gouverneur Provincial* to *Gouverneur Général*; Note from *Chef du Service Provincial des Travaux Publics,* 8 November, 1948. See Geenen and De Nys-Ketels (2021); Lyons (1994).

Throughout these four decades of the *Hôpital des Noirs de Léo-Est*, African patients and visitors shaped the everyday reality and the built environment of the complex, through persistent practices of eating, storing, visiting and gathering. While the hospital management first repressed and condemned this, they eventually depended on, and even facilitated these African practices to make do and keep the overcrowded and financially-plagued hospital running. While middle figures such as nuns and medical assistants, and likely other African staff such as nurses, boys, or technical personnel whose voices remain muted in the archives, equally left their mark on the architecture and daily realities of the medical complex, parastatal philanthropic organizations funded the hospital from afar. This intense interdependence prefigures the present-day hybrid governance of Congolese hospitals, where together with the state, a myriad of actors – ranging from visiting family members to civilian organizations, religious orders and international NGOs – negotiate to provide medical care. Of course the scale on which these historical forms of hybrid governance were being practiced, and the degree to which colonial government was keen on acknowledging such practices, was drastically different from hybrid governance in Congo nowadays. Yet, by keeping the capital's booming labor population as healthy as possible within the colony's challenging conditions, it was hybrid governance, rather than the rigorous top-down execution of biopolitics, that helped to locally found Belgian Congo's 'armature médicale' and support the colonial extraction economy of the interbellum.

Image 19 . *Réfectoire & Distribution des repas*

During the first decade of the *Hôpital des Noirs de Léo-Est* the hospital staff still prepared and offered meals to the patients in the refectory (above). Nonetheless, the image below suggests that the staff still counted on able patients or family members to bring around meals to bedridden patients, and a special stand had been installed for distribution.

Above: *ca.* 1935, MRAC, Office Coloniale, AP.0.1.3477.
Below: *ca.* 1935, MRAC, Office Coloniale, AP.0.1.3421.
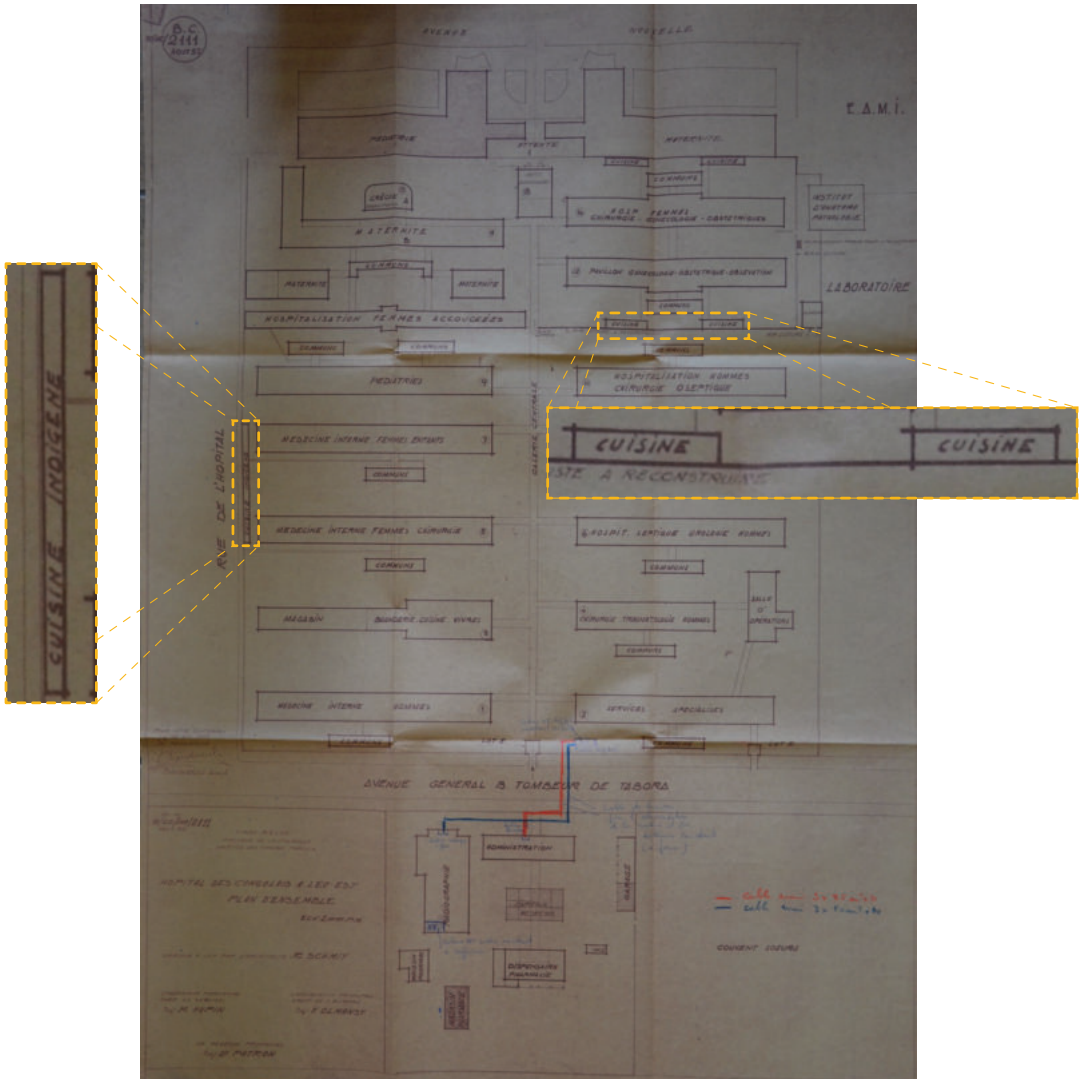
Image 20 . *Plan d'Ensemble*

As the hospital became increasingly overcrowded, and the kitchen service started dilapidating, patients and family members were expected to cater for themselves. By the 1950s, this seems to have become a fairly well-established practice, and specifically designed kitchens offered space for African visitors and patients to prepare their own meals.

ARNACO/G-108/449, 1955.

2/MEDIUM

In/visible hospitals as symptoms of Léopoldville's 'sanitation syndrome'

Ever since anthropologist Filip De Boeck's highly influential book, *Kinshasa: Tales of the Invisible City,* questions about the visible and invisible in Kinshasa have spawned a rich academic scholarship. While De Boeck's predominantly anthropological focus on the present is perhaps less central to this PhD, the work he incited is. Recasting and recycling the enigmatic title of the book, architectural scholars in particular have widely acknowledged his work to be groundbreaking, yet have also expressed criticism to his plea to look 'beyond the city's architecture' at the inhabitants' everyday practices and imaginations.[103] In *Kinshasa. Tales of the Tangible City*, for instance, Johan Lagae has directly responded to the work, stressing how 'contemporary urban life in Kinshasa is still very much played out through, and even dictated by, the physical environment and urban form.'[104] More relevant here is the fact that he also points out that much of Kinshasa's visible or 'tangible' urban fabric, including its most important medical infrastructure,

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103. De Boeck and Plissart (2004, p. 233).

104. Lagae (2013b, p. 39). Similar critiques have been expressed by architect and urbanist Wim Cuyvers (2006, p. 91). In an atlas provocatively entitled *Brakin. Brazzaville – Kinshasa: Visualizing the Visible,* he maps the 'visual presence' of walled-off UN-buildings, the conspicuous architectures of diamond industries, or the colorful tapestry of Vodacom-shops and billboards across these mirroring capitals. Through these photographs and maps, he sheds light on the strategies of visibility that the various inhabitants, industries and especially state actors deploy across the city's public space, and convincingly argues how Kinshasa's physical urban fabric remains crucial to gain a nuanced understanding of the capital.

remains 'defined by buildings and structures erected during the colonial era.'[105] Many of the city's landmark buildings date back to Belgian Congo, when the colonial government consciously deployed monumental architectures to express its colonial power. While these reveries of a 'Grand Léo' were more often than not unsuccessful in the Belgian colony – the long and tedious planning process of the Governor General's residence forms a case in point[106] – such politics of visibility did guide many of the urban planning proposals made throughout the colonial era.

As explained in the introduction, much of the scholarship on colonial architecture has been focused on highly symbolic public buildings similar to the Belgian Governor's residence. The wide array of publications on these 'dignified parts' of the colonial state reveals how architectural politics of visibility – or how the state uses architectural methods to represent and express its authority – is in itself a multi-layered phenomenon.[107] Researchers have discussed architectural ornamentation as forms of 'colonial regionalisms,' and have analyzed colonial monuments, grand public buildings, and monumental urban planning as architectural expressions of a 'vision of empire.'[108] Moreover, colonial states not only exercised architectural politics of visibility directly through the colonial built environment, but also through colonial propaganda, ranging from classic publications to world fairs, photographic albums and even film.[109] Recently, however, some authors have started to criticize how architectural historians have perhaps overemphasized colonial architecture as a mere expression of 'visible politics.'[110] Their work, which has majorly influenced my own research, unpacks how behind the 'dignified,' much more mundane architectures – postal offices, administrative buildings, police quarters, etc. – functioned as the 'efficient parts' of the state.[111] By stressing how these anonymous buildings formed the invisible yet essential backbone through which colonial governments effectively exercised everyday authority, these new insights have added a dialectical understanding of what could then be summarized as an architectural "politics of in/visibility."

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105. Lagae (2013b, p. 39).

106. The debacle of the Governor General's residence, for which the first architectural projects were developed in 1924, but which was only constructed from 1956 onwards, has been minutely described in the doctoral dissertation of Johan Lagae (2002).

107. Van De Maele (2019, p. 12).

108. Crinson (1996; 2007, p. 83); Metcalf (1989, 1999); Morris and Winchester (1987); Wright (1991).

109. Lagae (1999); Morton (2000); Wright (1991). On various forms of colonial propaganda, see De Moor et al. (2002); Stanard (2012).

110. As Bozdoğan (2001, p. 9) and Chang (2016, p. 11) have called to the 'highly visible and politicized image of power' to which colonial architecture contributed.

111. See e.g.: Kidambi (2007); Salami (2016); Santiago Faria (2014); Scriver (1994, 2007b); Sengupta (2010, pp. 13-26; 2020); Van De Maele (2019, p. 12).

In this ***medium*** scale, I want to highlight yet another layer of these dialectical politics of in/visibility, not by looking at 'efficient,' mundane forms of architecture, but rather by unpacking how the colonial authorities deployed opposing architectural strategies of visibility and invisibility within the segregated reality of urban hospital infrastructure during the interbellum. I focus on Léopoldville's two hospitals constructed under the *Plan Franck*: the already discussed *Hôpital des Noirs de Léo-Est*, and the *Clinique Reine Elisabeth*. The stark differences in architecture and urban planning of the two hospitals reveal how the symbolic representation of state power in a colony focused on segregation, hierarchy and prestige, was not only expressed by visible, often monumental architecture, but equally by spaces and architectures that were concealed or made invisible, since they undermined the dignified 'vision of empire' the colonial state sought to establish.[112]

It is this politics of in/visibility behind the development of Léopoldville's medical infrastructure that I trace in this chapter. As the urban center evolved from a rural outpost into the main transport hub and the administrative capital of Belgian Congo during the interbellum, the city drastically changed. African laborers and European officials flooded the town, and Léopoldville's *de facto* spatial segregation of the early days was increasingly challenged during the 1920s. Following the example of many other colonial powers, the Belgian authorities implemented a neutral zone to separate both populations. Segregated hospital infrastructures for Africans and Europeans directly reflected this urban scheme, and the broader colonial hierarchies present in Belgian Congo.[113] On the one hand, the European *Clinique Reine Elisabeth* visibly materialized state power and the 'prestige du blanc,' not only through its architectural design and comfort, but also through its strategic location along one of the main vistas of the new capital's grand urban planning project. On the other hand, the colonial authorities consciously sought to conceal the *Hôpital des Noirs* which, located on the "wrong," European side of town, defied Belgian Congo's hierarchical 'vision of empire.' Although this binary project of visualizing and rendering invisible was not fully implemented – as was so often the case in the colony – the ambition was clear: to materialize the segregated colonial order of the interbellum within the capital's medical cityscape.

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112. They do however form an important topic within social sciences, and some architectural scholars focusing on migrant spaces in Europe have also discussed 'politics of in/visibility.' See e.g. Beeckmans (2020); Simonsen et al. (2020).

113. See also the work of Sofie Boonen (2019); Lagae et al. (2013) on Elisabethville.

The 'sanitation syndrome' in a dual city

Although now a single and vast urban area that constitutes one of the largest metropolises of the African continent, the city of Léopoldville was at the end of the 19th century still only comprised of two very modest trading settlements. The western outpost – which was originally named Léopoldville, but later became Léopoldville-Ouest – had already been founded in 1881 by Henry Morton Stanley. Situated just upstream from a long series of rapids, it served as an inland harbor from which goods shipped from the inland of Congo could be carried by African porters along the unnavigable parts of the Congo river to the seaport of Matadi. The settlement quickly became an important logistical hub in the exploitation of the Congo Free State and the early Belgian Congo, growing into one of the larger outposts of the colony and an important administrative district seat by 1910.[114] The eastern outpost, situated six kilometers downstream, had been founded around 1890, and while it remained much smaller than the older outpost during its first two decades, Léopoldville-Est quickly caught up from the 1910s onwards.[115] As the harbor of Léopoldville-Ouest was situated dangerously close to the rapids, new port infrastructure was being built farther downstream, and Léopoldville-Est boomed as a commercial center. Even though contemporary passersby still described the eastern settlement as 'qu'une vaste plaine poussièreuse où un peu partout sont des chantiers entre lesquels passent des avenues incomplètes,' it increasingly rivalled in size with its older counterpart.[116] Despite this growth, however, Léopoldville remained a dual city by the launch of the *Plan Franck* in 1921, with its two modest outposts only poorly connected through the railway and a dusty track that took almost two hours to cover by foot.

Yet it was not only the existence of two, separated urban poles that made Léopoldville a dual city. As especially Léopoldville-Est continued to expand, the colonial authorities increasingly discussed the need to clearly segregate the city along racial lines. Already before the war, several colonial officials had advocated racial segregation. District Commissioner Georges Moulaert, for instance, formulated an urban vision for the future development for the city in 1912. Not only did he propose to join Léopoldville-Ouest and Léopoldville-Est together,[117] this unified city would also consist of 'three parallel strips: the river, the European

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114. On the 1st of August, 1888, the District of Stanley Pool was created, with from then on Léopoldville as its administrative seat. By the 1910s, some 1500 people worked at the transit harbor of the town. Pain (1984, p. 13).

115. At the time, the post was still officially called Kinshasa, and it was only in 1924 that it changed its name to Léopoldville-Est.

116. Chalux (1925, p. 110). According to De Maximy (1984, p. 66) some three hundred meters of extra docks were constructed in 1911, most likely financed by the royal *Fonds Spécial*. See also Auvenne (1983, pp. 92-99); R. Vanderlinden (1953, pp. 19-21).

117. George Moulaert had also already proposed to install an administrative quarter and residences for European officers at the *Pointe de Kalina*, foreshadowing the later urban scheme of 1923. See De Meulder (2000, pp. 49-51).
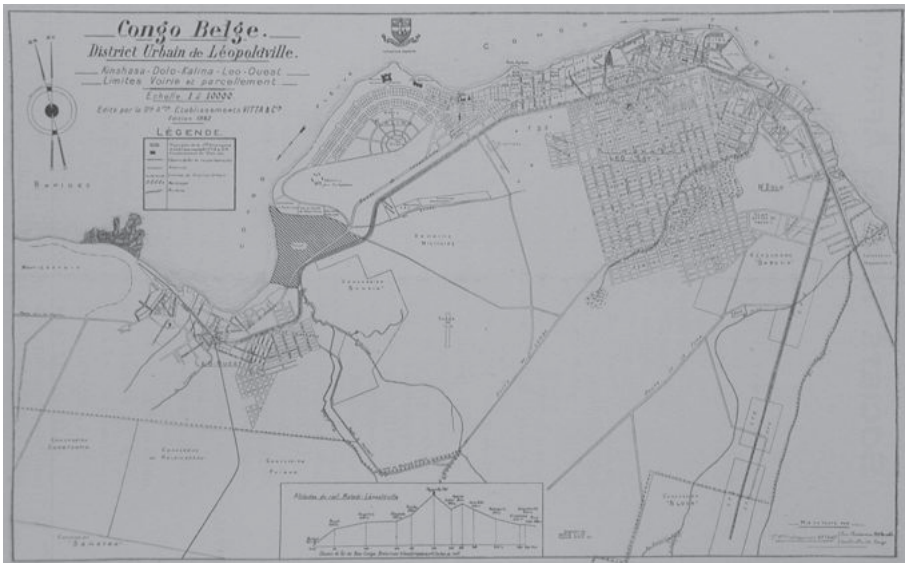
Image 21 . *District Urbain de Léopoldville,* 1927.

After the second World War, Léopoldville's medical infrastructure was still marked by the
two colonial outposts from which the city originally evolved.
AA/Cartothèque, 321/1134.

ville, and the inland *cité indigène*,' with the latter separated from the European
parts by the railway line. Although his proposal was never fully realized, the train
tracks did somewhat haphazardly mark the border of the European town of
Léopoldville-Est throughout the 1910s. South of this unintentional yet practical
barrier, an empty stretch of land, which also contained an old dispensary for
Africans, separated the European residences from African villages.[118] In the years
after the war, however, the European town was slowly bursting at its seams.
Without room northwards to expand due to the Congo river, it started extending
across the railway, while the African *cité indigène* grew closer towards the European
town. This fuzzy strip of land, where the European residences transitioned into
the African parts of the city, became a very 'favorable position for trading.' The
area attracted an increasing amount of merchants, often of 'Portuguese, Greek,
and Italian descent,' who quickly 'established a new commercial district and
market building on the boundary of both quarters.'[119] By the end of the 1920s,
Léopoldville-Est's own growth and commercial success had carved away the *de
facto* segregation that had existed in the town's early years.

118. Beeckmans (2013b, p. 252).
119. Beeckmans and Lagae (2015, p. 204). On a historical analysis of Kinshasa's several public markets, see
Beeckmans and Bigon (2016).

Frequented by both Europeans and Africans, this area was a thorn in the side of the colonial policymakers, who were increasingly influenced by segregationist policies circulating across the globe. Especially British doctors and sanitary experts believed that segregation was in fact the cheapest and most effective way to prevent the spread of tropical diseases. As explained in the introduction, the way tropical medicine and urban sanitation have been used and abused to scientifically justify racial segregation was first described and coined by Maynard Swanson as the 'sanitation syndrome.'[120] Other authors later confirmed how a similar interplay between medical science and urban planning also existed in other colonies outside of the British empire. Through his concept of 'segregation mania,' especially Carl Nightingale has explored how a shared culture of racial segregation emerged across the globe.[121] Sanitary experts, colonial doctors and urban planners from various colonial powers further disseminated these beliefs beyond language barriers and classic axes of colony and *métropole*. International conferences and publications were a major factor in this transnational diffusion, as multiple authors have already discussed.[122] Yet the emergence of international healthcare organizations such as the Paris-based *Office International d'hygiène Publique* and the *League of Nations Health Section* may have also played a somewhat overlooked role. Not only through colloquia and conferences – often locally organized in the colonies[123] – but also through international research missions, where colonial doctors and policymakers visited other colonial cities and informally shared knowledge on urban sanitation, segregationism continued to spread.[124]

As colonial policy makers in Belgian Congo became increasingly convinced of the 'sanitation syndrome,' segregation morphed from an unsuccessful implicit practice into an institutionalized policy from the beginning of the 1930s onwards. Architect René Schoentjes not only formulated a general 'schéma d'une ville congolaise' as an urban planning template for Congolese cities, but also concretized this scheme for the city of Léopoldville. As Schoentjes was attached to the Ministry of Colonies in Brussels, however, he failed to take into account the existing situation on the ground, and his plans would eventually have little impact on Léopoldville's urban planning.[125] Nevertheless, the local authorities still aimed to implement racial segregation. Already in 1928, they issued an ordonnance in 1928 for a *zone neutre* that would 'once and for all neatly

120. Swanson (1977, p. 387).

121. Nightingale (2012).

122. See e.g. Home (1997, pp. 125-127), and especially Beeckmans and Lagae (2015, p. 205) who discuss how some of Belgian Congo's colonial doctors, but also architect Schoentjes, directly referred to British and French practices in other colonies.

123. As Bigon (2014) has already discussed.

124. On the influence of these two international organizations on hospital planning, see 2/A.

125. On Schoentjes' plans in Léopoldville, see Beeckmans and Lagae (2015, pp. 205-206).

Image 22 . Ad-hoc racial segregation in Léopoldville-Est, 1915

In the 1910s, the dispensary was still situated in a no-man's land south of the railway, which functioned as an unintended southern border for the European part of Léopoldville-Est.

Plans based on earlier work by Kennivé and Decoster, 2012, and further developed by author. The African quarters depicted here is a mere indication, based on the later road network, as no clear plans exist of the lay-out of these settlements at the time.
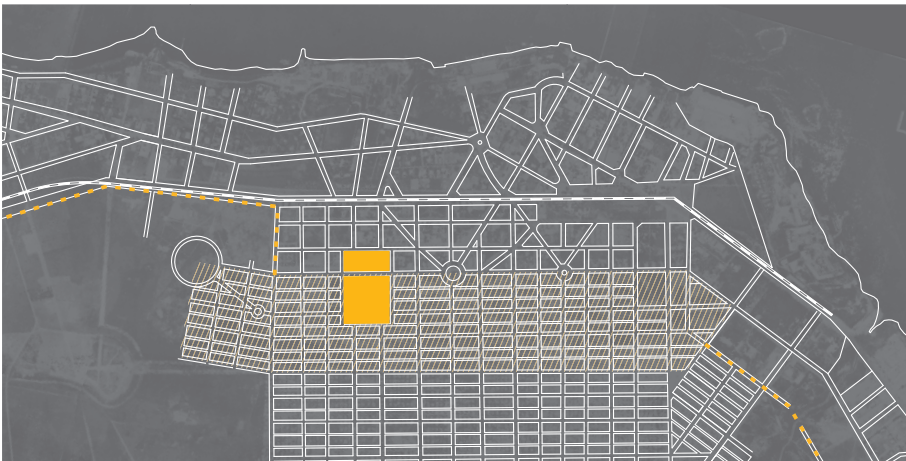
Image 23 . Transition zone of European and African residences in Léopoldville-Est, 1925.

From the end of the war onwards, both the European and African neighborhoods of the city expanded towards each other, creating a fuzzy strip of land where European and African dwellings stood side by side.

Plans based on earlier work by Kennivé and Decoster, 2012, and further developed by author.

separate the European from the African neighborhoods.'[126] Much like Swanson's 'sanitation syndrome' described in British colonies, both Schoentjes and the local authorities referred to pseudo-scientific medical arguments as a pretext to legitimize racial segregation. The neutral zone, for instance, was explicitly named the 'cordon sanitaire,' and local policymakers argued that for reasons of public health, 'Européens, lesquels constituent la partie la moins nombreuse et la moins infectée de la population' had to be separated from 'les noirs,' the 'réservoir des affections intestinales, dysenterie, verminoses, …'[127] Just as Schoentjes would do, they recommended that the width of the zone exceed the maximum flying distance of the *Anopheles* mosquito, thus protecting the European residents from infection by the presumably disease-carrying African population.

The annual reports of the city's local *Service d'Hygiène Publique* suggest that at least some contemporary medical officials were aware of the fact that the medical arguments used as a pretext for segregation were not completely scientific. Led by Dr. Albert Duren – who would play a major role in Belgian Congo's medical policies of the post-war period – this service was founded in 1922 for 'la lutte contre les vecteurs et les hôtes intermédiaires des maladies transmissibles' and for maintaining 'l'hygiène des ports et des villes.'[128] Each urban center had its own branch, and the one in Léopoldville was divided into several sections, each led by an *agent sanitaire* and responsible for a different neighborhood of the city. A *brigade sanitaire*, comprised of several African *moustiqueurs, petroleurs,* and *travailleurs* had to collect *gîtes des larves* of mosquitoes, eradicate them with petroleum, or remove puddles and vegetation that could serve as possible breeding grounds. Collected *gîtes* were then brought in for scrutiny in the local lab, and the ratio of *Anopheles* eggs versus other eggs was minutely documented in extensive annual charts for each section of the city.[129] These reports exemplify the extensive and cumbersome *paperasserie* that characterized the ever more ponderous administrative machinery that emerged during the interbellum, but also shed a new light on Léopoldville's 'segregation mania.'[130] Despite the fact that it was generally believed that Africans were the main carriers of tropical diseases such as malaria – beliefs had been spread throughout the various international networks on colonial urban planning – many more *gîtes* were found and collected in the European *ville* than in the *cité indigène*. Of course this could reflect how the city authorities prioritized sanitation of the European parts of town, but surprisingly enough, as the implementation of the neutral zone advanced, the ratio of infected

126. Jaarverslag over het Beheer van de Kolonie Belgisch Congo, 1928, 66, quoted in: Beeckmans (2013b, p. 254).

127. AA/GG 19567, *Note pour monsieur le Ministre des Colonies sur divers problèmes relatifs au district urbain de Léopoldville*, from the local *Commission d'Hygiène*, 1927.

128. Burke (1992, p. 97).

129. As explained: 'La determination des gîtes à anopheles est faite régulièrement par examen direct des larves; les gîtes sont de plus mis en élévage pour confirmation de la diagnose par les adultes éclos. AA/RACCB 1046/A, *Rapport Annuel du Service d'Hygiène Publique de Léopoldville,* 1932.

130. Nightingale (2012, p. 159).

Image 24 . *Nombre de gîtes à Anophèles trouvés en 1932*

Yearly overviews of contaminated *gîtes moustiquaires* exemplified the far-reaching *paperasserie* of the medical service, but also that the neutral zone seemed to miss its intended effects.
AA/RACCB 1024/A.

Image 25 . Schéma d'une agllomération urbaine dans le site de Kinshasa, Schoentjes, 1933.
Notice how the hospital for Africans was positioned in the neutral zone.

eggs also shifted from being slightly higher in the *cité indigène*, to peaking in the European *ville*.[131] This meant that either the *Anopheles* mosquito flew over from the African *cité*, easily crossing the allegedly scientifically determined distance of neutral zone, or that the European population was just as much a carrier of the disease. In any case, these inspections, meticulously catalogued in endless piles of paper, must have shed some doubt amongst local officials such as Dr. Duren on the effectiveness of the *cordon sanitaire*, and its underlying medical arguments.[132]

Whether the observations of the service hygiene led to a change in the city's official policy on segregation is hard to gage. What is sure, however, is that after the economic crisis much of the initial ambitions to strictly segregate the city were watered down. Again, the discussions behind these policies expose how the medical arguments behind the *cordon sanitaire* often proved arbitrary, and were less based on scientific criteria, and more on the financial means available. As the reports of the *Comité Urbain* reveal, the proposed width of the zone seemed to progressively shrink according to the budgets available, from the initial 3000, to 800 and finally to only 250 meters when the economic crisis struck.[133] In the end, even this strip of 250 meters wasn't fully realized – expropriations and maintenance proved too costly[134] – and by the beginning of the second world war, the neutral zone was still limited to 'a fragmentary series of small buffer zones, rather than a continuous no man's land.'[135] Moreover, just as in other colonial cities, 'cracks'

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131. In the eastern *cité indigène*, this ratio peaked in 1932, with over 22 per cent of the eggs contaminated. According to Dr. Duren, the explanation of this surge was precisely the neutral zone: 'Cette année les indigènes de la zone neutre, expropriés, ont du se déplacer à la nouvelle cité, d'où augmentation de l'étendue de la partie explorée. Au surplus il y a eu forcément une période intermédiaire pendant laquelle aucune des deux zones n'était aménagée complètement.' By 1939, however, this had changed to only 8.5 per cent, while the European neighborhoods of Kalina, N'Dolo and the city center peaked at respectively 20, 20, and 13.5 per cent. This change may have been partly related to the economic crisis, as explained in the annual report of 1931: 'A la cité européenne, la situation est devenue difficile, la situation économique n'ayant fait qu'empirer. Dans bien des cas on s'est trouvé devant des parcelles abandonnées par suite de faillite.' The situation may have even been worse than actually documentend, as the report suggested that inspections often met with resistance from European inhabitants: 'les visites domiciliaires chez les blancs ne donnent pas les résultats qu'on pourrait en espérer. C'est d'autant plus regrettable que ce travail absorbe la presque totalité du temps d'un auxiliaire.' This suggests that the hygienic examination of European residences may have given rise to challenging, 'liminal' interactions, during which African *gardes-sanitaires* entered and controlled European properties, temporarily inversing and undermining the power asymmetries imbricated in the established colonial order. AA/RACCB 1046/A, *Rapport Annuel du Service d'Hygiène Publique de Léopoldville,* 1931; 1932; 1939. This bureaucratic effort of meticulously charting *gîtes* was not limited to Léopoldville: see Lagae, Sabakinu Kivulu, and Beeckmans (2019, p. 150), who also describe similar tensions during home visits, yet in the *cité indigene*.

132. As explained in 3/M, the same Dr. Duren would become an important advocate for the post-war *politique de rapprochement*, a progressive policy that sought to curb racial segregation in hospital infrastructure.

133. For a fine-grained analysis of the discussions concerning Léopoldville's neutral zone, see Beeckmans (2013b, pp. 251-271). In other colonial contexts, a similar 'arbitrary nature of the recommendations' has been observed, see Home (1997, p. 126).

134. The recurrent subsection on the 'Zone Neutre' in the annual reports of the *Service d'Hygiène Publique* thoroughly reported on the 'expropriations destinées à la création de la zone neutre' which it carried out each year. These were not only expensive, the head of the *Service*, Dr. Duren, also complained on several occasions about the insalubrious state of the *zone neutre*, and the shortage of *main d'oeuvre* to properly tend to the greenery of the zone.

135. Beeckmans and Lagae (2015, p. 206).

existed in the *cordon sanitaire*, as many of the African domestic servants crossed the zone every day to work at the residences of their European landlord.[136] Driven by changing budgetary possibilities, these pragmatic readjustments reveal how Léopoldville's policymakers consciously used a sanitary discourse to rationalize a version of racial segregation that was much less about hermetically cordoning two populations, than about using spatial measures to soothe European fears of contamination and African masses.
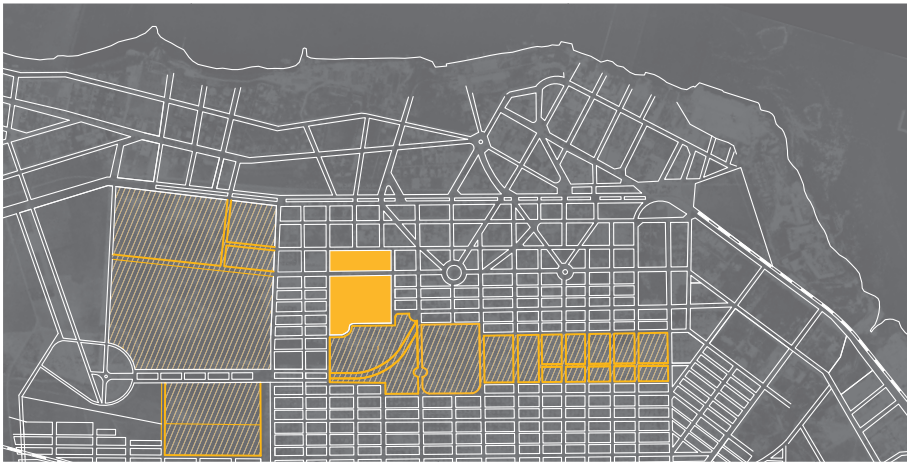
Image 26 . Buffer zones in Léopoldville-Est, 1935

Due to budgetary restraints, the ambitions to implement a strict neutral zone in Léopoldville-Est remained largely unfulfilled. Instead, a series of separate buffer zones were increasingly installed in the 1930s, of which the width varied rather based on financial means available, than on medical science.

Plans based on earlier work by Kennivé and Decoster, 2012, and further developed by author.

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136. Lagae et al. (2013).

The conspicuous European Clinique

Hospital infrastructure occupied a peculiar place within this dual city of twin outposts and racial segregation. At the time of the launch of the *Plan Franck*, Léopoldville's hospital infrastructure still reflected the city's origins of two separated settlements. In the older, and originally more important outpost of Léopoldville-Ouest, the by then already rather decrepit *Hôpital de la Rive* for Africans, and the *Hôpital de la Croix Rouge* for Europeans were still operational, though both faced serious sanitary issues. Since the development of Léopoldville-Est had started later, the post only harbored a dispensary for Africans – although some poorer Europeans may have also bought medication or sought treatment there, again suggesting how hospital segregation wasn't considered a priority by local officials or inhabitants during this early period.[137] This meant that when seriously ill, almost half of the population of this dual city had to walk more than six kilometers along the dusty track to reach the nearest, but already dilapidating hospital infrastructure in the other end of town.

When the colonial government officially decided in 1923 to transfer the central colonial administration from Boma to Léopoldville, it formulated a grand urban scheme for the new capital that aimed to remedy this precarious situation. As part of the *Plan* Franck, the proposal aimed to create a capital of monumental allure, and join together both poles into a single, grand, Léopoldville, by positioning the new administrative center, with its new European residences, public buildings and broad boulevards, in between the two outposts. Kalina, as this administrative quarter was called, was conceptualized with 'des avenues circulaires parallèles autour d'une place centrale d'où partent de larges boulevards radiaux, au bout desquels des bâtiments publics imposants seraient érigés.'[138] With symbolic public functions such as the Palace of Justice, the head post office, and the Governor General's residence along long broad vistas, the scheme thus clearly reflected the government's ambitions to transform the still modest town into 'le grand carrefour de l'Afrique Equatoriale.'[139] While the *Hôpital des Noirs de Léo-Est* was not a part of this scheme – it was already under construction at that time – the new hospital for Europeans, later called the *Clinique Reine Elisabeth*, was a central part of this grand urban scheme, and was a vital architectural landmark that sought to express Belgian Congo's 'vision of empire.'

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137. See also 1/M. AA/RACCB 765, *Postes médicaux de la Colonie avec les établissements hospitaliers qui y fonctionnent, Médecin en Chef,* Rodhain, 5 June, 1920.

138. Lagae (2007, p. 73).

139. As military commander and district commissioner Georges Moulaert had already envisioned Léopoldville in 1912. It was also Moulaert who was a fierce advocate for the transfer of the capital, and who was at the basis of the city's 'développement urbanistique ultérieur.' See De Meulder (2000, pp. 47-60); Whyms (1956, pp. 32-33) While the decision to transfer the colonial administration from Boma to Léopoldville had already been decreed in June, 1923, the *Gouverneur Général* Auguste Tilkens only took residence in the new capital in October 1929.

The need for a new hospital for Europeans had already been raised a few years before in 1921. Dr. Broden, head of the *Ecole de Médecine Tropicale* and former director of the medical laboratory in Léopoldville, had complained that the colonial building efforts regarding hospital infrastructure were too much focused on the Congolese, and that European healthcare needs had been 'perdu de vue.'[140] Given the appalling sanitary circumstances Africans faced at the time in hospitals such as the one in Boma or Léopoldville-Ouest, such statements now seem offensive and inconsiderate. Nevertheless, although conditions were undeniably better in colonial hospital infrastructures for Europeans, I've already discussed how even these had not been a real priority of the administration in early Belgian Congo. Just as in Boma, Léopoldville's hospital for Europeans had been funded, constructed and taken care of by the parastatal *Croix Rouge* rather than by the state, and due to a lack of financial means, healthcare conditions were still far from optimal. Critique on the city's *Hôpital de la Croix Rouge* quickly rose amongst European officials, as it was not only located too far from the booming center of Léopoldville-Est, but also no longer responded 'aux exigences d'un hôpital moderne.'[141] If these critiques at first glance reveal the 'conditions défavorables' of the facility,'[142] they are perhaps more indicative of how colonial notions of comfort and health were based on and redefined by racial differences: the 'situations extrèmement pénible' that colonial doctors critiqued at the *Hôpital de la Croix Rouge* were mainly about the 'agonizing' discomfort of European patients having to share a room, while such concerns did not at all exist about the much worse healthcare conditions African patients were experiencing at the time.[143] Yet the critiques also show how policymakers strategically aimed to deploy hospital architecture in the colonial state's 'politics of visibility.' The 'triste hôpital du passé,' *architecte principal* Vander Elst argued, had to be substituted by a 'hôpital aimable' that would legitimize colonial rule and propagate the medical reputation of Belgian Congo.[144]

The urban planning and location of the future *Clinique Reine Elisabeth* clearly testified of these ambitions. The location of the new hospital had already been decided in the urban planning schemes for the new capital's administrative quarter. The still empty plateau of the 'colline de Kalina' was a strategical choice for several reasons. First, just as the new administrative center had been positioned in between Léopoldville's two poles, the location of the *Clinique Reine Elisabeth* would be easily accessible to all of the city's European population. Second, the terrain itself was still vacant and relatively flat with little vegetation, which

140. AA/H 4420, Note on *Lutte contre la trypanose humaine,* by Dr. Broden, 1921.

141. AA/GG 15799, *Rapport annuel* établi par Monsieur le Docteur Repetto sur le fonctionnement du Service de l'hygiène dans au District du Moyen Congo, 1923.

142. AA/GG 15922, Note from *Gouverneur Général*, 31 May, 1926.

143. AA/GG 15899, Letter from *Gouverneur Provincial* to *Gouverneur Général*, 27 May, 1928.

144. AA/GG 15899, *Projet d'hôpital pour Européens à ériger à Léopoldville-Kalina* by *Architecte principale* M. Vander Elst, n.d.

meant that construction would also be relatively cheap. Third, the plateau was considered particularly suitable for a medical complex for Europeans. Its high altitude, openness and proximity to the Congo River provided a relatively cool and salubrious micro-climate that was considered perfect for European patients suffering from tropical ills. Not only this aery location, but also the panorama it would offer to recovering patients, made the location ideally suited for a hospital that not only had to serve as a medical facility, but also as a comfortable retreat from the stress and unease of the tropical climate. Lastly, and most importantly perhaps, located at the end of the *Boulevard Léopold II* and the *promenade de la Raquette*, the hospital site occupied an incredibly prominent place within the broader monumental urban planning of the new capital. It served as a grand end point of a major esplanade and walkway, along which pedestrians would stroll from the administrative center, across the 'Mémorial Léopold II' and the 'Pointe de Kalina' until the 'Belvédère,' which offered a splendid view over the Congo River and the rapids downstream.

The architectural design of the new *Clinique* were explicitly destined to reinforce this grand urban setting. It preceded the sober yet modern style that would reoccur in the *Institut de Recherche Médicales* and the *Ecole Médicale des Assistants Indigènes*, but also echoed earlier Belgian hospitals such as Victor Horta's famous Brugmann Hospital in Brussels.[145] With its impressive symmetrical façade and portico, the administrative building marked the official entrance of the complex. The spacious, two-story hall, lit through a zenithal skylight and high dormers, opened up to the internal courtyard of the complex. Again reminiscent of metropolitan examples of minutely designed hospital gardens, this symmetrical courtyard, with its regular-shaped walkways, tidy flowerbeds and grass lawns, was unique in hospital planning in Belgian Congo. Four pavilions bordered the garden, as well as the two-story façade of the hospital's convent. The accommodation for the *soeurs Franciscaines de Marie* was much more elaborate than that of their colleagues at the hospital for Africans. Connected by a corridor to the main building, an extensive chapel with leaded windows and skylights offered a secluded place for prayer. With its colonnade and symmetrically protruding aisles, the convent offered a grand and stately façade to the ornate garden where visitors and patients could stroll between the pavilions of the complex. Interestingly, the rear side of the convent was just as much impressive. With an imposing portico and terrace 'd'où l'on jouit d'un des plus beaux panoramas du Stanley-Pool,'[146] it was this rear façade that strategically faced towards the *Boulevard Léopold II* and the *promenade*,

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145. Lagae (2007, p. 85) has also argued how Léopoldville and Brussels were 'villes miroirs,' pointing to the similarities between the administrative quarter of Kalina with important urban projects in Brussels such as the Mont des Arts and the Parc de Bruxelles. On the influence of the *Beaux-Arts*-idiom in interbellum Belgian Congo and the important role architect Vander Elst played in this development, see Lagae (2002, pp. 94-95). As will be explained more thoroughly in 2/A, the Brugmann hospital had served as an explicit inspiration during the design process of the *Clinique*. See Allegaert et al. (2004); Dickstein-Bernard et al. (2005).

146. As government officials would later note in L'Assistance Hospitalière (1934).
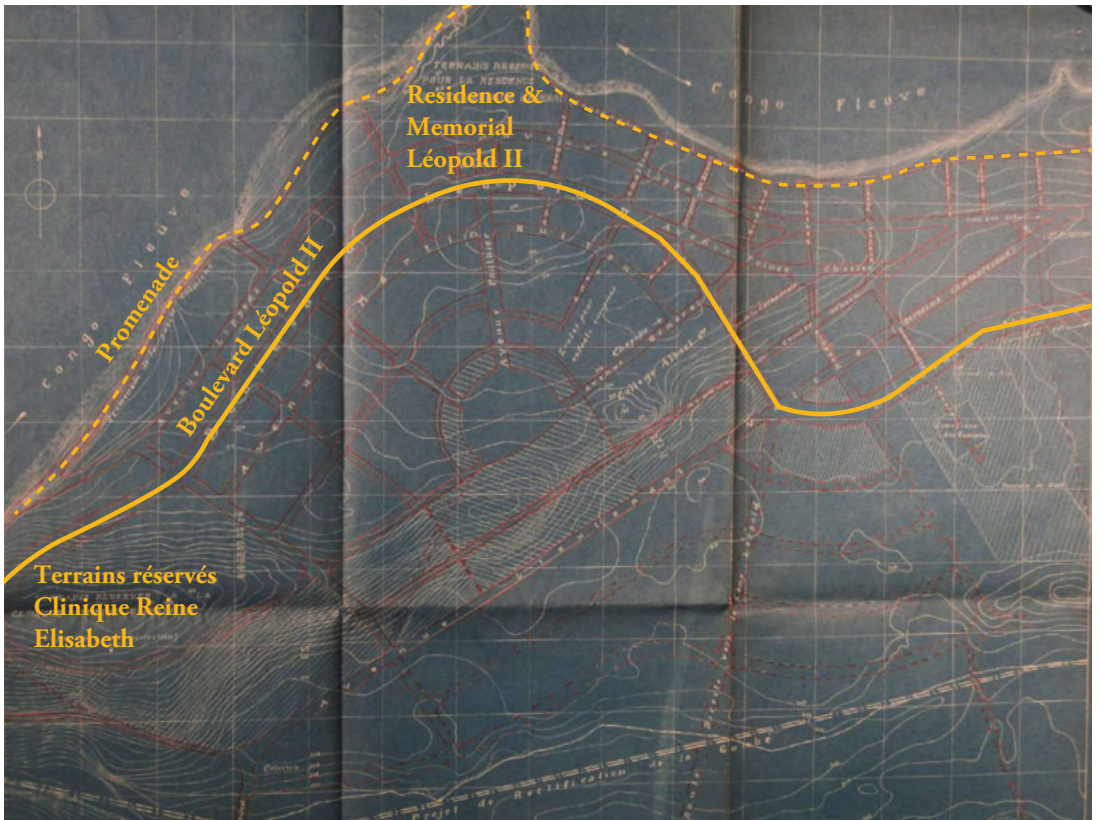
Image 27 . Planning of the new Kalina neighborhood

Given a prominent position within the future development of the administrative capital in Léopoldville, the urban planning of the *Clinique Reine Elisabeth* clearly served the state's 'politics of visibility.'

AA/859.

Image 28 . Main entrance of the administrative pavilion
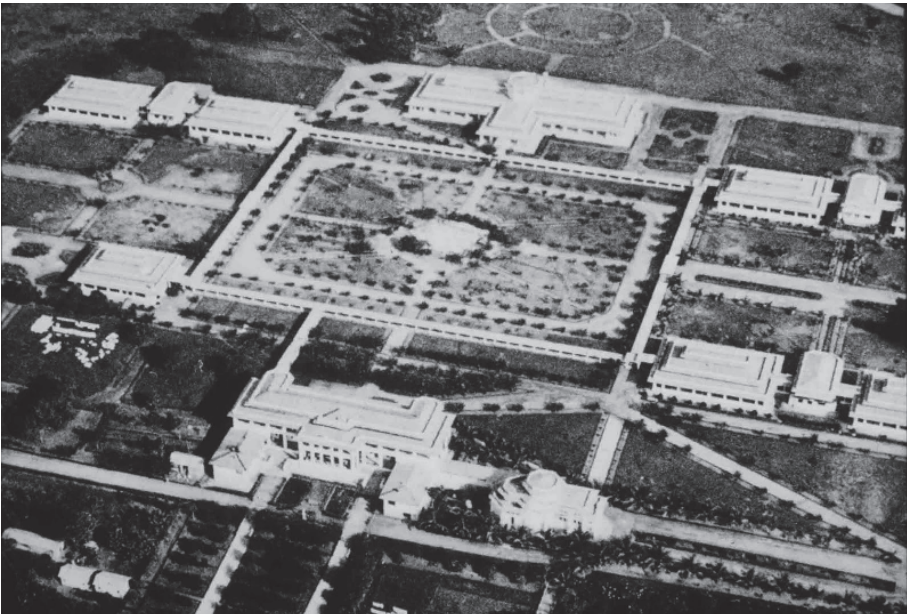*ca.* 1937, MRAC, Franciscan Sisters, AP.0.0.38539.

Image 29 . Rear façade of the convent, oriented towards *Boulevard Léopold II*
ca. 1937, MRAC, Franciscan SistAP.0.0.38544-2.

Image 30 . View of the luxurious, well-ventilated pavilions and outstretched internal courtyards
1934, MRAC, Franciscan Sisters, AP.0.0.38544-1.

Image 31 . Aerial view of the vast hospital complex

The internal courtyard of the hospital was designed as a symmetrical, park-like garden, an exceptional feature for hospital planning in the financially plagued colony.
ca. 1937, http://kosubaawate.blogspot.com/2011/08/ [accessed: 21 March, 2020].

the esplanade and stroll way of the government plans for the new capital. Clearly, the building, the courtyard and its urban setting were all destined to impress patients, visitors, and passersby alike and materialize a medical 'vision of empire.'

The scale and comfort of the hospital underpinned this 'politics of visibility.' Built for a total of around sixty patients, the hospital was simply vast when compared to the *Hôpital des Noirs de Léo-Est*, and luxurious even by European standards. Each of the four, very similar pavilions were perfectly aligned to the east-west orientation, 'afin de protéger de l'ardeur du soleil.'[147] Next to a central 'salle de séjour' where recovering patients could gather and relax, each pavilion included fifteen single-patient bedrooms, of which some offered additional space for a visitor's bed when patients came from the Congolese interior. All of the rooms had a private bathroom, storage facility and an airy veranda of over three meters wide with *portes-fenêtres* that let in the breeze coming from the Congo River. Private beds – let alone with private bathrooms and verandas – were exceptional even for the Belgian *métropole* at the time. For instance, the renowned Brugmann hospital, designed by renowned Belgian architect Victor Horta, didn't even feature private bedrooms.[148] As a result, and much in contrast to the *Hôpital des Noirs de Léo-Est*, which failed to meet Belgian hospital standards, the *Clinique* far exceeded the metropole's official guidelines for hospital design.[149] With this east-west orientation and the airy, spacious private rooms, the *Clinique* catered to widespread anxieties of neurasthenia and tropical disease amongst Léopoldville's European population, while the stark differences in comfort between both hospitals also architecturally expressed the 'prestige du blanc,' considered vital to the establishment of colonial order during the interbellum.

Of course, this luxury and architectural grandeur came with quite the price tag. As a matter of fact, the cost of earlier versions of the hospital design, which included three more pavilions, a separate surgical building, and distinct pavilions for logistical functions, had been even higher. In an extensive report on the initial design, provincial government architect Richard Lequy included not only minute plans of the various buildings, but also a detailed comparison of the estimated costs with international examples, literature and best practices presented in hospital planning guidelines and at medical conferences across Europe.[150] As he tried to pitch the design to the *Gouverneur Général* and the Minister of Colonies, he explained that the hospital would only cost 'un coefficient de 2.7' to '4.75' more per bed than the average European hospital, and that with almost

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147. As was considered optimal in the tropics. AA/GG 15899, *Hôpital pour Européens à Kalina* : *Rapport d'avant-projet*, March 1929.

148. See Allegaert et al. (2004); Dickstein-Bernard et al. (2005).

149. Whereas the *Conseil Supérieur d'Hygiène* stipulated a minimum of 9 m² and 30 m³ per guest, the pavilions of Léopoldville's new hospital offered almost the tenfold of airspace to each patient – without even taking the large *salle de réunion* in the middle of the pavilions into this equation.

150. As will be discussed more thoroughly in 2/A, this report clearly testified of transnational knowledge exchange across linguistic and imperial borders.
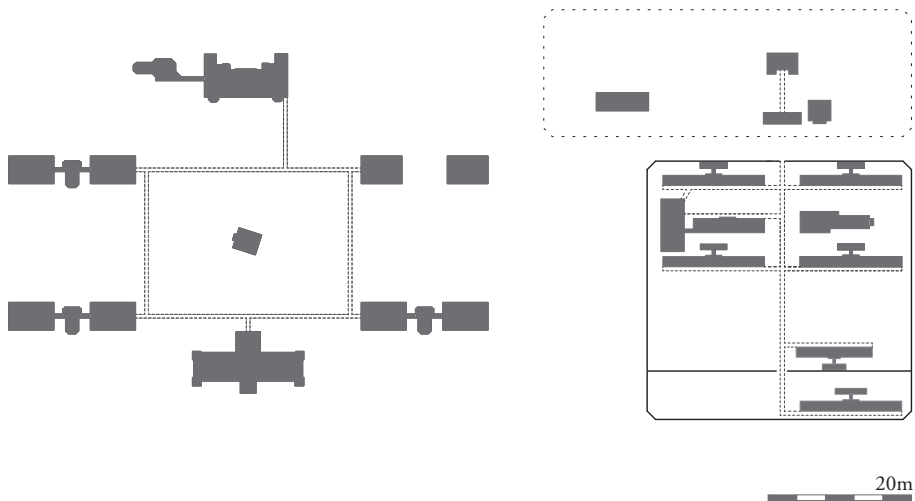
Image 32 . Comparison of the *Clinique Reine Elisabeth* (60 beds, left) and the *Hôpital des Noirs de Léo-Est* (348 beds, right)

At a time when airspace was still considered key for curing patients, especially in the tropical climate, these massive differences in scale form a clear-cut materialization of healthcare segregation in colonial healthcare.
Author's drawing.

Image 32 . *Pavillon Type*

With private rooms, baths, verandas and a central *salle de séjour pour convalescents*, the patients pavilions were luxurious by any standards.
1933, AA/3DG 1231.

exclusively private rooms. Members of the Public Works Department, such as the important engineer Egide Devroey, already suggested to scale down the design, warning that:[151]

> Bien que pour le Médecin en Chef la question du prix de revient ne doit pas nous arrêter, je ne puis m'empêcher de me dire que même si la situation financière de notre pays permettait de consacrer plus de 30 millions à un hôpital de 110 lits, ce serait au détriment d'autres oeuvres sociales.

The then *Ingénieur en Chef* Itten followed his colleague, and – as was usual in the administration – prepared a letter in the name of the *Gouverneur Général* to the provincial Governor concerning the issue, stating that 'toute dépense qui ne justifieraient ni l'hygiène ni la santé des malades doit être évitée.' The *Gouverneur Général* Auguste Tilkens, however, overruled his head of the Public Works Service, striking out this sentence and replacing it by emphasizing his 'désir de doter Léopoldville d'un hôpital digne du chef-lieu de la Colonie.'[152] The economic reality of the recession, however, soon put a stop to Governor Tilkens' ambitions. In the end, as the government faced increasing budgetary difficulties, several buildings had to be canceled and were – quite literally – scratched from the initial plans.

Still, the *Clinique Reine Elisabeth* remained an impressive complex. It was one of the few public projects of the initial urban plans for the Kalina quarter that was actually realized, underpinning its importance to the colonial government.[153] Shortly after its opening, the *Clinique* featured in the article published in the magazine *L'Assistance Hospitalière* I've already discussed before. In the piece, the hospital for Africans and for Europeans were similarly praised and mobilized by the colonial government to advertise the medical reputation of Belgian Congo. Although the state deployed a similar 'politics of visibility' for both hospitals in colonial propaganda, harshly opposing regimes of (in)visibility for both facilities were pursued on the ground. The conspicuous *Clinique Reine Elisabeth* constitutes a classic example of representative, visible architecture expressing a 'vision of empire' – as various architectural historians have already studied in Belgian Congo and beyond. It was destined to function as a flagship hospital that billboarded the healthcare endeavors of Belgian Congo through luxury, architecture, and its strategic urban setting. The architecture of the *Hôpital des Noirs de Léo-Est*, on the other hand, followed a completely different logic of *in*visibility.

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151. AA/GG 15899, Note for *Service des Travaux Publics* by E. Devroey, 2 May 1929. In this note, he pointed out that for the *Médecin en Chef*, cost was not an issue.

152. On the draft version of Itten, the *Gouverneur Général* also added in pencil in the margin that 'Le Ministre a dit qu'il faut faire quelque chose de très bien.' AA/GG 15899, Letter from *Gouverneur Général* to *Gouverneur Provincial,* 16 May 1929.

153. Compare this, for instance, to the project of the Governor's residence, as Johan Lagae (2002, pp. 119-151).

Concealing an African out-of-place complex

When the colonial authorities decided around 1920 that a new hospital for Africans had to be urgently constructed, little thought was given on the location of the hospital: with its adjacent vacant lots, the already constructed dispensary for Africans provide an obvious, cheap and convenient site for the future complex. When the dispensary was built in the previous decade, it was still situated in the empty stretch of land separating the African dwellings from the European *ville*. Especially after the war, however, the area drastically changed, as the expanding European and African parts of the city met and intertwined, encircling the dispensary. When construction of the hospital at the place of the dispensary started, the site was at the heart of this fuzzy zone, and was bordered by both European villas and African dwellings.

This close proximity of course fanned the flames of already widespread anxieties amongst Léopoldville's white population towards to growing masses of African inhabitants.[154] Because of the hospital's 'contiguité avec le quartier Européen,' its location was hotly contested – which is all the more remarkable since only a year before, the assembly of doctors hadn't spilled a single drop of ink on the matter. Now, it seemed, the situation had changed, and the Léopoldville's *Chambre de Commerce*, a collection of local European industrials and representatives, was issuing complaints in the local newspapers and to the *Gouverneur Provincial*. They explicitly referred to other colonial contexts to make their argument, confirming not only how the 'segregation mania' was indeed spreading across the continent, but also how local protagonists deployed and mobilized these transnational urban planning practices to mold local conditions to their own agenda.[155]

> *On peut confirmer sans crainte de dénégation que dans tous les pays du monde où l'on rencontre la coexistence de deux races, mêmes moins éloignées l'une de l'autre que ne le sont les blancs et les noirs, c'est une règle absolue d'empêcher la promiscuité entre eux et même la proximité respective d'habitation de leur zones. Partout on a le plus grand souci de les séparer nettement et de les écarter aussi loin qu'il est pratiquement possible.*

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154. As Francoise Auvenne (1983, pp. 140, 160-166) has noted in her analysis of contemporary local newspapers: 'Combien de fois n'était-il pas donné de lire dans les colonnes de "L'Avenir Colonial belge" des plaintes du genre: "A Kinshasa, on vole tous les soirs [...] Une bande de voleurs noirs – est-ce l'ancienne ? – recommence ses incursions et chaque matin on apprend que la maison d'un européen a été dévalisée.' See also the similar, more recent and in-depth analysis of Laurence Feuchaux (2001).

155. That strict segregation was practiced *partout*, was indeed an exaggeration that conveniently benefitted the Chamber's own agenda. AA/GG 14927, Note on *Hôpital des Noirs,* report of reunion of the *Chambre de Commerce,* 18 April, 1923.
It had been the *Gouverneur Provincial* himself who had wanted to take the pulse of the town's European inhabitants, as he later wrote to the *Gouverneur Général*: 'Dès le 7 avril, j'avais écrit à la Chambre de Commerce pour lui demander de me faire connaître avec précision les griefs que la population europeéenne de Kinshasa pouvait formuler contre l'emplacement de l'hôpital.' The population was clearly against the location of the hospital, as the note of the *Chambre de Commerce* reveals. See AA/GG 14927, Letter from *Gouverneur Provincial* to *Gouverneur Général*, 1 May, 1923.

While the chamber stressed how reasons of hygiene and urban sanitation were all the more urgent in the case of 'un hôpital alors surtout qu'il est destiné à recevoir des noirs atteints de maladies contagieuses,' they considered the inconveniences of living together a sufficient enough reason to remove the hospital: 'Si même les inconvénients hygiéniques, certains cependant, étaient inexistants, les sentiments de la population européenne à laquelle on veut imposer ce voisinage doivent être respectés.'[156] As Europeans neighbors had complained to members of the Chamber, the hospital would cause not only nuisances of noise and smell, but lacked architectural aesthetics. The simple barracks of the complex, 'nécessairement conçus dans un esprit de simplicité et d'économie, feraient de tort aux constructions environnantes.' As a result, the allegedly unsightly hospital would imply a direct devaluation of European properties – especially at the stately *Avenue de la Cité*, one of the main arteries of the European city of Léo-Est. Although *Gouverneur Provincial* Engels acknowledged that the situation was far from ideal, he nonetheless decided that the original location would have to suffice, since reconstructing the existing dispensary would prove too costly.[157] He did, however, appease the European inhabitants by stressing how a large wall would be added to conceal the complex, making sure that 'il n'y aura pas promiscuité des race parce que l'hôpital des noirs aura sa façade devant le quartier européen.'[158]

A few years later, when the first pavilions of the hospital had already been constructed, the discussion resurged, as racial segregation evolved 'from an improvised practice to an institutionalized policy.'[159] The implementation of the *zone neutre* pushed the *cité indigène* southwards, turning the fuzzy zone where European residences met with African dwellings into a more clearly European area. As a result, the *Hôpital des Noirs de Léo-Est* was suddenly located on the "wrong," European side of the neutral zone. This of course caused an intense and daily *va-et-vient* of African patients and family members crossing the neutral zone, completely undermining the city's strict segregation and again inciting numerous complaints from European inhabitants and officials alike. Engineer Itten, for instance, mobilized medical arguments to convince the *Gouverneur Provincial* to relocate the hospital. He believed that it was impossible to 'réaliser une séparation nette entre les cités européennes et les agglomérations pour gens de couleur, avec le maintien de l'hôpital des Noirs à son emplacement actuel,' a facility that 'de par sa nature même, doit être relégué en dehors des limites des

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156. AA/GG 14927, Note on *Hôpital des Noirs,* report of reunion of the *Chambre de Commerce,* 18 April, 1923.

157. As he said: 'Il est bien certain que, si l'emplacement actuel ne s'imposait pas à nous par l'existence d'un groupe de constructions d'une valeur considérable, je vous proposerais de reculer l'emplacement de l'hôpital d'une centaine de mètres, de façon à laisser entre le quartier européen et le quartier indigène une zone neutre sur laquelle on pourrait créer un parc. Mais nous ne pouvons faire abstraction de ce qui existe déjà.' AA/GG 14927, Letter from *Gouverneur Provincial* to *Gouverneur Général*, 1 May, 1923.

158. Ibid.

159. Beeckmans (2013b, p. 254).

Image 34 . Postcard of *Avenue de la Cité*

European neighbors feared that the functional and simple barracks of the hospital would
devaluate their surrounding residences, such as these villas in the *Avenue de la Cité.*
ca. 1930, www.delcampe.net [21 March, 2020].

agglomérations réservées aux Européens.'[160] Several pieces in a local newspaper,
Le Courrier d'Afrique, similarly expressed how the hospital was 'pas à sa place' and
went against any sound idea of urban hygiene:[161]

> *On ne peut que regretter que l'hôpital des Noirs ait été installé à demeure en plein
> centre de la ville européenne, alors que dans toutes les villes du monde, on écarte les
> hôpitaux des agglomérations, tant pour le bien des malades que pour celui des voisins.*

Clearly, the location of the hospital sharpened the deeply ingrained European
anxieties of the pathologized African body, colonized masses, and the allegedly
dangerous contacts between Africans and Europeans and their housewives. Such
fears, of course, often remained implicit, especially in official publications in
which such xenophobia often coalesced, and was coated with, medically funded

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160. He was backed up by the *Médecin en Chef*, Dr. Trolli, who also thought 'que les cités indigènes et
Européennes devaient être séparées par une bande neutre très étendue au centre de laquelle auraient pu se
trouver unis les hôpitaux et formations médicales.' AA/GG 14927, Note from *Ingénieur en Chef* Itten, 8 March,
1929; AA/GG 15816, Note from *Médecin en Chef* Trolli, 9 March, 1929.

161. AA/GG 15020, *Un nouveau camp pour la police urbaine,* in *Le Courrier d'Afrique*, 23 March 1934; AA/GG
10008, *Un Marché qui n'est pas à sa place*, in *Le Courrier d'Afrique,* January 1942. The latter piece predominantly
dealt with the market – another public facility that was positioned on the "wrong" side of the neutral zone
and incited a lot of critique on its noise, smell, and insalubrious state – yet the same argument was made for
the hospital. In contrast to the *Hôpital des Noirs de Léo-Est*, however, the public market was relocated. See
Beeckmans (2013b, pp. 251-270); Beeckmans and Bigon (2016).

concerns for contamination. The visual presence of the complex within the European cityscape upset and undermined the strict binary colonial order that the colonial authorities were seeking to install during the interwar years. Nonetheless, despite its highly contested location, the hospital was never moved. At a time when the Congolese economy entered a deep recession, the local *Commissaire de District* Wauters, backed up by the *Comité Urbain*, ultimately estimated that the cost of relocating the hospital would be too high.[162]

If the state could not remove the hospital from the European center, it did aim to remove it from public sight as much as possible. The *Gouverneur Provincial* countered the concerns of his officials and the European population by pointing to the 'mur qui cache aux vues des passants et des voisins toutes les installations hospitalières et la vie des occupants.' Later correspondence reveals that the authorities also planned to increase the height of the wall, yet it is unclear whether this project was eventually realized.[163] While the *Clinique Reine Elisabeth* was designed to be clearly visible in Léopoldville's cityscape, the large perimeter wall of the hospital for Africans was constructed to soothe European anxieties. It aimed to seal off the 'unsightly' medical complex and its patients from its European surroundings, hiding a facility that defied and undermined the hierarchical binary order of Léopoldville's interbellum 'sanitation syndrome.' Just as the state deployed the urban planning of the neutral zone to etch racial hierarchies into Léopoldville's urban structure, the design and urban planning of medical architecture for Europeans and Africans aimed to manifest the same colonial asymmetries through strategically opposing politics of in/visibility.

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162. AA/GG 15816, letter from *Commissaire de District* to *Gouverneur Provincial*, 8 June, 1929. The elevated costs of relocating the hospital were not only due to the necessary reconstruction of the hospital, but also because the religious sisters also taught at a school for Africans close to the hospital. Moving the complex would mean recruiting additional personnel.

163. AA/GG 15816, letter from *Gouverneur Provincial* to *Gouverneur Général*, 30 May 1929.

Image 35 . An out-of-place hospital

This map from 1944 depicts another attempt - as occurred and reoccurred throughout the 1930s and 1940s - to reshape the still fragmentary buffer and install a more clear-cut form of racial segregation. This ambition, however, was never fully completed. Meanwhile, the hospital for Africans still continued to be located on the northern, European side of this fragmentary *zone neutre*, inciting an intense coming and going of African patients and visitors across the neutral zone and into the European city.
1944, AA/3DG 859.

Image 36 . Postcard of hospital entrance and wall at *Avenue de la Cité*
1925, http://kosubaawate.blogspot.com/2012/11/[accessed: 21 March 2020].

Unfulfilled politics of in/visibility

Yet, as with so many projects in Belgian Congo, the realization of these politics of in/visibility turned out different than expected, both for the *Clinique* for Europeans as for the hospital for Africans. Despite the efforts to visually hide and separate the *Hôpital des Noirs de Léo-Est* and its patients from the European neighborhood, it was actually the wall that made the complex a sorry sight, at least according to the testimony of journalist Whyms: 'Pour beaucoup, à Kin, l'hôpital des noirs a un aspect rébarbatif dû, pour une bonne part, à une certaine clôture extérieure peu avenance [sic].'[164] Neither did it seal off the smell and sounds of the hospital that many European neighbors had always feared. This is perhaps best illustrated by a sewers issue that puzzled local policymakers for almost five years. Already in 1927, Dr. Mouchet had blamed the African patients for clogging the toilets and sewers. By 1930, the situation had still not improved. *Gouverneur Général* Tilkens compelled the local governor to fix the situation, pointing out that it 'constitue avant tout un danger pour la santé publique, vu la proximité directe de cet hôpital par rapport à la Cité européenne.'[165] A year later, a neighbor published a complaint letter in the local newspaper *L'Avenir Colonial*, comparing the 'odeur qui provient des cabinets de l'hôpital,' with that of a 'charogne,' and warning for the 'danger d'asphyxie' every European passer-by was risking.[166] Even if inspections earlier that year had pointed out that trash thrown in the sewers by European residents further down the street had actually been causing the clogged pipelines of the hospital,[167] the author of the piece continued to suggest that the stench was due to a 'manque de propreté' of the African patients, rather than Europeans illegally dumping their garbage. Despite all efforts to seal off the complex, European inhabitants continued to stigmatize the *Hôpital des Noirs de Léo-Est* as a pathological, insalubrious nuisance. To make matters worse, this perimeter had only one entrance, positioned on the northern side of the complex, the farthest away from *cité indigène* as possible. As such, the hospital incited a constant and very visible coming and going of sick Africans allowed to cross the neutral zone and walk past the European residences.[168] As Whyms described the presence of the hospital and its patients in the European center: 'Aux alentours de l'hôpital des noirs placé contre tout principe d'hygiène en plein centre habité, quelques malades resquilleurs promènent leur livrée verte.'[169] In a single sentence, her description perhaps captures the essence of

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164. Whyms (n.d., pp. 1403-1404).

165. Notice how "public" health was directly equated with "European" health. AA/GG 7325, Letter from *Gouverneur Général* to *Gouverneur Provincial*, 24 May, 1930.

166. AA/GG 14927, *A l'oeil droite du Service d'Hygiène de Kinshasa*, in *L'Avenir Colonial*, 20 October, 1931.

167. AA/GG 7325, Letter from *surveillant principal* to *Ingénieur en chef*, 1 August, 1931; AA/GG 14927.

168. It was only in 1937 that a new entrance with a 'dispensaire et bureau des entrants' was planned, and it would take over ten years to build this modest addition. AA/GG 20458, *Gouverneur Provincial* to *Gouverneur Général*, 14 July, 1937.

169. Whyms (n.d.).

Image 37 . *Léopoldville. Hôpital des noirs. Entrée.*

Although a wall sealed off the hospital complex, African patients and visitors passing along
the perimeter, or taking shelter under the trees next to the complex, remained a thorn in the
eye of European residents.
ca. 1950, MRAC, H.P.2010.8.2286.

how European fears for African contamination coalesced with xenophobic unease
about the visible proximity of the Congolese Other, who, dressed in service
clothes, defied the deeply asymmetrical social order within the colony.

The politics of visibility of the conspicuous *Clinique* wasn't an unambiguous
success either. With the Belgian Congo's economy on its back, the colonial Public
Works Department had had to downscale the design of the hospital complex.
Nevertheless, the cost of the flagship hospital still incited widespread critique.
While among administrators, polemics intensified concerning who exactly was to
blame for 'la mégalomanie qui a présidé à la construction des hôpitaux,'[170] external
criticism on the architectural healthcare policies of the colonial government grew
increasingly louder. A scorching newspaper article aptly titled 'Monstre de Luxe'
sardonically described how the government's megalomaniac attempts to design a

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170. While engineers Devroey and Itten had already put the blame on the *Médecin en Chef* in 1929, the
latter wrote an extensive report proving the innocence of his *Service Médical*, while pointing the finger to the
Minister, the *Gouverneur Général* and the Public Works Department for the errors committed: 'Il me semble
que le Ministre des Colonies et ses services compétents étaient bien décidés à créer un vaste hôpital et qu'ils
prévoyaient eux-mêmes un grand développement futur de la ville. Ce n'était pas au Service Médical de savoir si
cette prévision était erronée.'
AA/3DG 1637, Letter from *Gouverneur Général* to *Ministre des Colonies*, 11 May, 1932 ; AA/3DG 1638, Note
au sujet des prétendus gaspillages dans les dépenses pour construction des hôpitaux de la Colonie, by *Médecin en Chef*
Trolli, 25 May, 1932.

project 'digne de la grande Colonie du Congo Belge' had gone awry. Rooms were empty, the garden was over-scaled and unpractical, and even the grand façade – the center piece of the *Clinique's* 'politics of visibility– was cynically mocked as an expensive, over-scaled pile of concrete: 'Gravissez avec respect l'escalier monumental, votre pied foule 135 tonnes de béton valant 125.000 francs.'[171]

If the conspicuous architecture of the hospital had tarnished the international reputation of Belgian Congo rather than strengthening it, the on the ground effects of its design also undermined its contribution to the state's 'vision of empire.' The economic recession had meant that much of the urban plans for Kalina were put on hold. When the *Clinique* opened its doors, implementation of the *Boulevard Léopold II* was only halfway. It would take another decade before the grand urban esplanade giving out onto the impressive façade of the hospital's convent was finally realized. Similarly, urban development of the surroundings of the hospital barely made any progress during the interbellum. As only a limited number of the residences planned for the new administrative center were realized, other activities were nearly inexistent. Apart from the few patients attending the hospital – it only offered room to sixty beds, many of which were empty – few passersby must have walked passed, and the hospital's visibility colonial officials had implicitly strived for, likely turned out disappointing. It was only with the end of the second World War that this situation would change. Léopoldville and Kalina boomed, the *Boulevard* and the *promenade* were finished, and new activities such as the 'thé dansant' and 'restaurant Galiéma' as one of the hotspots of Léopoldville's European nightlife opened its doors just next to the belvedere, as did several other cafés and hotel bars nearby.[172]

If in reality, the colonial state thus struggled to implement its opposing architectural politics of in/visibility, the underlying ambition nevertheless was clear: to materialize and reinforce the binary colonial order within the capital's medical cityscape. While this chapter focused on how medical architecture was deployed to consolidate colonial asymmetries during the interbellum, an important period of urbanization and industrialization, it also explored a broader, historiographical issue. Most architectural histories of the 'dignified' or of the 'visible politics' of architecture, have focused on highly visible monuments and public buildings. What this analysis of Léopoldville's medical infrastructure suggests, however, is that a state's architectural 'vision of empire' was not only constructed through conspicuous displays of power in the colonial cityscape, but also through architectural measures of rendering invisible spaces (and populations) that were feared to undermine the colonial state's reputation and imagery.

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171. AA/3DG 1649, *Monstre de Luxe,* in *L'Essor Colonial,* 10 December, 1933. The article was a reissue of an earlier piece published in *Le Courrier d'Afrique* (date unknown), suggesting that these critics were indeed fairly widespread.

172. That the 'Restaurant Galiéma' was indeed hotspot of Léopoldville's nightlife, is also confirmed in contemporary tourist guides, see e.g. Houlet (1958).

Image 38 . *Plan de Léopoldville*

It was only after the war that the 'politics of visibility' behind the *Clinique Reine Elisabeth* were truly realized. While before, the hospital was situated in somewhat of a no-man's land, due to the incomplete implementation of the urban plans of Kalina, the area became properly developed in the 1950s, with multiple activities in the surroundings of the hospital that would have attracted an increasingly large number of passers-by. This plan of 1957 gives an indication of these activities: the *Restaurant Galiéma* [72] and the *belvédère* [6] marked the end point of the *promenade de la raquette*, other hotel bars such as the one at the *petit pont* [59] and the *Palace Hotel* [9] livened up the neighborhood, and the *Boulevard Léopold II* was finally finished, taking pedestrians along the *Mémorial Léopold II* [49], and, after its completion in 1959, also the Governor's residence.
1957, AA/Cartothèque 01.

2/LARGE

A blueprint for the 'medical model colony':
The *Plan Franck*

When Louis Franck succeeded Jules Renkin as the new Minister of Colonies a mere ten days after the end of the first World War, he faced a heavy task. About 25 000 Congolese soldiers and more than a tenfold of carriers had taken part – often under force – in the campaign Belgium waged against the German African forces in East Africa.[173] Nearly a tenth of them lost their lives, and many more had suffered injuries or endured the terrible war conditions. The conflict not only struck the troops of the *Force Publique*. While the systems of the *culture obligatoire*, mandated by the Belgian government, had ravaging effects on the rural population, mineworkers in the cities were bending backwards to keep up with the increasing demands for raw resources. If the large mining corporations had reluctantly undertaken incremental steps to improve housing, healthcare and education for their Congolese laborers, the conflict certainly caused any social progress to be put on hold. The aftermath of the World War took an even heavier toll than the conflict itself, as the Spanish Flu disseminated almost half a million Congolese a year after the armistice. But even before the war, financial shortages, conflicting local agendas and a lack of manpower and know-how had meant the overambitious *Plan Renkin* was far from a success, despite the aspirations and goodwill of Franck's predecessor. After a decade of Belgian state governance

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173. Strachan (2007, p. 6); Vanthemsche (2009). On the military missions against Germany, and especially the symbolic victory in Tabora, see Delpierre (2002).

in Congo, most of the colonial territory still lacked roads, railways or public buildings, but above anything else, with a population that had suffered from four years of war, it lacked healthcare infrastructure.

These desperate times required desperate measures, and caused the new Minister of Colonies to propose an extensive public works program for the colony, covering transport infrastructure across the colony and public facilities in the growing urban centers. While such plan wasn't all that new – his predecessor had cherished similar ambitions – the scale and especially its financial backing meant a radical break with earlier policymaking. Whereas the colonial charter clearly stipulated the use of separated budgets for Congo and Belgium – conceived to prevent the financing of Belgian public projects through colonial exploitation capital, as had been the case during the Leopold era – Louis Franck proposed a complete turnaround: that Belgium would now partly fund an important public works program in the colony. To cover the total estimated cost of about 660 million francs,[174] the colonial government would issue international bonds, while the interests of these loans would be 'à charge du trésor belge' and covered by 'une subvention extraordinaire métropolitaine de 15 millions par an – et ce pendant une période de dix années.'[175] To convince Belgian politicians of this sweeping financial policy change, the Minister of Colonies stressed how these investments would eventually benefit the metropole, equating the colony almost to a business venture or an industrial factory: 'Le programme des grands travaux, ... cet outillage nécessaire, ce n'est pas dépenser l'argent du pays, c'est le placer dans une entreprise collective dont le rendement d'avenir ne peut inspirer aucun doute.'[176] As such, the prime goal of the program was to provide Belgian Congo with the infrastructural 'armature économique'[177] that would allow a more efficient 'mise en valeur' of the colonial territory.[178]

Human capital played a crucial role in these extraction logics. Investments in housing and hygiene for Congolese were again explained to the Chamber as the most cost-efficient way of establishing a productive and politically docile local labor stock:[179]

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174. The total cost of a decade of public works eventually amounted up to over a billion francs, of which about 140 million were allocated to 'établissements hospitaliers et laboratoires.' AA/3DG 1637, Budgetary summary of *Travaux d'utilité générale (de 1920 à 1931 inclus)*, 1931.

175. As proposed by Louis Franck in the Chamber of Representatives, 9 December, 1920, p. 152. Taking into account inflation and the public budgets changing over time, Stengers (1957, p. 88) calculated that the amplitude of these estimated costs represented a program 'tout-à-fait comparable à celle de l'actuel Plan Décennal.'

176. Chamber of Representatives, 14 July, 1921, p. 2150.

177. As his successor Henri Jaspar would later call it. See Jaspar and Passelecq (1932).

178. Chamber of Representatives, 9 December, 1920, p. 152. This idiom – which presupposes the absence of 'valeur' before European presence, was common in francophone colonial contexts. See e.g. De Raedt (2017, p. 58). On the 'mise en valeur' of Belgian Congo during the interbellum, see Lagae and Sabakinu Kivilu (2020); Vanthemsche (2020).

179. Chamber of Representatives, 9 December, 1920, 151.

Il n'y a pas de meilleure manière d'obtenir un bon rendement des travailleurs indigènes que de les bien nourrir, de les bien payer et de les bien traiter à tous les points de vue. Par là, l'indigène devient un meilleur client et un meilleur collaborateur.

Such framing of social politics as a capitalist investment, however, may have also been a strategic move to convince reluctant Belgian politicians that Congo could provide war-torn Belgium with an important 'lever for economic rehabilitation.'[180] While this rhetorical branding successfully ensured political support for Franck's program, it may have masked more genuine concerns for the well-being of Congolese inhabitants that had been on the rise shortly after the war. Especially in Belgian Congo, the conflict's ravaging effects on the local population, and perhaps even the camaraderie experienced between white officers and black soldiers during military campaigns, spurred on compassion amongst Belgian *colons* and officials.[181] Still, this changing mentality went hand in hand with extremely paternalistic views that characterized Belgian colonial social policymaking which Bruno De Meulder has aptly described as 'philanthropic self-interest.'[182] Just as metropolitan investments in infrastructure were branded as a 'politique de sagesse et de prévoyance' and had to yield future revenue, Belgian representatives ultimately judged the moral vocation of the colonial 'mission civilatrice' by its economic significance.[183]

Be it through strategic branding, out of genuine philanthropic concern, or a combination of both, Louis Franck successfully persuaded his fellow representatives of his new colonial politics. On the 21st of August 1921, the Belgian Chamber officially adopted by law the vast 'programme de travaux d'utilité publique' – and with it, its progressive financing. With the Minister as the driving force behind the program, which would span over a decade, it later become known as the *Plan Franck*. Extensive research on the topic, however, remains scarce, and the work that has been done is often incomplete, especially when compared to the broadly discussed *Plan Décennal*. Most publications reduce the *Plan Franck* to 'un programme de dépenses à long terme dans le secteur des infrastructures de transport,' and, often due to a lack of in-depth archival research, fail to acknowledge the importance of the program for and through its public healthcare measures.[184]

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180. De Meulder (1996, p. 15). That this was a successful strategy that extended beyond the Chamber of Representatives, becomes clear when inspecting the discussion of the 'Projet du Loi' at the Senate, where the explanation of the law clearly echoed Franck's earlier rhetoric: 'Le principe de cette initiative financière est [...] d'outiller la Colonie de manière à ce qu'elle puisse donner à la Belgique le rendement dont elle est susceptible, comme une usine, qu'on désire faire produire, doit d'abord être montée.' Belgian Senate, 26 July, 1921, n° 220.

181. See e.g. testimonies of Belgian military officers in Habran (1925, pp. 52-53).

182. De Meulder (1996, p. 21).

183. Chamber of Representatives, 9 December, 1920, p. 152.

184. Vanthemsche (1994, p. 56). In contrast to the *Plan Décennal*, no monographs have been published on the *Plan Franck*. Most publications that have directly dealt with the topic, are either from a political or economic point of view. See e.g. Vanhove (1968, p. 37); Vandewalle (1966).

In this **large** scale, I will discuss the development and implementation of the colonial state's healthcare services and infrastructure during the *Plan Franck*. A first section explores which new rural medical systems indirectly spawned out of the *Plan Franck*. Rural healthcare during the interbellum slowly shifted from mobile medical services towards experimentation with an increasingly dense network of rural healthcare centers, which would pave the way for the vast network of hospital infrastructure implemented during the Ten-Year Plan. The two following sections deal with the proper healthcare campaign of the *Plan Franck*, which was mainly focused on medical infrastructure in the colony's emerging urban centers. In response to the unfulfilled promises of the *Plan Renkin,* the *Mission Maertens* had outlined sweeping policy changes that sought to reorganize and professionalize the Public Works Services, especially through a stream-lined system of type-plans of various public building projects.[185] This Taylorist approach to the state's colonial public building program, however, never saw the light of day. Once again, budgetary shortages and a limited manpower plagued the colonial administration. Yet despite these struggles to professionalize the colonial administration, a noticeable number of new hospitals for both Africans and Europeans was still realized under the *Plan Franck*. Retracing how these contrasting realities of unfulfilled professionalization and successful implementation of the 'armature médicale' could go hand in hand, proved difficult and demanded an alternative approach to the archive. Much of the preserved correspondence is incomplete and – especially in a colony that was extremely wary of its international reputation – perhaps mediated, offering only a censored insight on this period. Nevertheless, plans of medical infrastructure, I argue, offer a glimpse past these biased policy documents and correspondence. Colonial officials made do with the limited financial means and staff available. Instead of designing hospital projects from scratch, they exchanged and recycled old plans from other provincial branches, often making local, off-hand adaptations and interventions on these plans. While the colonial government never officially formulated such an improvised *modus operandi*, as it sought to establish and reinforce its image of a 'Bula Matari' or potent colonial power, it seems that these practices of improvisation were nonetheless key in effectively founding an 'armature médicale,' and supporting the colonial extraction economy of the interbellum.

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185. See 1/L.

Experiments of rural healthcare infrastructure

The *Plan Franck* scheduled transport infrastructure in both urban and rural areas, connecting important agricultural production centers with urban transport hubs. The 'établissements hospitaliers' inscribed in the *Plan Franck*, however, were limited to provincial capitals and districts seats – mostly emerging or well-established urban centers.[186] Rural healthcare infrastructure did not feature on the building program of the interbellum, despite the fact that fighting sleeping sickness in the Congolese hinterland continued to be a priority, and that in the years before, numerous lazarettos had been realized. Nonetheless, the *Plan Franck* brought about an important reorganization of the *Service Médical*, which would not only prove an important catalyst for the development of the colony's rural healthcare system during the interbellum, but also a crucial learning ground for the medical infrastructure constructed in the post-war period.

While the *Direction des Services Médicaux* had still been a satellite division of Brussels with little clout over local policymaking, this drastically changed in 1922. From then on, the Medical Service became an independent branch of the Congolese government and an increasingly important soundboard of the new *Gouverneur Général* Maurice Lippens. That the Service became an autonomous organ within the colonial bureaucracy probably had the biggest consequences for doctors operating in the colonial hinterland. Before, 'les médecins résidant à l'intérieur étaient placés sous les ordres directs des autorités territoriales' and still had to comply to the decisions of lower-ranked territorial agents.[187] From 1922, however, local doctors became part of the autonomous provincial Medical Service, and directly fell under the *Gouverneur Provincial*. All of a sudden, the authority of local physicians expanded immensely. On decisions related to public health, district commissioners and territorial agents now had to follow the advice of the local doctor – granted that he had the Governor's support. This could range from obvious policy choices on public health or medical infrastructure, sanitary spatial interventions such as the *débroussement* of outposts, to even the construction of a local road network or completely moving villages which the doctor deemed too insalubrious.

As the power, prestige, and working conditions of local colonial physicians improved, the colonial government successfully recruited an increasing number of doctors to combat sleeping sickness, perhaps the main priority of the Medical Service at the time. In the beginning of the century, the colonial government had used lazarettos as a way of quarantining sleeping sickness patients, but this policy quickly turned out disastrous. Moving patients to these isolated posts actually

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186. See e.g. AA/3DG 1637, Budgetary summary of *Travaux d'utilité générale (de 1920 à 1931 inclus)*, 1931.
187. As Dr. Trolli, *Médecin en Chef* from 1925 until 1931, later deplored. Quoted in Dubois and Duren (1947, p. 6).

expedited the distribution of the disease.[188] As lazarettos functioned almost as prisons and the use of atoxyl as medicine made one-third of the treated patients blind, Africans quickly 'perceived them as "death camps" from which the only exit was the grave. Understandably, the most common response to the European public hygiene policy of isolation was avoidance and flight,'[189] again spreading the epidemic to villages neighboring the lazaretto. From the 1910s onwards, the colonial government changed its approach and increasingly relied on a mobile 'traitement ambulatoire,' while lazarettos – rebranded as 'villages-lazarets' – were only used for incurable cases.[190]

With the rise of new, and more effective medical treatments for sleeping sickness,[191] this mobile method of public healthcare turned into an efficient way to cope with the very specific conditions and challenges of Belgian Congo. Not only did the 'dispersion considérable des populations sur des espaces très étendus' complicate 'la concentration des malades dans les formations médicales fixes,' the harsh precedents of incarceration at the lazarettos had, as said, also aroused Congolese suspicion towards European healthcare methods. As a result, ambulatory treatment proved not only more efficient, but also 'beaucoup mieux accepté par les indigènes.'[192] In regions where sleeping sickness had been observed, new équipes mobiles were installed, covering a rising number of *cercles médicaux* – a geographic unit that roughly coincided with the administrative subdivision of the territory. Led by a doctor and comprised of a sanitary agent and several Congolese nurses and aids, these mobile squads were tasked with what became known as the *recensemment médical*, a combination of medical inspections and demographic surveys. Travelling from village to village, the doctor or the European *agent sanitaire* medically examined the inhabitants, and handed out a sanitary passport that contained his or her medical record. When treatment was necessary, sanitary agents or Congolese nurses would return to the villages for the necessary

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188. As a report of such mobilization of patients reveals, this was done in 'une moustique de huit mètres de longueur sur deux de largeur, sous laquelle les malades, alors au nombre de trois, étaient isolés en attendant leur départ.' The contaminated cases were then gathered on isolated islands in the Congo River, which not only flooded occasionally, but, as the report itself notes, were also frequented by tsetse flies, again helping to spread the disease.

189. Lyons (1985, p. 81).

190. Rodhain (1950, p. 705); In a letter addressed to the *Gouverneur Général*, Minister Renkin had marked the beginning of this important policy shift, acknowledging how lazarettos had indeed been functioning as prisons: 'En vue de parer aux difficultés que présente l'internement des malades, et la répugnance des noirs envers un régime de l'espèce, les lazarets ne seront plus clôturés et devront constituer à l'avenir, des villages-lazarets où les noirs en traitement, vivront en liberté avec leurs femme et enfants. Les malades recueillis dans ces établissements, seront ceux gravement atteints, les invalides, les incurables.' AA/H 842, Letter from *Ministre des Colonies* to *Gouverneur Général*, 17 January, 1910.

191. 'L'emploi du Bayer 205, qui paraît doué de propriétés prophylactiques considérables, favorisera la prophylaxie et il est actuellement permis d'envisager la solution prochaine de cet angoissant problème que constituait pour le Congo Belge la trypanosomiase humaine.' *Rapport Annuel,* 1922, p. 23 ; on the effects of Bayer 205, see also Burke (1992, p. 115).

192. AA/3DG 984, *Evolution de nos méthodes d'assistance médicale dans les zones rurales de la colonie*, report presented by Dr. Duren to the Congrès Colonial, September 1947.

injections and medical follow-up. Every semester, the équipe returned for check-ups, and updated the passports of the inhabitants. While in the years immediately after the war, the équipes mobiles were limited to the most threatened regions, by 1926, most *cercles médicaux* affected by trypanosomiasis were inspected every six month by European state agents, often in collaboration with a rising number of missionary workers. Of the 97 state doctors, 40 were active in the *recensemment médical*, and together with 134 sanitary agents, they ensured the examination of over two million Congolese villagers a year. This number only increased: by the beginning of the second world war, the colonial Medical Service reported that over five million African inhabitants were now being checked annually, while contamination indices continued to drop.[193]

The *recensemment médical* marked drastic changes for Belgian Congo's rural population. For many Congolese, this meant the first intimate contact with the colonial authorities, and a first entanglement with colonial bureaucracy. In the rural regions where sleeping sickness was endemic, the state morphed from remote hearsay about a 'Bula Matari' into a doctor who not only felt Congolese glands, but also noted names and ethnicity, and handed out medical identification papers. Hoping to curb contamination, the colonial state had introduced this medical identification in the 1920s as yet another measure in the combat against sleeping sickness.[194] Without a permission stamp from the state on their medical passport, Congolese villagers – healthy or sick – were no longer free to travel across their homeland. In a region that had long been marked by high mobility, the state tried to actively curtail 'native nomadism,' a measure not only aimed to halt the spread of endemic diseases such as sleeping sickness, but also designed to secure fixed and easily governable labor pools that could be tapped for the rising rural economies of palm oil or copal collection.[195]

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193. Burke (1992, p. 101); Rodhain (1948, p. 1461). However, how accurate these surveys actually were was already being questioned by colonial doctors such as Dr. Schwetz and Dr. Nolf, who stated that expecting that the *recensemment* reflected the demographic reality, was simply 'rêveur.' AA/H 4426, Report on *La protection médicale de la main d'oeuvre indigène*, August, 1928.
Nonetheless, these results were eagerly deployed by the colonial state in publications on its public healthcare service, and, featuring in many recent historical work, continue to confirm Belgian Congo's reputation of a 'medical model colony' to this day. What the colonial government and many contemporary publications omit, however, is that colonialism itself may have actually spurred on trypanosomiasis epidemics in the late 19th and early 20th century (Headrick, 2014), despite the fact that some colonial doctors already suspected this link (Hunt, 2016).
194. Burke (1992, p. 106).
195. Henriet (2015, p. 345). The importance of a healthy *main d'oeuvre*, which went far beyond philanthropic concerns, was acknowledged on this local level as well: 'Il est inutile d'insister sur l'intérêt tant philantropique qu'économique qu'il y a à avoir une population indigène saine et abondante, réservoir ou nous pourrons puiser la main d'oeuvre indisepensable pour la mise en valeur de la colonie.' AA/RACCB 1008, *Note sur les dispensaires ruraux de la Province Orientale*, 1924. As will be discussed in 3/L, however, these measures did not necessarily mean that Congolese mobility could effectively be halted. As Mathys (2014) has shown, during the early 1920s and 1930s, the colonial government struggled to monitor every Congolese on the move, a situation which continued well until the 1950s. Similarly, Hunt (2016) has shown how copal collection caused rural populations to relocate to and hide in inaccessible marshlands (see also S. H. Nelson (1994)).
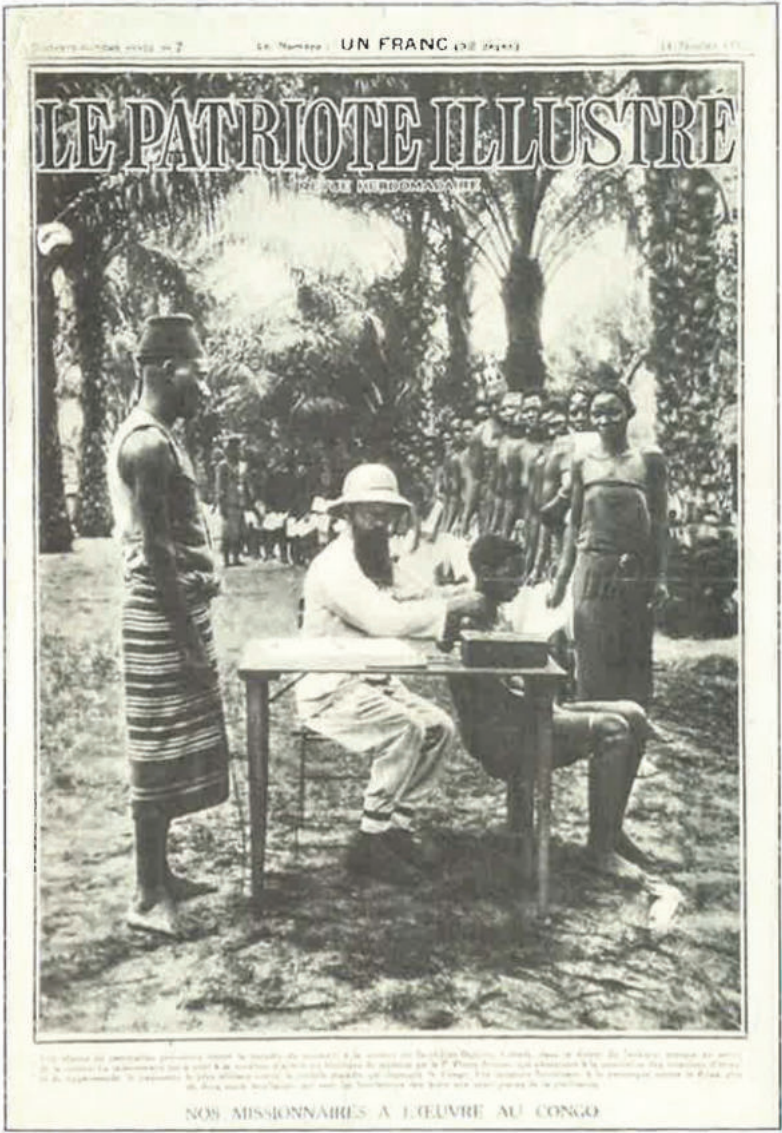
Image 39 . Medical inspections by the *équipe mobile*

During the 1920s, the *recensement médical* became widespread in rural Congo, as mobile squads of doctors and medical assistants passed through numerous villages, medically inspecting inhabitants, handing out medical certificates and collecting demographic data and biostatistics in the process. This *recensement médical* was also explicitly used in colonial propaganda such as this cover of *Le Patriote Illustré* of 1932. That these *équipes mobiles* and the increased overall mobility caused by colonialism itself may have actually spurred on trypanosomiasis epidemics in the late 19th and early 20th century, and that several colonial doctors were likely aware of this, was of course omitted in such colonial propaganda. (Headrick, 2014; Hunt, 2016).

In the *Province Orientale*, a region less acutely affected by trypanosomiasis, the colonial Medical Service adopted a somewhat different, yet complementary strategy. This approach would later become known as the 'système belge' and defined the basic principles of medical infrastructure constructed during the renowned post-war period. While mobile squads still travelled across the territory, a network of rural dispensaries also offered low-threshold primary care to African villagers. Always operated by a Congolese 'infirmier principal diplômé,'[196] these medical outposts were meant to make Western medicine, with its alien practices of hospitalization and examination, more familiar to Congolese inhabitants. In the beginning, the rural population treated these often invasive Western methods with suspicion and even hostility, which comes to no surprise given its violent history of incarceration, mandatory migration and forced immunizations. As a result, the reach of these dispensaries was limited when the network was first implemented in 1924, but – according to Dr. Rodhain, former *Médecin en Chef* – quickly improved, as 'la défiance des indigènes vis à vis d'un traitement long, exigeant la présence régulière aux séances d'injections et de ponctions lombaires répétées disparut peu à peu devant la constatation des résultats obtenus.'[197]

Because of the limited scale of these dispensaries, it seems that their design was rather determined by the *médecin itinérant* on the spot, than by architects or engineers from the faraway provincial or central Public Works Service. More often than not, these primary care centers were located in remote corners of the Congolese hinterland, and shipping in building materials from Belgium or Léopoldville was too costly. Similar to what I've described under 1/A, these material shortages, and the fact that construction workers were mostly drawn from neighboring villages, meant that doctors often resorted to local building materials and vernacular building techniques. Walls were either constructed from wattle and daub – called *en pisé* – or from stacked and plaited bamboo or twigs. In both cases, the structural beams protruded out of the walls and optimized ventilation, a technique often used in African villages. Thatched high roofing covered the extensive verandas – likely an addition of European doctors, although such roofed outer spaces did exist in some local building traditions.[198] While these ways of construction were perhaps not seen as 'durable' or hygienic for medical infrastructures,[199] they were nonetheless of crucial importance. With a limited budget, difficulties to transport building materials and shortage of personnel skilled in European, allegedly 'durable' building techniques, the

196. AA/RACCB 1023, *Rapports Annuels* of several *cercles médicaux* in the Province, by Dr. Grosjean, 1939.

197. Rodhain (1948, p. 1461).

198. See e.g. the description of houses of what the unknown author called the Niam-Niam tribe in *Le Congo Illustré,* 1893, p. 10.

199. This becomes clear from the annual reports of the various *secteurs médicaux* in Orientale: the *médecin itinérant* described the state of every medical outpost, indicating which buildings were still in 'matériaux du pays' and which in European building materials. AA/RACCB 1023, Various *Rapports annuels* of varying *secteurs médicaux.*

Image 40 . *Salle de consultation, dispensaire de Mavula, décembre 1924*
AA/RACCB 1008.

Image 41 . *Salle de malades, dispensaire de Benganusa, décembre 1924*
AA/RACCB 1008.

Image 42 . Network of medical infrastructure in FOREAMI's first *zone d'activité*
FOREAMI, Rapport Annuel sur l'exercice 1933, Annex 1.

Image 43 . *Singa Nzandi, Dispensarium*
FOREAMI, Rapport Annuel sur l'exercice 1931, p. 41.

colonial authorities could simply not do without local building expertise during the construction of this first medical network.

The success of this first tentative network of primary care provided an important learning ground for a more systematic approach from the 1930s onwards, when the parastatal organization of the *Fonds Reine Elisabeth pour l'Assistance Médicale aux Indigènes du Congo belge* (FOREAMI) was founded in 1930.[200] Similar to the *Plan Franck*, the FOREAMI was funded through colonial loans and Belgian state donations, but now at the initiative of the new Minister of Colonies, Henri Jaspar.[201] The Minister based his proposal on an influential report written by Dr. Nolf during a trip two years before, where he had accompanied the royal couple through Congo. In the report, the doctor called for a more efficient 'croisade contre la maladie du sommeil' through more targeted action.[202] This idea would become the main philosophy of the parastatal organization, which focused on one particular region at a time, instead of developing a rural network of travelling doctors and dispensaries across the complete colonial territory. In the target area, the organization's staff offered '"integral" medical assistance' not only for trypanosomiasis, but all endemic tropical diseases through a broad array of public healthcare measures.[203] These ranged from implementing a more intensive version of the *recensemment médical*, or constructing a hierarchic network of medical infrastructure with hospitals and satellite dispensaries based on earlier experiences of the *Province Orientale*, to even building roads and bridges to connect these medical outposts. After periods of about five years, the FOREAMI handed over the built infrastructure and the public healthcare services to the colonial government, and moved on to a new target region. In the earliest zones, the approach of FOREAMI to the construction of the many remote dispensaries was comparable to the state dispensaries in Orientale: the parastatal organization relied heavily on local building materials and techniques to erect already the first primary care centers. Moreover, as these dispensaries often did not offer spaces for hospitalization, Congolese inhabitants constructed huts in which patients, and perhaps even escorting relatives, could spend the night. As such, it seems that Congolese precolonial healthcare practices, in family members accompanied and supported patients, transformed these dispensaries into new, makeshift rural centers:[204]

> On their own initiative, the natives construct huts surrounding these already busy dispensaries in which sick family members could find shelter. This explains how some dispensaries have grown and can offer space to over thirty natives.

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200. Burke (1992).

201. *Biographie belge d'outre-mer* 1968); Stengers (1957, p. 782); Trolli (1935, pp. 100-101).

202. It was during this trip that Dr. Nolf interchanged with *Médecin en Chef* Dr. Trolli, who was already advocating for a system of targeted action. Burke (1992, p. 107) AA/H 4426, Report by Dr. Nolf on *La protection médicale de la main d'oeuvre indigène*, August, 1928.

203. FOREAMI, *Rapport Annuel sur l'exercice 1931*, p. 7.

204. FOREAMI, *Rapport Annuel sur l'exercice 1931*, p. 41.

Once again, these improvised construction practices may provided an important learning ground for future hospital construction policies. As will become clear in 3/L, post-war hospital plans included a 'caravansérail' that was specifically destined to offer space to accompanying family members. During the interbellum, however, these informal hut constructions and local building techniques were still only reluctantly tolerated, and as the program of the FOREAMI progressed, increasingly stringent spatial criteria were being implemented for these rural healthcare nodes.[205] By 1939, most of the buildings of the FOREAMI were not only constructed with imported European building materials, but likely also followed standardized type-plans the parastatal organization had developed.[206]

The restructuring and decentralization of the *Service Médical* during the 1920s had effects reaching far beyond the scope of the *Plan Franck*. Local doctors were given more authority, which facilitated recruitment, boosted the *recensement médical* and transformed the image and biopolitical presence of the state in rural Congo. Moreover, especially in the *Province Orientale*, the growing importance of the *médecin itinérant* greatly increased their impact on public space and medical architecture, and led to the later 'système belge' further refined under the FOREAMI. The repeated experimentation within shifting target zones, organized by this flexible parastatal organization unencumbered by a ponderous bureaucratic state structure, would prove a vital learning experience for the public healthcare system in rural Congo. With its combination of mobile healthcare and hierarchic medical infrastructure, the FOREAMI essentially paved the way for Belgian Congo's post-war healthcare network, and its reputation of a medical model colony.

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205. Floors had to be cemented, the main ward had to measure a minimum of 20 m², and a veranda of minimum 3 m wide had to be installed. FOREAMI, *Rapport Annuel sur l'exercice 1931*, p. 40.

206. These plans, however, have not been found. Nonetheless, various pictures found throughout FOREAMI's annual reports from 1939 onwards, suggest that type-plans were being reused to construct the multiple and very similar doctor's residences, dispensaries and additional wards. Moreover, such type-plans were certainly deployed by the parastatal organization throughout the 1950s, as will be explained more thoroughly in 3/L.

Administrative challenges after the Mission Maertens

If Belgian Congo's rural network of équipes mobiles and dispensaries spun off from the *Plan Franck*'s bureaucratic reforms, the plan itself only focused on the construction of medical infrastructure in the colony's urbanizing centers. Building further on earlier attempts of the *Plan Renkin*, the program again envisioned a hierarchic network of public healthcare based on the administrative subdivision of the colonial territory. This subdivision had now changed, and during the 1920s, the colony counted four large provinces divided into 21 smaller districts. In every of the 'chefs-lieux de province d'hôpitaux parfaitement aménagés pour Européens et pour Indigènes,' were to be constructed, while in the 'chefs-lieux de district,' smaller 'dispensaires-hôpitaux pour Blancs et d'hôpitaux pour Noirs' were being planned.[207]

To execute this vast and unprecedented scheme, the colonial government needed to extend the embryonic administrative apparatus that had existed in the 1910s. The proposal of Hector Maertens from 1913 in response to the debacle of the *Plan Renkin* became the main guideline for such an administrative reorganization.[208] Several of his suggested measures aimed to professionalize the Congolese Public Works Department. Firstly, the *Service des Travaux Publics* had to become a distinct department, separated from the *Service de la Marine* and divided into several sections, including the *Section des Bâtiments Civils* – a decision already implemented in 1916. Secondly, a database of type-plans had to be developed for this new *Section*. This Taylorist approach to colonial policymaking would help to streamline the construction of public buildings and relief some of the work pressure of the Public Works Service's officials. Yet with this administrative autonomy and database also came new bureaucratic responsibilities. Financial requests had to be clearly substantiated, through standardized plans and an additional motivation. Once attributed, the overall budget had to be more tightly monitored and recorded, with separate entries for recurring costs under the *Budget Ordinaire* and for one-time investments – such as those of the *Plan Franck* – under the *Budget Extraordinaire*. Lastly, a *Service du Contrôle* was organized. Headed by Maertens' right hand Paul Closet, and 'chargé d'enregistrer toutes les dépenses engagées [...] pour l'entreprise des Grands Travaux d'Utilité Générale,' this controlling body located in Brussels was specifically aimed at monitoring building expenses more closely in an attempt to hold local authorities accountable.[209]

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207. Rapport Annuel, 1923, p. 18.
208. See 1/L.
209. AA/3DG 1337, Note on *Dépenses extraordinaires*, by Paul Closet, 29 July, 1922.
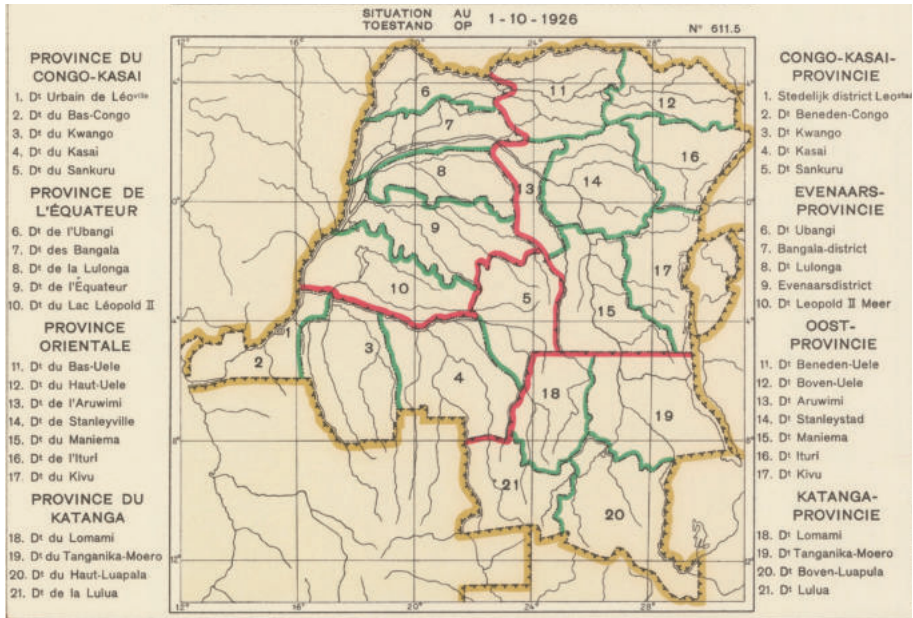
Image 44 . *Carte administrative du Congo belge,* 1926
AA/Cartothèque 384/7021.

Despite this increased central control, Maertens' plan was part of a larger shift towards decentralization, as he attributed increasing responsibilities and authority to provincial departments and district commissioners.[210] Local architects and engineers had to become the crucial cogwheels in the Public Works Service, assisting district commissioners and provincial departments in all decisions related to public works. Maertens, however, not only failed to acknowledge how such a massive recruitment was simply incompatible with Belgian Congo's budgetary possibilities, he also greatly overestimated the number of Belgian architects or engineers that were actually keen on working in the colony.[211] Despite the huge construction program, the number of architects working for the state indeed remained very limited during the interbellum. For Congo's twenty one districts, four provinces, and central government in the capital, the number of architects varied between six to seventeen from 1921 to 1931, to drop to four in only two years' time when the economic crisis hit the colony.[212] With this limited corps of

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210. For an introduction to changing policies of centralization and decentralization in the Belgian colony, see Vellut (1974, pp. 114-115).

211. To some extent, Maertens was aware of the 'idealized character' of his recruitment proposal, mentioning that 'Il est évident que l'observation absolue de cette règle ne sera possible que lorsque nous aurons un cadre suffisant d'architectes.' As a transitional arrangement, he suggested 'équipes mobiles' temporarily designated to those district commissioners who needed technical assistance. Nonetheless, he proposed stern selection criteria for aspiring colonial architects and listed a demanding task description – architects were expected to draw topographical maps, formulate local building needs, draw (type)-plans and oversee construction. These demands, paired with a general disinterest in colonial architecture among Belgian contemporary architects (Lagae (2002, pp. 45; 56-59)), suggests that Maertens somewhat underestimated the issue.

212. Lagae (2002, p. 45).

technical personnel active in the colony, it is hardly surprising that the staff of the Public Works Service not only struggled to realize building projects within the predetermined time limit, but also proved incapable or unwilling to adhere to the new and demanding administrative regulations. As Closet observed:[213]

> *Il a été constaté que les complications qui ont embrouillé la comptabilité des recettes et des dépenses de la Colonie proviennent plutôt de l'inobservation des règles fondamentales qu'impose l'exécution méthodique des lois budgétaires, que d'autres causes. L'innovation de l'imputation transitoire préconisée par le système de comptabilité budgétaire adopté en 1917 a donné des résultats désastreux en ce qui regarde l'établissement des comptes annuels des budgets parce qu'elle a été interprétée erronément par la plupart des services d'exécution, tant dans la Métropole que dans la Colonie.*

Administrative procedures simply seemed too complex, not only for the central colonial government, but especially for the provincial and local cadres, who had many other duties to attend to. On several occasions, the Ministry urged the *Ingénieur en Chef* Itten to send through long-due budgetary reports to Brussels, yet time and again, Itten was forced to explain that 'c'est impossible, car [...] les Gouvernements provinciaux ne nous tiennent presque plus au courant de la mise en chantier et de l'achèvement des travaux prévus au Budget Extraordinaires.'[214] Moreover, a rigorous separation between expenses for the *Budget Ordinaire* and the *Budget Extraordinaire* quickly proved artificial and practically unfeasible in the provincial and district departments. On the ground, the few local architects and personnel had to operate as jacks-of-all-trade, performing a panoply of tasks that were hard to strictly define as either recurring or one-time costs.[215] The new administrative regulations undoubtedly further complicated this intense workload, and were likely the first tasks that local personnel brushed aside when the work pressure became too high. As Itten explained, the strict accountancy procedures the Ministry and Hector Maertens had envisioned, simply proved ill-suited for the messy reality of building in Belgian Congo: [216]

> *Je doute que nous puissions obtenir un état de répartition rigoureusement exact, car le personnel technique: ingénieurs - architectes, surveillants de travaux, artisans, coopère au cours d'un exercice budgétaire à l'étude ou exécution de travaux émargeant aux deux budgets. En tout cas, il n'est pas possible d'envoyer à Bruxelles ainsi qu'il est demandé, une situation du personnel attaché aux grands travaux (B.E.) pour la simple raison que des mutations se constatent mensuellement dans la répartition du personnel technique, alors que la dite situation doit servir de base à la répartition annuelle des dépenses engagées.*

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213. AA/3DG 1337, Note on *Dépenses extraordinaires*, by Paul Closet, 29 July, 1922.

214. AA/3DG 1337, Letter from *Ingénieur en Chef* Itten to *Ministère des Colonies*, 19 February, 1923.

215. Moreover, some technical personnel was specifically recruited for large and one-time projects – and thus booked under the *Budget Extraordinaire*, but when arriving in the colony, they nonetheless cooperated on the everyday tasks of the *Budget Ordinaire* to cope with the shortage of staff. Ibid.

216. Ibid.

Similarly, the development of a Taylorist database of type-plans also proved incompatible with the on the ground reality. At first glance, type-plans would offer a cost-effective tool to implement the *Plan Franck*, and especially its medical program, with its numerous yet very similar hospital projects. Nevertheless, this standardized process somewhat clashed with the decentralization Maertens had in mind. Although lower-ranked administrators were responsible of determining a *plan de campagne* for their local region, the fixed and centralized database of type-plans offered them little leeway for a tailor-made, localized design. Together with the lack of skilled personnel, these tensions of decentralization may explain why, in contrast to the *Plan Renkin*, the development of type-plans for hospitals got off to a slow start. In 1921, the official launch of the program, the central colonial government certainly did not undertake immediate steps to develop standardized plans, even though several district hospitals of comparable scale had already been inscribed in the *Budget Extraordinaire*.[217]

It was only when *Gouverneur Général* Lippens personally complained to King Albert about the 'deplorable state of hospitals,' that the provincial Public Works Service of Katanga, rather than the central authorities, took initiative to develop a first set of hospital type-plans.[218] After inspection of the various outposts where hospitals had been planned, Dr. Valcke, head of the provincial *Service Médical*, decided that 'schémas uniformes' would provide the best solution to realize the challenging building program.[219] While it seems that these type-plans did find their way to the central government in Boma – and were slightly adjusted by the *Médecin en Chef*[220] – it is not clear whether the *Gouvernment Général* actually planned to use these after reception. Neither is it clear if other provincial branches simultaneously developed similar plans – if so, I haven't discovered any in the archives. In 1930, the Katangese services again designed a second set of type-plans, yet once again, it is unclear whether these were also adopted by the central authorities or other provincial branches.[221] In any case, it seems that a systemized database of type-plans was never properly developed or deployed during the interbellum, as the archives leave no trace of a single district hospital effectively realized according to these plans.[222]

217. AA/3DG 1337, *Travaux inscrits aux budgets ordinaires, 1921 – 1923.*

218. Quoted in: Vanthemsche (2008, pp. 40-41).

219. From his letter, it becomes clear that it was the *Médecin Provincial* who decided where these hospitals had to be constructed, and how big they would be – again revealing the clout of colonial doctors as spatial specialists. AA/GG 16850, Letter from *Médecin en Chef* Dr. Valcke to *Gouverneur Provincial,* 6 Februari, 1923.

220. In an internal note, *Médecin en Chef* Rodhain mentions that Dr. Valcke had sent him a set of type-plans for both Europeans and Congolese, and added several remarks concerning both. From his added sketch, it becomes clear that it were indeed the Katangese type-plans that were under consideration. AA/GG 16850, Note from *Médecin en Chef* Dr. Rodhain to *Gouverneur Général*, 19 April, 1923.

221. This time headed by new *Médecin Provincial* Van Hoof, who would especially in the post-war period prove a firm believer of the use of type-plans, a view that was perhaps rooted in these early experiments with standardized plans. AA/GG 15920, *Hôpital pour Indigènes, Plan type d'ensemble*. With red crayon, the plan was adapted for construction in Malonga, but it is unclear whether it was ever effectively realized.

222. AA/GG 15920.

The limited correspondence that does exist on the *Plan Franck* conjures a grim picture: budgetary problems, constant shortages of technical personnel, overly complicated and ill-suited bureaucratic procedures, failing control over local decision-making and a lacking standardized system for construction and design. And yet, throughout the decade, over 35 000 kilometers of railways and roads were realized, the capacity of harbors more than tripled, cities were expanded and equipped with electricity and sewer systems, and an impressive 'armature médicale' was realized, with over thirty new or refurbished hospitals for Africans, eleven *dispensaires-maternités* and ten large or smaller hospitals for Europeans.[223] Even if the planned administrative professionalization of the *Plan Franck* was never implemented, it nevertheless resulted in an extensive list of realizations that supported the wider extraction economy. This of course begs the question: if the colonial government could or did not adhere to Maertens' rigorous plans for Taylorist professionalization, how then was this unprecedented program of public works realized? And how to surface and chart such an implicit modus operandi – one that did not follow official guidelines, but was all the more successful – when colonial officials never officially articulated such informal practices, and perhaps even consciously kept these off the (archival) record?

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223. For a more detailed overview of the roads, railways and waterways realized under the *Plan Franck*, see Van Leeuw (1932, pp. 19-29). On the evolving network of medical infrastructure, see: AA/H 4390, *Liste des établissements hospitaliers existant ou en voie de construction dans la colonie*, 1 December, 1927; AA/H 4390/179, *Liste des établissements hospitaliers du Congo belge en 1920*; AA/RACCB 807; AA/RACCB 882; AA/RACCB 955; AA/RACCB 1001; *Relevé des Hôpitaux et Lazarets d'après les inventaires de la Colonie* in respectively Equateur, Katanga, Léopoldville and Orientale provinces, 31 December, 1917.
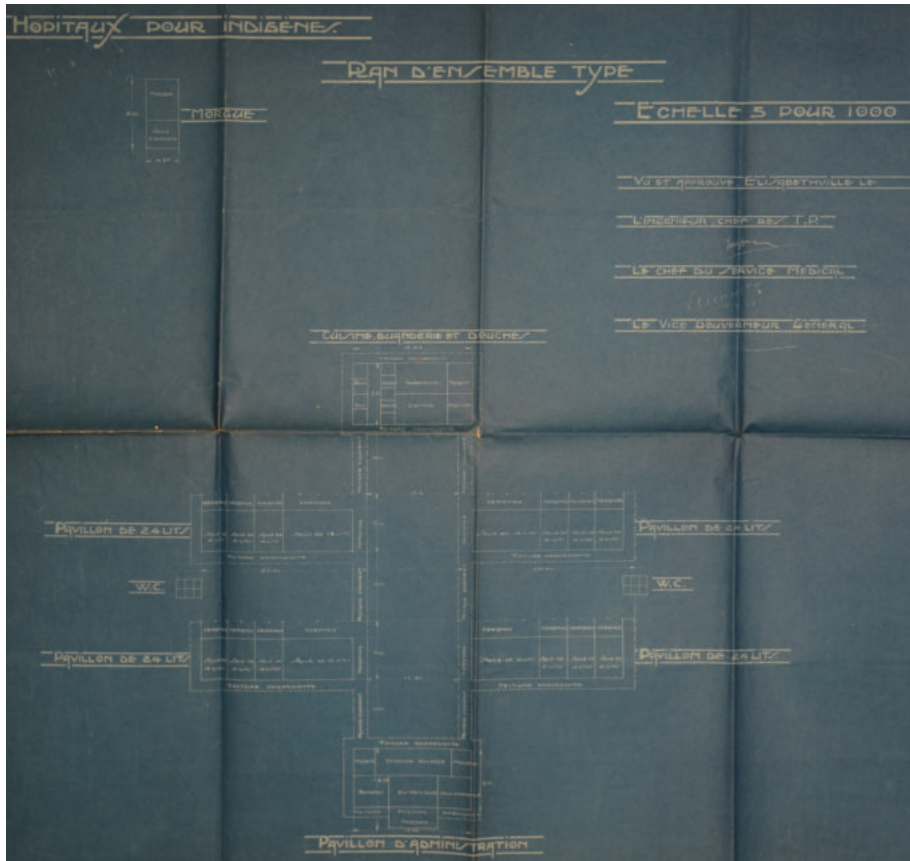
Image 45 . *Hôpitaux pour Indigènes, Plan type d'ensemble*
1923, AA/GG 15920.

Image 46 . *Hôpitaux pour Indigènes, Plan type d'ensemble*
1930, AA/GG 15920.
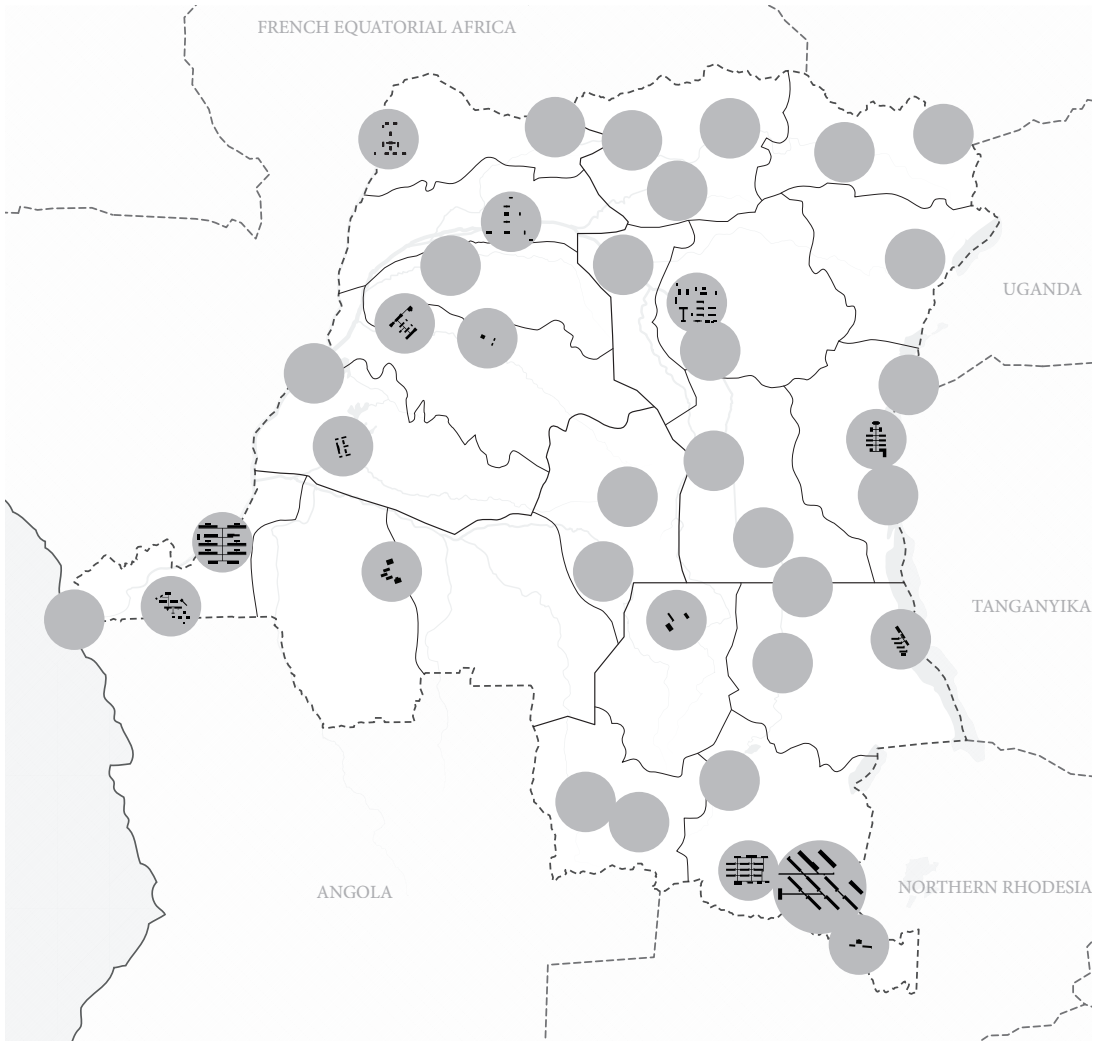
Image 47 . Hospital infrastructure for Africans realized or extended under the *Plan Franck*

Blank dots indicate hospital infrastructure that was realized under the *Plan Franck*, but of which no concrete footprints or plans could be retrieved. Footprints that are drawn have are based on both the government's annual reports, and various archival sources:

AA/H 4390, *Liste des établissements hospitaliers existant ou en voie de construction dans la colonie*, 1 December, 1927; AA/H 4390, *Liste des établissements hospitaliers du Congo belge en 1920*; AA/RACCB 807; AA/RACCB 882; AA/RACCB 955; AA/RACCB 1001; *Relevé des Hôpitaux et Lazarets d'après les inventaires de la Colonie* in respectively Equateur, Katanga, Léopoldville and Orientale provinces, 31 December, 1917.
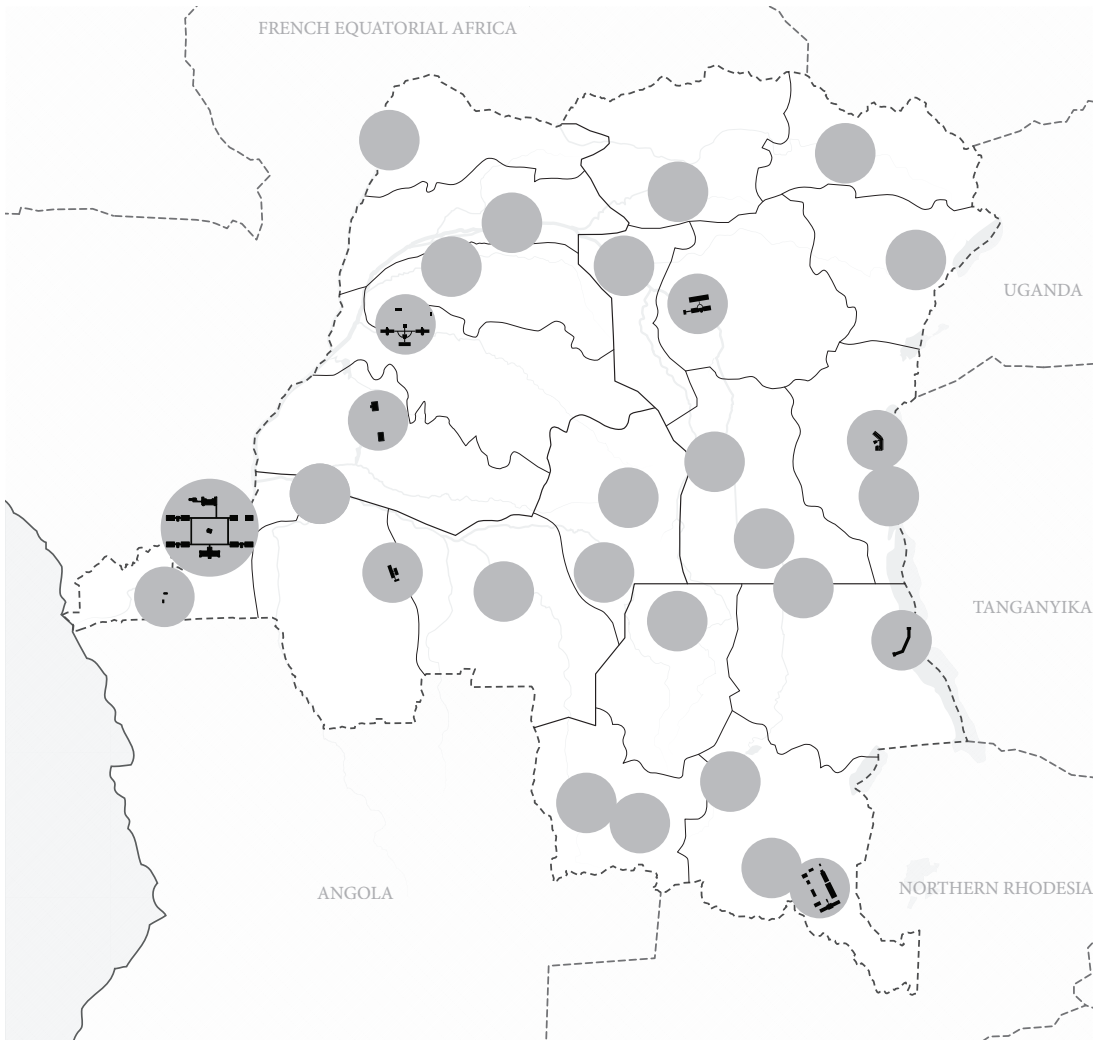
Image 48 . Hospital infrastructure for Europeans realized or extended under the *Plan Franck*

Blank dots indicate hospital infrastructure that was realized under the *Plan Franck*, but of which no concrete footprints or plans could be retrieved. Footprints that are drawn have been based on a variety of sources, varying from specific hospital plans, urban plans in which the contours of the hospital were drawn, to both historical and current-day photographs.

AA/GG 15920; 18186; 14776; 14787; 22315; 12374; 15840; 1233; 15316; 16336; 15899; 1649; 12641; 936; 14933.
AA/3DG 1231; 1649; 1333; 1152; 1183; 1075; 982.

Plans in circulation: an improvised modus operandi

While correspondence on the implementation of urban medical infrastructure under the *Plan Franck* is scarce, construction plans offer an alternative source to uncover the underlying, informal *modus operandi* behind the interbellum's medical construction program. Although mostly without any accompanying correspondence, many of these drawings contain small annotations, pencil notes or traces of copying procedures. Often in the margins, these innocuous marks provide vital information about which provincial department drew or copied the design for which hospital project, allowing to trace the surprising trajectories of architectural plans used across the colony to construct medical infrastructure. Charting the itineraries of these plans in circulation, now scattered across the colonial archive, reveals how the *Plan Franck* was much more realized through practices of trial-and-error and making do, than through calculated planning or administrative rigor. Across the colony, members of the various branches of the Public Works Service and the *Service Médical* were coping with financial shortages and a lack of technical staff, and were forced to rely on offhand practices of recycling, borrowing, and reassembling existing designs, rather than deploying a streamlined systematic database of standardized type-plans.

Elisabethville's hospital for Africans forms an important starting point to trace the trajectories of these plans in circulation – which are depicted in the next pages. Founded in 1910, the city had exploded in a mere decade into the colony's second largest urban center, but still lacked proper medical infrastructure for Africans. As the main mining hub and Belgian Congo's emerging industrial capital, a healthy labor force was deemed especially crucial in Elisabethville. As part of the Plan Franck, the provincial Public Works Department finally launched a first tender in 1921 for the hospital for Africans. The initial project of the *Hôpital Prince Léopold* contained six large wards for 70 beds connected by a single corridor, which meant that nurses would have to make inefficient detours from a patient's bed to general services such as the administration or the dispensary. In response, a second design was developed, in which the large wards were split up into two smaller pavilions of 34 beds, subdivided by an additional hallway. The design of the large pavilions, however, still proved useful. The assembly of prominent doctors that prepared the project of the *Hôpital des Noirs de Léo-Est*, had requested these plans from the Katangese provincial Public Works Service, and decided to recycle the design. In Léopoldville, local architects then reassembled the pavilion design within the larger *plan d'ensemble* of the city's new hospital. In doing so, they made important additional changes to the Elisabethville design, reorienting the pavilions to Léopoldville's hotter and more humid tropical climate, and when they reused the pavilions again in 1929, they removed the toilets from the central core of the wards, introducing sanitary annexes to each pavilion.[224]

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224. For more detailed plans of the Léopoldville hospital, see 2/S.

The *Hôpital Prince Léopold* quickly became an important hub from which various other plans circulated throughout the colony. Léopoldville also imported the plan of the logistics pavilion from Katanga, downsizing the design to correspond to the smaller amount of patients of the local hospital. From there, the plans were shipped to Matadi, where they were recycled by architect George Warny, who was designing a hospital for the *Compagnie du Chemin de fer du Congo*.[225] A few years later, the same plans arrived in Coquilhatville – likely in the slipstream of Etienne Popyn, a Léopoldville-based state architect who was briefly active in Coquilhatville. There, he recycled the familiar plan, incorporating it into the smaller *Hôpital des Noirs* of Equateur's provincial capital. Yet, the most influential plan of Elisabethville's hospital, was that of the pavilion for 34 beds, which became the basic module for several other hospitals. The provincial Public Works Department first reused the plan for the Albertville hospital for Africans, reintegrating it into an extended version of the type-plan from 1923. Perhaps due to the local topology this extended type-plan was never realized, but the module of 34 beds was still deployed and reassembled within a different overall lay-out. The government repeatedly reused the plan, first in small Katangese towns such as Kabinda, but later also across provincial borders:, in the large hospital of Stanleyville, it again served as the standard ward.[226] Lastly, the plan was reused in the booming mining town of Jadotville, where local architects also recycled yet another plan of Elisabethville's *Hôpital Prince Léopold*, integrating its design for the administrative entry pavilion into a new *Plan d'ensemble*. They did, however, develop new plans for a logistics pavilion from scratch, which also started to circulate within the colonial administration. The design circulated to Albertville, where it almost directly reused – only the corridors had to be readjusted.

These pavilion plans were still edited and reintegrated within plans of other overall designs. Other instances of circulating plans, reveal even more straightforward practices of recycling, and perhaps epitomize the improvised and even opportunistic *modus operandi* of the Public Works Service during the interbellum. In Kongolo, local officials did not even bother reprinting a new plan – perhaps due to a dearth in paper – but simply scratched off Léopoldville and Albertville, indicating the necessary local adjustments with red crayon.[227] Similar ad-hoc techniques were used in other places as well. In 1931, for instance, Malonga was demoted as district seat, and was no longer deemed large or important enough to warrant the construction of a *dispensaire-maternité*. In an extremely literal design intervention, officials cancelled the *maternité*, both on the floorplan and in the caption.

225. Warny would later trade his job at the *Compagnie* for a post at the *Section des Bâtiments Civils* of the provincial Public Works Service of Léopoldville, where he was involved in the public tenders for new pavilions at the *Hôpital des Noirs de Léo-Est*. Based on his earlier design for the hospital in Matadi, it is likely that he suggested the adaptations to the original design, removing the toilets from the main building.

226. See AA/3DG 767, *Plan de lotissement de la circonscription urbaine de Kabinda*, March 1929.

227. Similar shortages of paper will reoccur in 3/L.
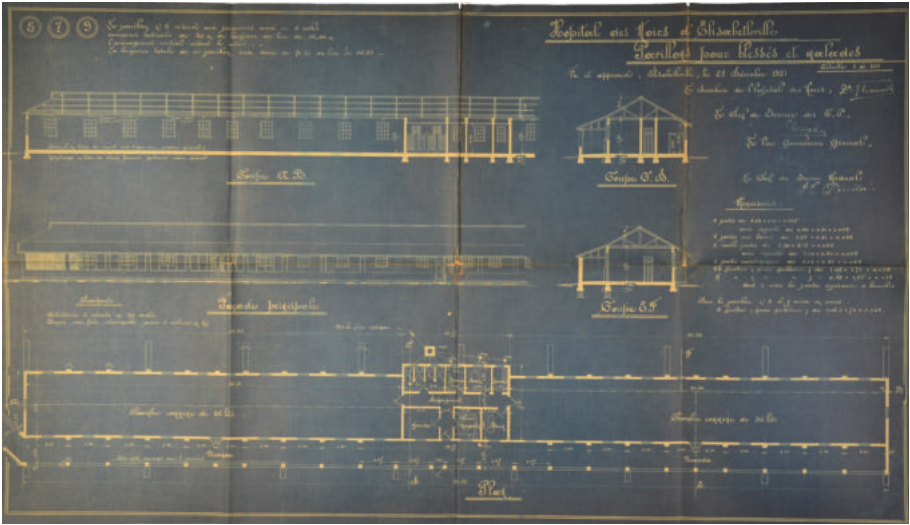
Image 49 . Elisabethville: Pavilion for 70 beds
1921, AA/GG 15840.
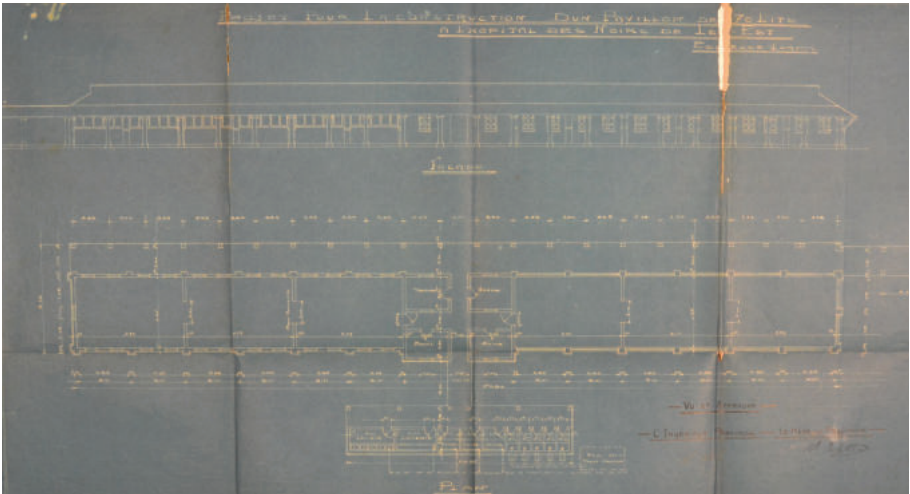
Image 50 . Léopoldville: Pavilion for 70 beds

The original plan was adjusted by reorienting the pavilions to an east-west orientation, adding internal walls and external toilets - the latter was likely a suggestion of architect George Warny based on his earlier design in Matadi.
1928, AA/GG 14927.
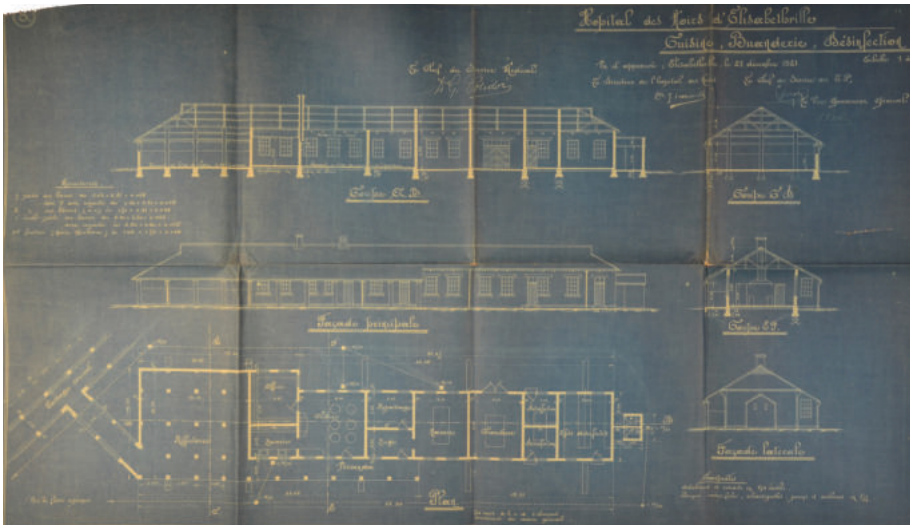
Image 51 . Elisabethville: Logistical pavilion
1921, AA/GG 15840.
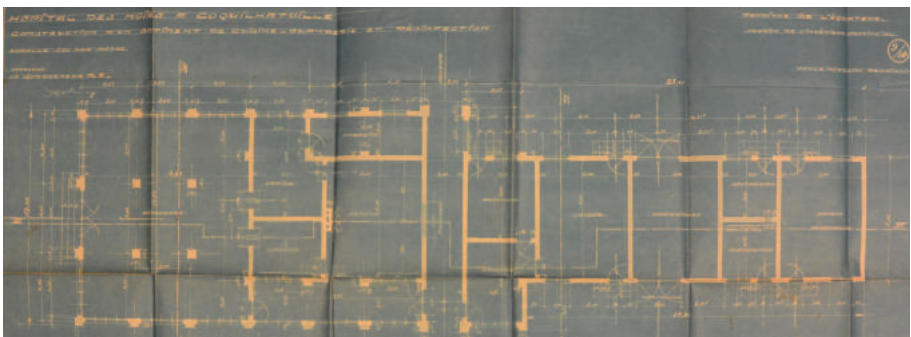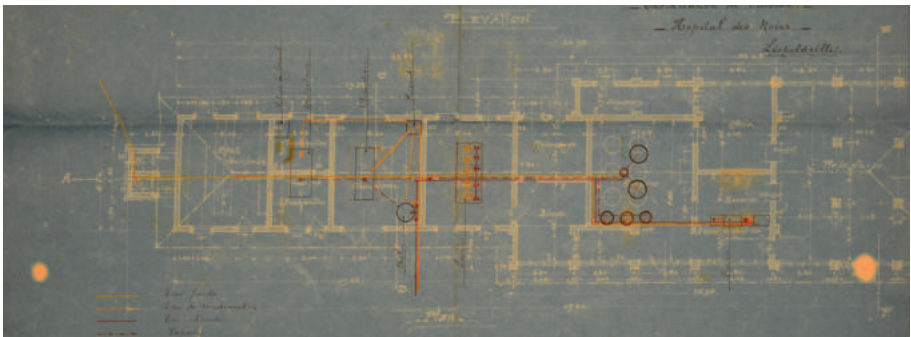
Image 52 . Léopoldville & Coquilhatville: Logistical pavilion

The plan was first recycled and adapted in Léopoldville. This adjusted version was later reused in Matadi and Coquilhatville, where Architect Popyn explicitly noted on the plan: *'d'après le plan de l'Hôpital des Noirs de Kinshasa.'*
1923, AA/GG 16807; 1931, AA/GG 12374.
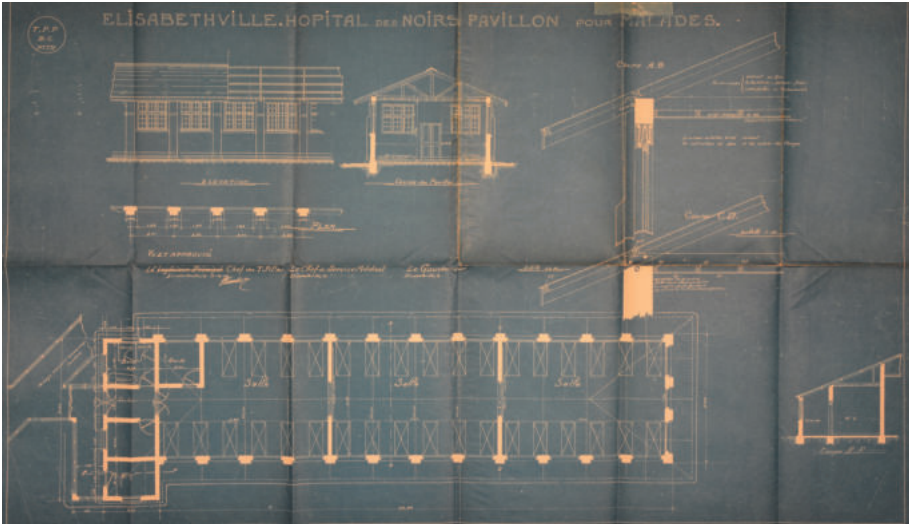
Image 53 . Elisabethville: Pavilion for 36 beds
1921, AA/GG 15840.
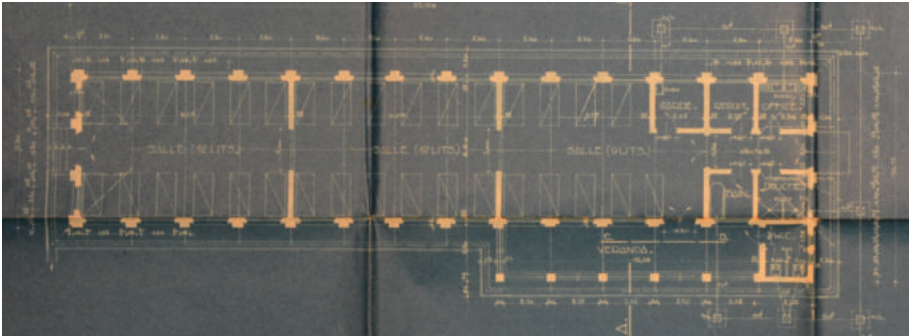
Image 54. Jadotville & Albertville, Pavilion for 36 beds

This plan was then recycled and slightly altered for the hospitals in Jadotville and especially in Albertville, where it was built from assembled metal panels by a Belgian company.

1930, AA/GG 15920, AA/GG 18186.

Image 55 . Elisbethville: overall plan with smaller pavilions of 36 beds
1921, AA/GG 15840.
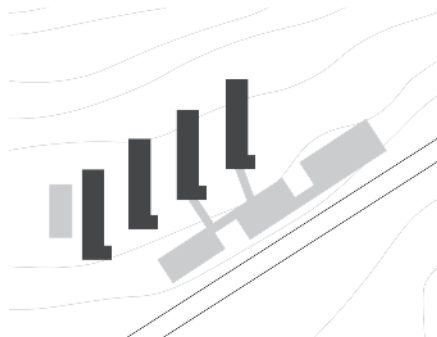
Image 56 . Jadotville, 1930; Stanleyville, 1945; Albertville 1927; 1935 (realized & unrealized)

The pavilion design was reassambled into these local hospital plans. In Albertville, the type-plan was first adopted, but never realized. Perhaps due to the site's topography, a local architect or administrator may have rearranged the design on the spot, revealing the potential of pavilions as flexible modules.

AA/GG 15920; AA/GG 936; AA/GG 15920; author's drawing based on aerial photograph.

Image 57 . Elisabethville: Administrative pavilion, 1921, Jadotville: Refectory and logistical pavilion, 1931

The plan for the administrative pavilion of Elisabethville (above) was also recycled for the hospital in Jadotville, where it was combined into a larger plan for the local logistical pavilion (middle), which included administration, laundry services, and the morgue. From there, it travelled to Albertville, where it was reused but integrated within the local, reorganized overall *Plan d'Ensemble.* Notice how the he dark grey contour around the morgue (middle plan, bottom center) suggests that this portion was later copied onto the blueprint, perhaps to save paper, again indicating practices of making do.
AA/GG 15920. AA/GG 15840.

Image 58 . Kongolo: Pavilion for Aliénés (from Albertville & Léopoldville)
1936, AA/GG 15920.
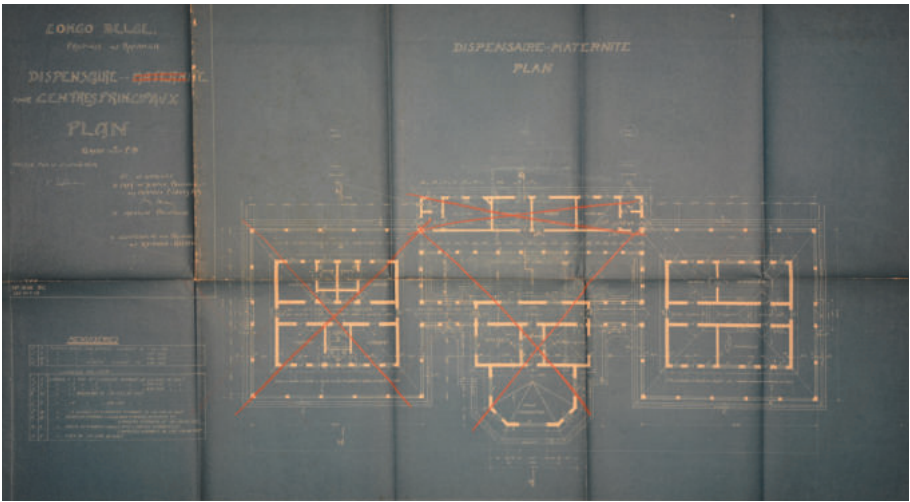
Image 59 . Malonga: Dispensaire-Maternité
1931, AA/GG 15920.
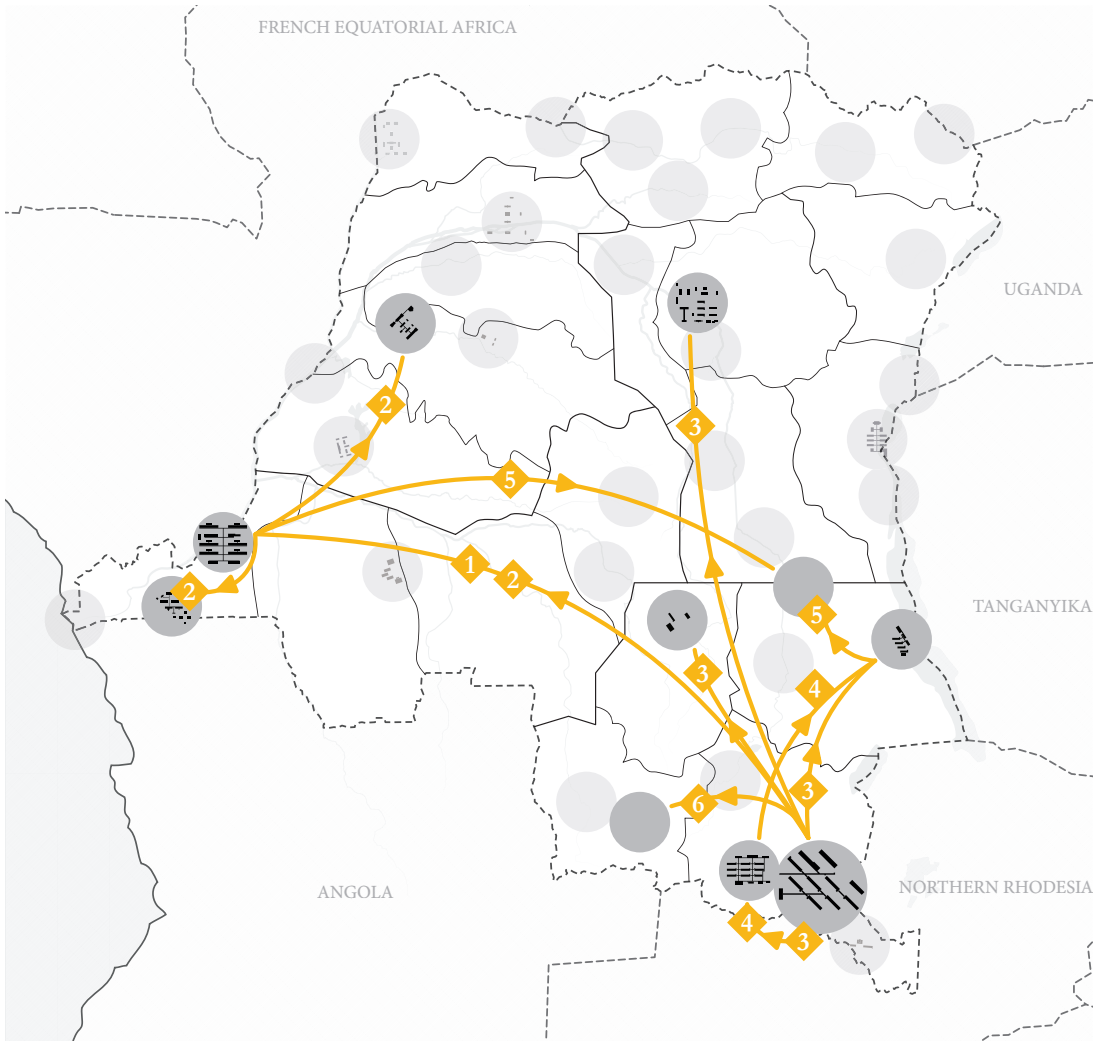
Image 60 . Trajectories of plans in circulation under the *Plan Franck*

Although some type-plans had been developed in the Katangese province, these were never integrated within a larger, systematic database under the *Plan Franck*. Instead, an implicit *modus operandi* came in place in between 1923 and 1931 (the end of the *Plan Franck*) - and likely even thereafter - in which existing plans were recycled and readapted to various locations. Tracing these trajectories not only gives an indication of the scope of this implicit workflow, but also lays bare how rather than Boma - the official colonial capital for much of the colony during the *Plan Franck* - Léopoldville and Elisabethville were the major hubs of such improvised, pragmatic design exchange.

Many more hospitals were constructed during the interbellum of which plans were lacking in the archives and only vague mentions of their possible existence remain. Hence, my effort to chart these circulating plans remains inevitably incomplete. Retrieving the few plans that were stored was often the result of a fortuitous find, rather than a targeted search. Archival catalogues remained incomplete, and the few inventories that did suggest to contain information on public healthcare rarely gave clues on how medical infrastructure was realized. Mapping a plan's path required reassembling fragments from sources dispersed across archives, and was often a stroke of luck – some single dossiers suddenly contained heaps of hospital plans, while other plans were buried astray in unrelated files.

Yet even if fragmentary, these trajectories do offer a glimpse into the actual, implicit everyday workflow of the Public Works Services, as do the archival absence of other plans and correspondence. Such an absence suggests not only that central architectural plans were indeed lacking, but also that local officials were making do and improvising with the limited means and manpower available: they recycled and readapted existing plans on the spot, often using simple measures such as crayon annotations or scratching off parts of the design. This modus operandi of trial and error stood in stark contrast with the administrative professionalization that Hector Maertens had proposed, which, as the 1920s painstakingly revealed, proved overzealous and rash. The development of type-plans, the transport of building materials and the recruitment of local architects all turned out too challenging, and eventually forced the colonial staff to develop alternative ways to implement the *Plan Franck*. While the proposed type-plans imposed a fixed general lay-out that failed to offer local personnel a flexible solution to tailor hospital designs to local conditions, recycling old plans of particular pavilions provided a quick, cheap, and labor-efficient solution. Pavilion designs could be easily copied, slightly adjusted and reassembled as modular units within a new, larger hospital design that was locally adapted.

Authors such as Peter Scriver and Jiat-Hwee Chang have already described such 'cognitive economies of design' in other colonies such as India and Singapore, contexts where budget, manpower and building materials were also in short supply. The Indian Public Works Department, for instance, made intensive use of an increasingly institutionalized set of prototypes, type-plans and building standards, allowing 'laborious and potentially redundant rethinking' of new designs to be 'effectively bypassed.'[228] By the interbellum, the British colonial empire had institutionalized a systematic and 'expressly utilitarian approach to the design of buildings' in response to the tenacious shortages of personnel and financing that colonial territories across the globe were typically facing.[229]

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228. Chang (2016); Scriver (1994, p. 503).
229. Scriver (1994).

In Belgian Congo, however, three important factors had likely meant that such professional 'parametrization' was not yet being developed, and that, by the end of the *Plan Franck*, Maertens' proposal of a systemized database of type-plans remained dead letter. The two first reasons were rather practical: on the one hand, the preparation time of the building program had been short, and was mainly focused on its financing and the general infrastructural works, rather than on the particular modalities of execution such as type-plans. On the other, the design and development of such a panoply of standardized plans would have required an amount of means and manpower which the colonial administration simply could never afford to set aside.

The last factor, however, was an underlying reluctance amongst colonial officials regarding type-plans, and broaches a deeper issue with standardized architectural solutions Peter Scriver already observed in British India. As he has described, while the 'parametrization' of the British Public Works Department did streamline the colonial design practice, such far-reaching institutionalization simultaneously became a dangerous '"cage" of bureaucratic forms,' restricting design creativity and common-sense through normative rigor.[230] It was exactly this constricting power of type-plans that worried some Belgian colonial officials. When the second set of standardized plans was being developed in Katanga in 1929, high ranked officials disagreed on the practical benefits of type-plans as generalized solutions to specific architectural problems. Whereas the Dr. Trolli, the *Médecin en Chef*, was a long-time proponent of hospital standardization, engineer Itten, head of the Public Works Service, shared his doubts with the *Gouverneur Général*:[231]

> *Les médecins-ingénieurs ou architectes appelés à collaborer à l'élaboration des plans généraux ne sont jamais parvenus à réaliser un accord parfait.*
>
> *Au surplus, en Belgique et dans la majorité des états européens, les plans types d'hôpitaux n'existent pas et pour chaque construction ou reconstruction d'hôpitaux on recourt à des plans nouveaux-inspirés des derniers progrès de l'hygiène, de la technique sanitaire et de l'art de bâtir.*
>
> *Dans la Colonie, jeune terre d'expérience, nous avons encore beaucoup moins de raison de stabiliser nos conceptions et nos progrès en matière de construction d'établissement hospitaliers alors que nous sommes si éloignés de la perfection.*

Itten's final conclusion was a straightforward and convenient plea 'pour le maintien du status-quo.'[232] His argumentation was extensive – citing the constantly changing medical and architectural professions, the absence of a clear consensus on best practices of hospital architecture, and the lack of building experience in colonial Congo. As such, his letter addressed the core of the issue: the restraining

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230. Scriver (1994, p. 5) refers here to Max Weber's work on bureaucracy, see Barbalet (2008); Weber and Kalberg (2002).

231. AA/GG 18186, Note from *Ingénieur en Chef* Itten to *Gouverneur Général*, 11 December, 1929.

232. Ibid.

'coercive potential of design standards' when these are fossilized into fixed and rigid one-size-fits-all solutions.[233] While the improvised and opportunistic modus operandi deployed under the *Plan Franck* had been developed as a time-efficient coping mechanism to face heavy workloads and a faltering state budget, its welcome side-effect was that the restrictions of too rigid architectural 'models' were automatically avoided.[234] Recycling and adjusting existing plan, and reintegrating these as modular units within newly designed general lay-outs, was time-efficient, but also offered an unintended yet crucial flexibility to design multiple, similar, yet locally adapted hospital complexes.

Despite its flexibility, this makeshift working method also had its pitfalls. As local officials compiled plans and designs on the fly, they often operated without a predetermined building program and thus without a clear idea of the overall building costs.[235] In 1931, the Minister of Colonies, who allocated the finances and had to justify these expenses to the Belgian Chamber of Representatives, wanted to take stock of the accomplishments of the *Plan Franck* after a decade of public investments. However, a detailed list of the progress of the Public Works budget simply did not exist. As head of the Congolese Public Works Service, Itten quickly became the scapegoat of the Ministry's accountants charged with disentangling this budgetary mess:[236]

> *Les tableaux dressés par les soins de l'Ingénieur en Chef représentent, en apparence, un très beau travail et d'une réelle importance mais qui repose, en réalité, sur des bases bien fragiles et pour la vérification desquelles le Département manque presque totalement d'éléments. Nous avons été amenés à relever de grossières erreurs de calculs, atteignant parfois des centaines de milliers de francs, qui nous donnent l'impression que tout le travail en question n'offre aucune garantie et qu'il a été fourni en hâte. Il prouve certainement que la comptabilité proprement dite des «Travaux Publics» n'existe pas, qu'elle n'a jamais existé comme elle aurait dû l'être.*

Eventually, even the *Gouverneur Général* no longer backed his *Ingénieur en Chef*, writing to the Minister of Colonies that 'la tentative de M. l'Ingénieur en Chef Itten d'en rejeter la responsabilité sur autrui est compréhensible, mais [...] j'estime que l'Ingénieur en Chef doit supporter la responsabilité de cette carence.'[237] Although it is unclear to what extent these critiques had a direct impact on Itten's career, by the end of the year, he had retired and returned to Belgium.[238]

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233. Scriver (1994, p. 2).

234. Forty (2004, pp. 304-311).

235. In that sense, it seems hardly coincidental that only for the first three years of the *Plan Franck*, a detailed program for the planned Public Works was kept. Already during these years, the provincial branches failed to keep the central government updated on their progress to follow up on these plans. See AA/3DG 1337, *Travaux inscrits aux budgets ordinaires, 1921 – 1923.*

236. AA/3DG 1637, Annex 1 to *Note résumant la question des crédits extraordinaires accordés pour les travaux publics de 1919 à 1932,* 17 November 1931.

237. AA/3DG 1637, Letter from *Gouverneur Général* to *Ministère des Colonies*, 11 May, 1931.

238. *Biographie belge d'outre-mer* 1968, p. 523).

While the improvised modus operandi of the Public Works Service had allowed the understaffed administration to cope with pressing budgetary problems and realize an impressive amount of medical infrastructures, this working method had clearly remained the object of a contentious debate, especially between the Brussels ministry and the local authorities. After the second World War, when the issue resurged with the development of the even larger *Plan Décennal*, type-plans and the general workflow of Public Works Service would prove more critical than ever. Even if the working methods during the Plan Franck were not to the likings of many officials, especially not to those in the remote Ministry in Brussels, the interbellum's coping strategies of parsimony with paper, modular recycling of plans and the need for flexibility, would all prove vital lessons for the post-war period.

Image 61 . *Centre Hospitalier Universitaire*

Walking towards the façade of the *Centre Hospitalier Universitaire* remains an impressive experience, and testifies to the urban ambitions of local colonial officials during the design of the hospital.

 2016, Kristien Geenen.

2/ARCHITECTURE

A hospital typology translated: Coquilhatville's *Clinique Reine Elisabeth*

Even if the current socio-economic struggles and dilapidating public infrastructure are hard to overlook, wandering around in the former European center of Mbandaka stirs the imagination. The quay, one of the town's main arteries, offers a majestic view of the Congo river, and with the many old colonial villas and public buildings along the city's broad avenues, it's hard not to muse over the luxurious life the few privileged Europeans must have led in this provincial capital – even if one is well aware that further down the road, the old African *cité* shows a much bleaker memory of colonial times. Contrary to many other large Congolese cities, most of Mbandaka's parcels are not yet surrounded by high concrete walls, and many of the old colonial lofty residences still bear witness to their former splendor. Yet even amidst these grand villas and the often lush gardens reminiscent of the city's historical urban design as a garden city, it is the former hospital for Europeans that stands out for its grandeur. Situated at the end of a gently ascending boulevard, the hospital's imposing façade, with its play of protruding eaves and meticulous symmetry reminiscent of a *beaux arts* tradition, reveals itself step by step. From the 1920s onwards, local *Gouverneur Provincial* Charles Duchesne sought to realize his career-long ambition to transform the modest town of Coquilhatville into an important and prestigious

Image 62 . Interior hallway and surgical suite in the *Centre Hospitalier Universitaire*

Eerily quiet and deserted, the hospital's impressive interior hallways and surgical suite (which functioned as a *salle de séjour* during colonial times) are not only the result of local ambitions, but also of an extensive typological search of colonial officials to adapt the hospital to Coquilhatville's tropical and colonial context.

2016, Kristien Geenen.

urban center befitting of a provincial capital, and the hospital played a key role in these plans.[239] The town's older hospital for Europeans, which was falling into decay,[240] was a thorn in the side of Duchesne's dream, and the new *Clinique Reine Elisabeth*, which had to function as one of the 'joyaux de la ville,' had to mend this blemish.[241] The hospital's design was based on the same plans as Léopoldville's *Clinique Reine Elisabeth*, and although it was considerably smaller and important local adjustments had been made, it bore the same name and displayed a similar grandeur. Over eighty years later, the hospital's impressive architecture and urban setting remain reminiscent of these ambitions.

Inside the hospital, however, it's eerily quiet. With an average of around five patients for about 150 beds, the complex appears abandoned. Hearing the sound of one's own footsteps ricocheting across the spacious yet completely deserted hallways, of which the cool interior offers a welcome relief from the sweltering outside heat, one cannot help but feel impressed by the hospital's architecture, and at the same time be at unease with the complex's confronting emptiness. The medical facility has certainly known much busier periods than the recent decade, but during colonial times, the hospital must have left a similar impression. When the hospital was first inaugurated in 1931, it counted two pavilions of twelve private rooms each, while the town counted only 377 European inhabitants. Needless to say, the hospital was out of proportion and often empty. One of the two pavilions would only be used from 1938 onwards – until then, it hadn't even been necessary to equip the building with electric wiring.[242] In the meantime, rooms in the other pavilion remained empty more often than not, and were rented out as hotel space for travelers passing through town.[243] With the economic crisis hitting hard in both the colony and the metropole, even Belgians at home complained about the excessive sums the hospital – which quickly became known as the 'scandale de Coquilhatville' – was costing.[244] It was only in the 1950s, when a third and final pavilion was also constructed, that the hospital's occupation rate slowly reached full capacity. For all its grandeur, the hospital has been a white elephant throughout much of its colonial and post-colonial existence.

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239. Duchesne explicitly aimed to fight the poor reputation of Equateur – 'sa pauvre province' – and Coquilhatville through this 'embellissement urbanistique,' and by giving 'son chef-lieu [...] peu à peu le visage qu'il en a rêvé.' See *Biographie coloniale belge* 1958, pp. 272-285).

240. As Medical Inspector Cammermeyer described the hospital: 'La plaque « Hôpital des blancs 1913 » que porte le bâtiment destiné à héberger des blancs malades à Coquilhatville est la seule chose qui fait penser à un hôpital.' The building was later refurbished and became the local seat of the Banque du Congo belge. AA/GG 15956, Medical report by *Dr. Cammermeyer*, 21 July, 1919.

241. AA/GG 12641, Internal note from Head of the *Travaux Publics Provinciaux* De Boeck, 24 October, 1928.

242. *Médecin Provincial* Dr. Schwers requested in 1938 to equip the hospital with electric wiring, after he had noted that the number of 'malades admis à l'Hôpital pour Européens de Coquilhatville s'élève constamment, au point que le deuxième pavillon autrefois inoccupé, est à présent régulièrement utilisé.' AA/GG 12641, Letter from *Médecin Provincial* Dr. Schwers to the head of the provincial Public Works Department, 22 April, 1938.

243. AA/GG 19395, Letter from *Médecin en Chef* Van Hoof to *Médecin Provincial*, 24 May, 1935.

244. AA/3DG 1638, *Note au sujet des prétendus gaspillages dans les dépenses pour construction des hôpitaux de la Colonie*, by *Médecin en Chef* Trolli, 25 May, 1932.

Yet the story of the hospital's design is not only one of an overambitious local Governor longing to fulfil his dream of transforming Coquilhatville. It is also the final result of a long and intensive search by colonial officials to adjust existing hospital typologies from across the globe to the tropical and colonial context of Belgian Congo. It's construction was part of the *Plan Franck*, under which three of the four provincial capitals – Léopoldville, Coquilhatville and Stanleyville – had to possess new, state-of-the-art medical facilities for Europeans.[245] Because these were similar hospital projects, the Brussels Ministry of Colonies decided to develop a standardized type-plan to facilitate their construction. Exemplary of the often messy administrative processes that characterized colonial governance, however, the provincial department of Léopoldville was unknowingly also working on a local proposal, which in the end was selected instead of the Brussels type-plan.[246] After it was sent to Coquilhatville, local architects again re-adapted the plans, as an architectural compromise had to be found between downscaling the hospital to the smaller town, and the grand urban ambitions of Governor Duchesne. This chapter on **architecture** dissects the various steps of this incremental and multi-sited design process. It first traces how the design from the Brussels department was heavily determined by hospital typologies – in particular the pavilion typology – that had been institutionalized in the *métropole*. It then re-centers to Belgian Congo, charting how local administrations developed their parallel design, drawing from similar but also alternative different knowledge networks and foreign best practices as inspiration for local typological innovations.

When studying hospital architecture, transnational knowledge exchange and typologies are inextricably bound. Typologies – or 'types,' often used interchangeably – can perhaps best be understood when contrasting it to a 'model.' As Adrian Forty writes: 'The word "type" presents less the image of a thing to copy or imitate completely than the idea of an element which ought itself to serve as a rule for the model.'[247] In architectural theory and history, typological classifications have largely been based on either the form or the function of buildings, and much of the debate concerning typology has dealt with how these two classifications contrast or correspond. Hospital architecture takes up a particular place. Not only have architectural historians long maintained that its formal typologies perfectly reflected functionality and medical science[248] – from pavilions and miasma, to skyscraper hospitals and antisepsis – but it was also the transnational emergence and spread of the new pavilion typology that originally sparked the development of hospital planning as a discipline. Numerous typological studies on hospital architecture have charted the transnational transfer of typologies in the West:

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245. The fourth capital, Elisabethville, already possessed a recently built hospital for Europeans.
246. At the time, Léopldville was still only a provincial capital and would only become the official capital in 1929.
247. Forty (2004, p. 305), who bases his definition on the writings of architectural theorist Quatremère de Quincy.
248. Pevsner (1976, p. 289); Prior (1988).

through medical and architectural journals, conferences as well as personal travels, typologies were exchanged and hospital planning blossomed into an interdisciplinary and international field of study.[249] *Colonial* hospitals, however, remain conspicuously absent from these current debates.[250] This absence is all the more striking when considering the rising number of architectural historians who are studying transnational knowledge exchange between (former) colonies and the West, and who are increasingly calling to place 'the periphery at the center.'[251] In this burgeoning body of literature, authors have discussed knowledge exchange on various building typologies – from schools to military barracks and housing[252] – but hospitals remain somewhat overlooked.[253]

This chapter bridges the gap between these two surprisingly separate bodies of literature. A first, smaller contribution is made to typological studies of hospital design: by unravelling the design process from Brussels over Léopoldville to remote Coquilhatville, I 'center' and highlight typological innovations in the 'periphery' that have remained overlooked by scholarship focused on Western hospital design. My main aim in this chapter, however, is to contribute to the growing scholarship that deals with architectural knowledge exchange, by offering an alternative insight into how architectural expertise circulated and was adapted to the colonial context. At first glance, the history of the *Clinique Reine Elisabeth* simply reconfirms already existing critiques on narrow paradigms such as 'export' or 'diffusion,' according to which architectural ideas and models were exclusively developed in the West, and then simply exported and diffused across the globe.[254] Similar to what others have already highlighted through more nuanced notions of 'import,' 'editing,' or 'borrowing,' the case of the *Clinique* reveals how local officials adapted internationally circulating hospital typologies to Coquilhatville's local conditions of climate, European anxieties about tropical disease, and racial inequalities.[255]

Yet dissecting these typological 'translations' – to build on architectural historian Esra Akcan's analogy of 'the process of transformation during the act of transportation'[256] – also leads to more profound and unsettling insights about who actually imported architectural knowledge into colonial Africa, and through which networks this happened. On the one hand, most architectural historians dealing with transnational knowledge exchange have essentially focused on architects or urban planners as the main actors. They have zoomed in on visionary

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249. See Introduction for a more extensive discussion.

250. As an exception, see: Baisset et al. (2010).

251. Nasr and Volait (2003b, p. xi).

252. See Beeckmans (2017); Chang (2016); De Raedt (2017).

253. Some exceptions are Chang (2016) and Scriver (1994).

254. Hall (1988).

255. See e.g. Beeckmans (2013b, pp. 3-11); Nasr and Volait (2003b); Ward (2002).

256. Akcan (2012, p. 3).

architects such as Edwin Lutyens in Delhi or Le Corbusier in Chandigarh,[257] traced the trajectories of lesser-known technocrats or 'architect-consultants,'[258] or unpacked knowledge transfers within the bureaucratic 'planning cultures' of Public Work Departments or international institutions. In the colonial context of interwar Africa, however, colonial doctors rather than architects were often considered the most important 'specialists of space,' and this was of course all the more true for hospital design.[259] Rather than through the Public Works Department, it was through members of the Medical Service and their (personal) connections with other foreign colonial departments that officials collected and translated external plans and architectural documentation as inspiration for the design of Coquilhatville's *Clinique*. Although this has all too often escaped the attention of architectural historians, actors outside the architectural discipline thus profoundly shaped the networks through which architectural knowledge was exchanged.

On the other, tracing these alternative networks and actors reveals that exchange was not limited to bilateral connections between metropole and colony, despite what most research on architectural knowledge exchange still seems to suggest.[260] This of course is tied to pragmatic reasons such as the availability of archival sources, or the language barriers researchers face, yet has nevertheless contributed to 'strong historiographic bias from the Anglophone and Francophone "center"' in current-day architectural histories.[261] More recently, however, some authors have pointed to international institutions and lesser-known 'inter-colonial' conferences as complementary knowledge hubs, while others have zoomed in on the increasing influence Eastern Europe and socialism exerted on the global post-war architectural scene.[262] Similarly, shifting the attention towards smaller colonial powers, may also allow to surface transnational flows of expertise that have hitherto remained hidden.[263] Belgian Congo was situated at the geographical, linguistic and cultural crossroads of various colonial influences and planning cultures. As Johan Lagae already argued, this may have prompted an implicit policy of 'selective borrowing,' a process in which many Belgian colonial architectural practices and guidelines were essentially a pick-and-mix of best practices in other

257. Hall (1988); Irving (1981).

258. For a historiographical overview, see Lagae and Toulier (2014, p. 52) and editorial introductions to the thematic issues on 'global experts' and 'nomadic experts' of *ABE Journal* of and *Géocarrefour* of Lagae and De Raedt (2013) and Verdeil (2005). For concrete examples, see e.g. Beeckmans (2014); Bromley (2003); De Raedt (2017); Glendinning (2008); Lagae (2013c); Lee (2015); Shoshkes (2013).

259. Home (1997, p. 42).

260. Examples abound of such limited perspective, especially concerning the knowledge exchange in the British colonial empire. See e.g. Home (1997), but also more recent work of e.g. Chang (2016).

261. G. A. Bremner et al. (2016, pp. 228, 239).

262. See e.g. Bigon (2014, p. 241); G. A. Bremner et al. (2016); De Raedt (2014); Glendinning (2009); Stanek (2012).

263. This is not only the case for Belgian Congo, but also for the Portuguese empire, see e.g. Milheiro and Burke (2017).

European colonial territories. [264] For Coquilhatville's *Clinique*, too, colonial officials not only drew from the well-established metropolitan guidelines, but were also inspired by a panoply of German, French, and North-African books, practices or plans. Just as other authors have already left the 'well-trodden paths' of conventional knowledge networks, this chapter also aims to show how colonial (hospital) architecture was not simply the result of bilateral "export." Instead, it was the product of much more diverse transnational connections of knowledge exchange that transcended conventional linguistic and imperial borders, and that architectural historians have not yet enough accounted for.

With multiple stages in a long design process moving from Brussels to Léopoldville and Coquilhatville, this case is a particularly telling example. Yet it was far from the only hospital in Belgian Congo shaped by these networks. As already became clear in the previous section on plans in circulation, the global spread of the pavilion typology marked the design of almost every hospital in the colony, both for Europeans and Africans, and Coquilhatville's *Clinique Reine Elisabeth* is just one of many viable entry points to broach these themes. Nonetheless, it is by far the most thoroughly documented case in the archives, which allowed to better understand how colonial architecture was the result of a transnational process of import, borrowing and translation, in which not only architects, but also other actors brought vital expertise to the drawing table.

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264. G. A. Bremner et al. (2016, p. 239). He builds on Ward (2002, p. 403), who initially defined 'selective borrowing' – in contrast to 'synthetic borrowing' – as a process 'where no identifiable innovation resulted from the borrowed ideas or practices,' and already identified Belgium and its colony as a prime example of such an approach. The local, innovative translations of the pavilion typology, however, suggest that as Belgian Congo was increasingly devoted to building an 'armature médicale,' healthcare infrastructure was somewhat an exception to the general approach of 'selective borrowing.'
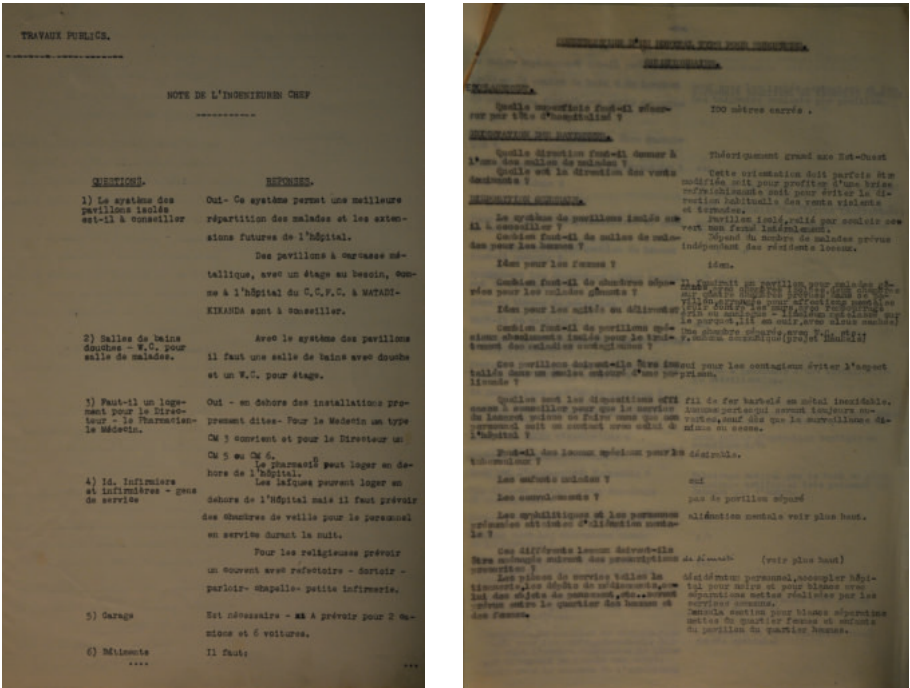
Image 63 . *Construction d'un hôpital type pour Européens - Questionnaire*

Regardless of whether it was addressed to engineer Itten or doctors Trolli and Van Campenhout, the questionnaire was of highly technical nature, and responsdents clearly revealed an intimate knowledge of contemporary hospital planning practices.

1927, AA/3DG 1075.

Metropolitan institutionalization of hospital design

Formulated in 1927 with a whole list of questions concerning the design and 'construction d'un hôpital type pour Européens,' the questionnaires depicted here are a rare find. Even if many other, and much more large-scale attempts to develop type-plans for hospitals were undertaken throughout the colonial period, these are the only sources found in the archives that document an extensive preparation of such plans. The questionnaire, and the comprehensive design process it unveils, indicate the importance the colonial government attributed to the architectural qualities of this particular type-plan. With Maurice Delcuve, a Brussels-based architect who had never set foot on African soil, it was the first time that an external architect from outside the colonial department was selected for such an assignment. He was charged to design a type-plan which had to be focused on the city of Léopoldville, but was also applicable in the other two provincial capitals of Stanleyville and Coquilhatville.

In order to facilitate his task, the Brussels authorities decided to sent out the questionnaire. With queries about square meters and volume per patient, orientation, ventilation, and building materials and finishes, many of the questions were of highly technical and architectural nature. Nevertheless, it was not only addressed to Gustav Itten, the *Ingénieur en chef* of the Congolese Public Works Service, but also to doctors Trolli and Van Campenhout, the heads of the Congolese Medical Service and of the Brussels colonial Medical Department. Just as those of the engineer, the doctors' responses clearly revealed an intimate knowledge of the best practices and key themes within the latest manuals and official guidelines on hospital planning. It was Dr. Van Campenhout, for instance, who recommended to Maurice Delcuve that he visit the hospital Brugmann in Brussels, designed by famous architect Victor Horta, as an inspiration for the design, and who stressed the importance of the instructions of the Belgian *Conseil Supérieur d'Hygiène*.[265]

Already founded in 1849, this state organization had quickly evolved from an advisory council into an official government body that closely supervised healthcare and hospital construction. By the turn of the century, a specific subcommittee examined and questioned the design of every new hospital planned in Belgium. The committee was not only comprised of doctors, but also included Hendrik Beyaert, a renowned Belgian architect who had briefly supervised Victor Horta in his early days as an intern.[266] Based on literature and best practices, the members compiled a set of official guidelines for Belgian architects who were

265. As early as 1890, Van Campenhout had been active as a doctor in Léopoldville, where he later founded the first laboratory. He later became professor at the *Institut de Médecine Tropicale*.

266. Stylistically speaking, especially his later work has been described as a 'manifestation of "a link between Neoclassicism and Art Nouveau."' At the same time, his projects – and especially his design of the Brussels Ministry of Railways headquarters building – testifies of typological creativity, functionalism, and a far-reaching knowledge of hygienic architecture. See Van De Maele (2019, pp. 61-69).
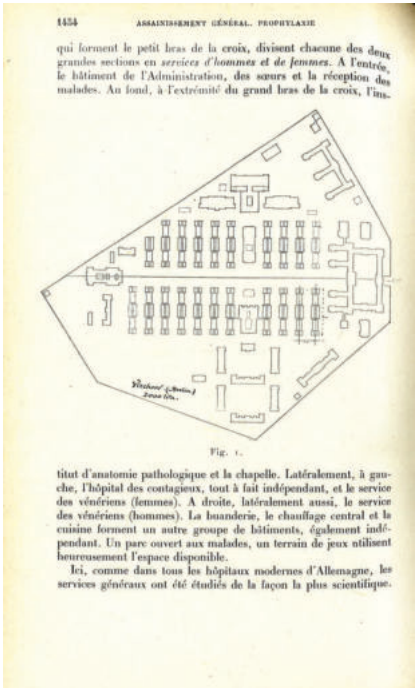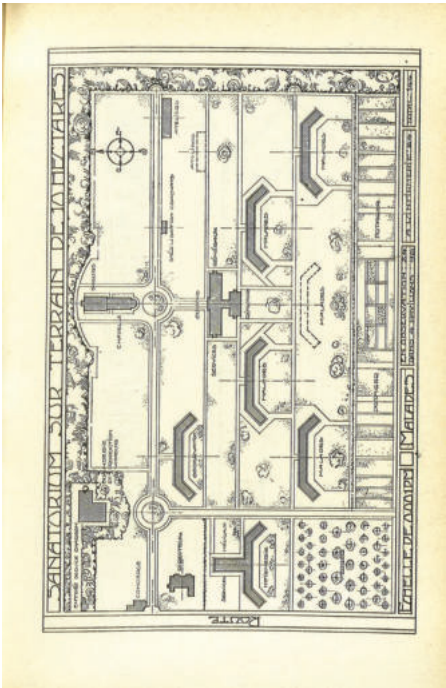
Image 64

Both the *Conseil Supérieur d'Hygiène Publique* as the Paris-based *Office International d'Hygiène Publique* continued to advocate the pavilion typology well after the turn of the century and contributed to the institutionalization of the typology.

Left: excerpt from the *Conseil*'s guidelines from 1923.
Right: excerpt from the annuel bulletin of the *Office* of 1910.

designing hospitals and needed to apply for approval to the committee. These instructions were not only published in the *Conseil*'s official *Recueil des Rapports*, but also made accessible through more widely-read Belgian architectural journals such as *L'émulation*.[267]

When the *Conseil* published its first two sets of guidelines in 1851 and 1884, it closely followed the latest scientific insights from England and France, where the pavilion hospital was emerging as the most scientifically sound way of hospital design.[268] Doctors and architects had originally developed the pavilion typology based on the belief that contagious miasma emanated from the soil, and maximum ventilation thus prevented infection. By the turn of the century, when the *Conseil* again updated its guidelines, this miasma-theory was slowly being replaced by the germ-theory, in which bacteria were now identified as the real source of contamination. Although historians have long argued that this turning point in medical theory caused revolutionary changes in hospital design, this was not immediately the case.[269] While the emphasis in manuals and guidelines on hospital planning somewhat shifted away from ventilation towards the use of building materials that facilitated cleaning and disinfection, the pavilion hospital remained the most widely advocated typology for several decades, especially in Europe.

This was not only because many doctors and healthcare policymakers were initially sceptical about newly emerging medical theories, but also because institutions and professional associations continued to advocate the construction of pavilion hospitals.[270] One particularly influential organization was the Paris-based *Office International d'Hygiène Publique*. Although founded in 1908 to exchange epidemiological data, with member states such as Great-Britain, France, Portugal, Spain Belgium, Germany and the United States, the *Office* quickly developed into a central hub of transnational knowledge exchange on medical science and hospital construction that transcended classic imperial and linguistic borders. Its annual bulletin included occasional guidelines on hospital construction, often illustrated with plans of existing hospitals as best practices (Image 64), and while some of its member countries, the United States in particular, were already shifting towards high-rise hospital typologies, most of the examples published in the bulletin were still pavilion hospitals.[271] In Belgium, too, the *Conseil Supérieur*

267. *L'Emulation*, 1899, 7, pp. 106-112; *L'Emulation*, 1899, 8, pp. 115-119.

268. The first set of guidelines was mainly based on a scientific committee of doctors, engineers and architects which had visited several hospitals across Europe in preparation of the construction of the Saint-Jean Hospital in Brussel. See Wellens-de Donder (1970); *Moniteur Belge*, 1884, pp. 675-678.

269. As explained in the Introduction. See Pevsner (1976, p. 289); Prior (1988).

270. Adrien Forty (1984) has explained how the professions of architects, nurses and doctors all fared well from the continued use of the pavilion typology.

271. Examples of publications related to hospital planning in these bulletins are: *Hygiène Hospitalière : Projet pour un nouvel hôpital à Nice*, 1909, p. 963-977 ; *Notes sur quelques hôpitaux modernes*, 1910, p. 1450-1488, in which the Berlin Virchow Hospital, which served as a major source of inspiration for Horta's Brugmann Hospital, featured as a best practice ; *Les hôpitaux d'isolement en Angleterre*, 1912, p. 2200.
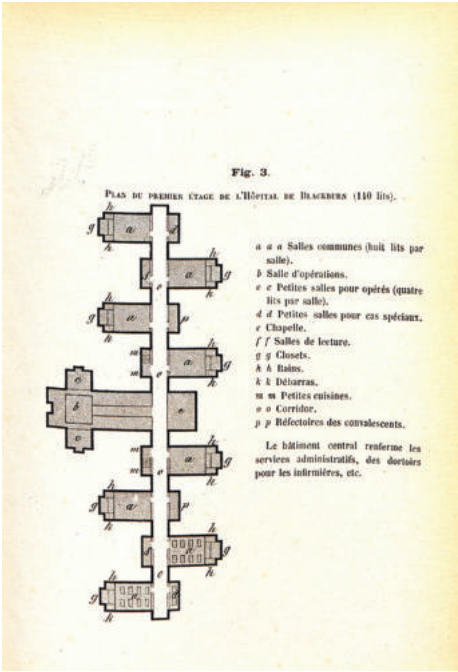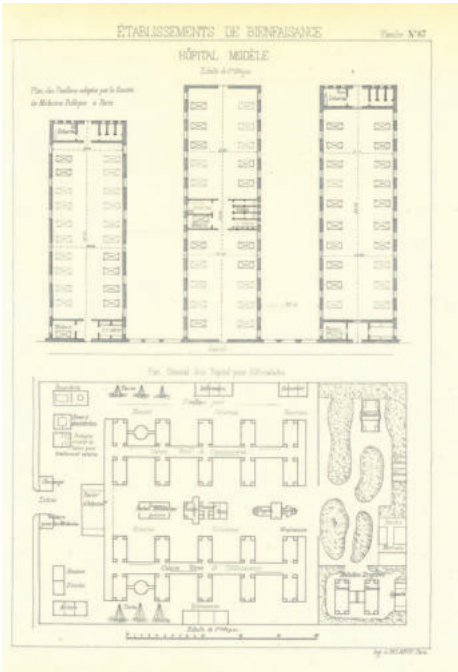
Image 65

Regardless of whether handbooks were written for doctors, engineers or architects, they were based on the same body of literature on hospital planning, discussed the same topics and best practices, and depicted similarly detailed plans and technical information.

AL: *L'économiste Pratique* by engineer Cacheux.
AR: *Traité d'architecture* by architect Cloquet.
BL: *Notes sur les installations hospitalières anglaises* by Dr. Plucker.

d'Hygiène Publique remained a remarkably faithful advocate of the old pavilion system. Even as late as 1923, when it published a revised set of guidelines, the *Conseil* continued to proscribe the single-story pavilion typology as not only the most healthy, but even the most economical solution.[272]

For almost a century, the pavilion hospital served as the official standard for hospital construction in Belgium. Throughout these years, the typology was not only imposed by the Belgian *Conseil Supérieur d'Hygiène Publique* and institutionalized through international organizations, but also became cemented and engrained in the minds of many young architects, doctors and engineers through education. For aspiring architects, one particularly influential handbook at the time was the *Traité d'Architecture*, written in 1900 by Louis Cloquet, a Belgian architect-engineer and professor at the Ghent University.[273] In his fourth tome on building typologies, an extensive chapter covered 'Locaux Hospitaliers' and discussed the history of medieval hospitals as well as the emergence of the 'système à pavillons isolés' as the proper approach to the construction of 'hôpitaux modernes.'[274] A revised edition was published in 1922, a year after Cloquet's death, which documented the pavilion typology even more extensively and was based on a highly detailed bibliography of the international contemporary body of literature on hospital planning.[275] It not only clarified the familiar spatial guidelines necessary for hygienic ventilation – surface and cubic meter per patient, distance between pavilions, orientation, etc. – but also provided an extensive overview of the various best practices of pavilion typology hospitals across Europe.

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272. 'La disposition connue sous le nom de système à pavillons sépares est celle qui répond le mieux aux exigences de l'hygiène et de la salubrité et qui se prête aux solutions les plus économiques.' See *Conseil Supérieur d'Hygiène Publique, Séance du 14 Juillet 1923: Instructions sur les constructions hospitalières*, p. 472.

273. According to the praise of contemporary book reviews, Cloquet's *Traité* certainly filled a historiographical hiatus in Belgium at the time, and offered both students and practicing architects a hands-on manual for education and inspiration. See Cierkens (2018, pp. 412-478); Goditiabois (1987, pp. 21-22).

274. Cloquet (1900, pp. 436, 444, 450).

275. Cloquet referred to a wide array of sources and truly serves as a valuable entry point to the body of literature that existed at the time on hospital construction. He not only cited the instructions of the *Conseil Supérieur d'Hygiène Publique*, and several articles in *L'émulation*, but also included the references to various well-established authors – doctors, engineers and architects alike: the pioneering work on the pavilion typology of French engineer Tenon (1788); the Anglophone handbook on 'hospital construction and management of Mouat and Snell (1883), of which the latter was a famous London-based architect who also designed the Royal Victoria Hospital in Montreal (see also Adams (2008)); the standard work of Belgian doctors Depage, Vandervelde, and Cheval (1907), which was a major influence for the Brugmann design by Victor Horta (see Bruniat and Le Maire (2011)); the overview on British hospital construction of Dr. Plucker (1880), who taught this also at the medical faculty of the University of Liège; and speeches given by Dr. Paul Brouardel, who advocated the pavilion typology as president of the French *Comité d'Hygiène*. Not all curriculums of every Belgian university have been found, but it is likely that very similar courses were taught at e.g. the Catholic University of Louvain. On the contemporary curriculum of Ghent University and University of Liège, see *Université de Gand, Programme des Cours* and *Ouverture solonnelle des cours*, multiple years; *Université de Liège, Programme des Cours* and *Ouverture solonnelle des cours*, multiple years.

The pavilion typology was not only taught to architectural students, but to other professions as well. Young Belgian engineers were given hands-on syllabi such as *L'économiste Pratique* from French engineer Emile Cacheux, which featured multiple spatial standards and plans of best practices across Europe.[276] Belgian students of medicine received a similar overview on hospital planning, often as part of courses on 'Hygiène Publique et Privée.'[277] Doctors aspiring to move to Belgian Congo also had to take additional courses at the *Institut de Médecine Tropicale*, including courses on 'L'hygiène tropical,' 'Hygiène et physiologie' and 'Hygiène coloniale et prophylaxie. These not only included very specific guidelines on 'l'habitaiton,' 'matériaux de construction,' and racial segregation as urban hygiene, but also instructions on 'hospitals and sanitary institutions.'[278] The courses were taught by Dr. Van Campenhout, the respondent of the questionnaire, who likely passed on his considerable knowledge on hospital planning to his students.[279] Remarkably, the medical handbooks and literature written for and by doctors on hospital construction differed little from those for architects and engineers: they were often based on a very similar bibliography, and included comparable technical instructions, plans and sections of the same canon of existing best practices.

By the time the questionnaire was sent to colonial doctors and engineer, the pavilion hospital had clearly been institutionalized in Belgium as the optimal typology – as all three respondents of the questionnaire confirmed.[280] This status was also reflected in Maurice Delcuve's final design proposal for an 'hôpital type pour Européens' (Image 66). The architect had also clearly taken up the suggestion to visit the Brugmann hospital, as Horta's vision of a garden-like 'hospital city' seems to have served as a clear and direct inspiration for the Léopoldville design'. Just like Horta's design, several paved pathways connected the most important services and were easily accessible by car, while the symmetrically composed pavilions and garden-like courtyards of Delcuve's plans further evoked Horta's idea of an 'hôpital-jardin.'[281]

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276. Cloquet also referred to Cacheux (1885) in his *Traité.*

277. Students could opt for a specialization as 'Docteurs-Hygiéniste,' and would receive courses concerning 'Hygiène de l'habitation.' With the medical education covering such broad topics, it is no surprise that the first authors who wrote on housing in the tropics were colonial doctors rather than architects, as Lagae (2002, p. 36) already indicated. *Université de Gand, Programme des Cours* and *Ouverture solonnelle des cours*, multiple years.

278. See ITM/4.1.2., Syllabi of *Hygiène tropical* ; *Hygiène et physiologie*; *Hygiène coloniale et prophylaxie*.

279. For instance, Dr. Van Den Branden, one of his former students and successor at Léopoldville's medical laboratory, also seemed well aware of this literature, as he referred to Brouardel's work in his report on Léopoldville's lazaretto. ITM/4.1.2., *Rapport sur le fonctionnement du lazaret des tuberculeux de Léopoldville et sur l'infection tuberculeuse de Stanley-Pool,* F. Vandenbranden, L. Fornara and A. Staub, 1926.

280. Although never made explicit in the questionnaire, the preference of the respondents for a pavilion typology may not only have been due to this widespread institutionalization, but also because single-story buildings were easier to construct, a necessary prerequisite in a colony without a well-developed building sector.

281. Bruniat and Le Maire (2011). During the design of the Brugmann hospital, Victor Horta had himself conducted an extensive study on hospital planning travelling across Europe to various important best practices. He was especially influenced by the Virchow Hospital in Berlin, which featured in numerous other manuals on hospital design as a best practice. See also Dickstein-Bernard et al. (2005).

Although Delcuve's proposal was clearly based on Horta's metropolitan hospital design, he did translate it the tropical conditions of Belgian Congo. Different than the Brugmann hospital, the Léopoldville pavilions aligned perfectly from east to west, which Dr. Van Campenhout had explicitly indicated in his questionnaire as the optimal orientation in the tropics. And just as Dr. Trolli and engineer Itten's had requested in the survey, Delcuve limited the rooms to two patients per ward – colonial officials believed the additional airspace was a necessary luxury for Europeans in the unhealthy tropical climate. As a result, the colonial design was far more spacious than hospitals in Belgium at the time, and easily met the minimum standards of the *Conseil Supérieur d'Hygiène Publique*.[282] The most noticeable change, however, was related to the logistics of the hospital. Whereas the corridors in most Western hospitals, including the Brugmann hospital, were organized perpendicular to the large communal wards, Delcuve had introduced exterior hallways that surrounded the smaller wards and at the same time served as a veranda for the patients. This simultaneously ventilated the rooms, and protected them from direct tropical sunlight. It was this logistical decision that would cause Delcuve's efforts to be vain, as the colonial government would eventually select the local counterproposal developed by the provincial Public Works Service of Léopoldville over his design.

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282. As Itten had explicitly demanded in his response: 'Pour les dimensions et le cube d'air prévoir 40 % en plus de ce qui est admis en Europe pour les hôpitaux.' AA/3DG 1075 *Note de l'ingénieur en Chef* Itten, 15 October, 1927.
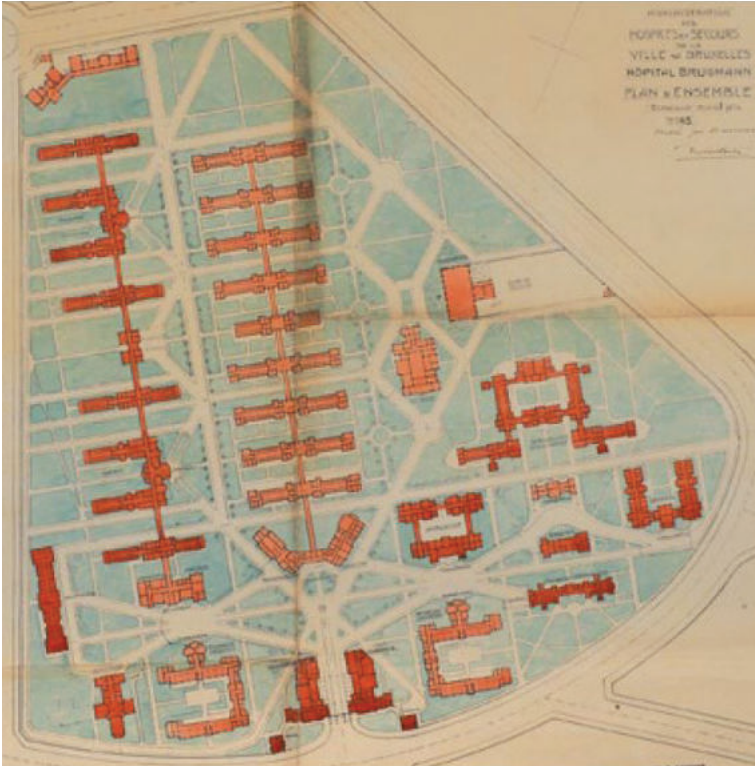
Image 66 . *Plan d'ensemble* of the Brugmann hospital by Victor Horta

Designed as a autonomous *hôpital-jardin*, with pavilions separated by large courtyards and boulevards for auto transport, the Brugmann hospital was an important source of inspiration for architect Maurice Delcuve. With the orientation of the wards, spacious patient rooms and innovations in the design of the hallways, however, Delcuve did attempt to adapt classic Western hospital typologies to the tropical and colonial conditions of Belgian Congo.

Bruniat and Le Maire, 2011, p. 17 (left).
AA/3DG 1183 (right).

TAL TYPE POUR EUROPEENS A ERIGER A LEOPOLDVILLE
ENSEMBLE DES INSTALLATIONS • ECHELLE : 1/400
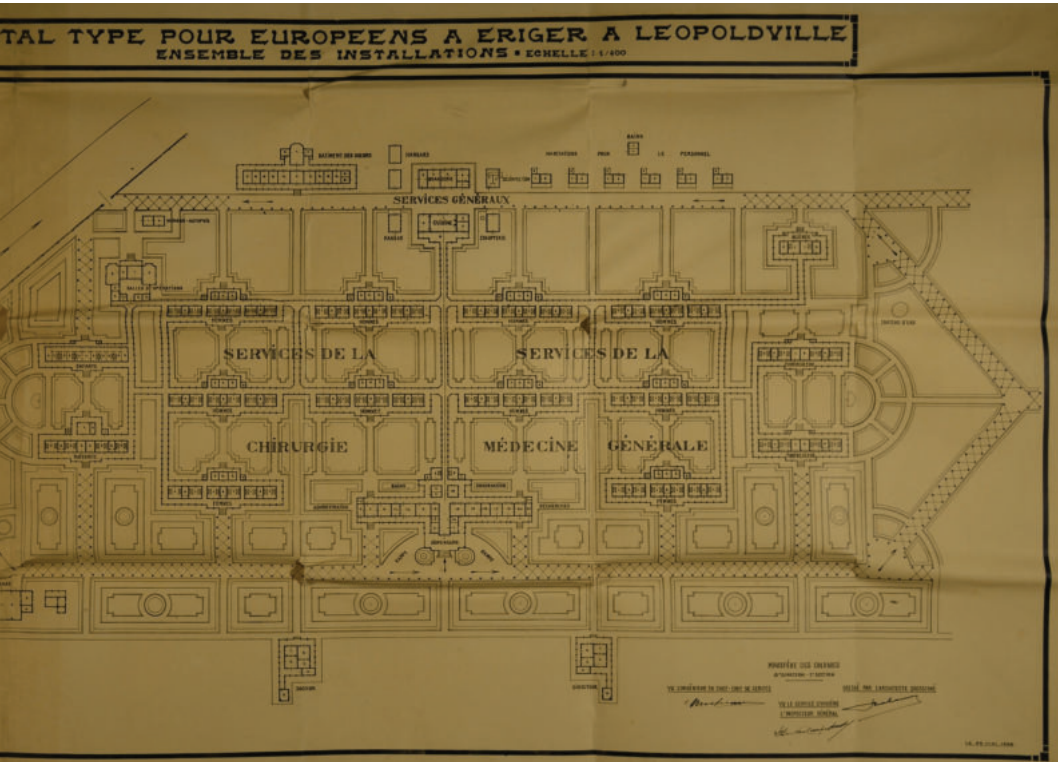
Colonial translations of a transnational typology

While Delcuve's design was being finished, however, both the local Provincial Public Works Services of Léopoldville and Coquilhatville had been developing their own plans for a new hospital for Europeans. Ironically, it had been the Brussels authorities themselves who had given this assignment – they had even commissioned colonial architect Etienne Popyn to Coquilhatville specifically for this reason a few years earlier – yet somehow, this command had been forgotten. Once in Coquilhatville, Popyn indeed developed a first *avant-projet*. Likely fueled by the ambitions of provincial Governor Duchesne, however, his proposal was completely out of proportion with Coquilhatville's limited European population. The central authorities quickly intervened. They discarded the plans as too costly, and charged Popyn to await Delcuve's type-plans and turn his attention towards other building projects in the provincial capital, such as the *Hôpital des Noirs*.[283]

While design efforts had been halted in Coquilhatville, in Léopoldville, the *architecte Principal* Vander Elst and Dr. Van Hoorde, head of the city's existing hospital for Europeans, were still continuing to work on their own hospital project, without the Brussels authorities being aware of this. It was only when the Léopoldville services received Delcuve's finished type-plan for approval, that the administrative branches of Brussels, Boma, and Léopoldville realized that there were now two, completely different proposals for the same hospital.[284] Just like the Brussels Department, the Léopoldville Services had invested considerable time and effort in their designs, the two proposals quickly became pitted against each other. With the decisive meetings organized in Léopoldville, however, it was no surprise that the local design was eventually selected, and would serve as the template for the new hospitals for Europeans in Léopoldville, Stanleyville, and Coquilhatville.[285]

While this anecdote is exemplary of the messiness of the often sluggish colonial apparatus, the parallel development of these two designs is an especially interesting case, since it highlights how various branches of a same colonial administration

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283. As *Médecin en Chef* Trolli wrote: 'En ce qui concerne le plan de l'hôpital, je crois qu'il sera préférable d'attendre le plan-type promis par le Ministère. Celui établi par vos services est certainement très beau mais, à mon avis, trop vaste et demande de grands frais.' AA/GG 14787, Letter from *Médecin en Chef Trolli* to *Gouverneur Provincial* Duchesne, 26 October, 1927.

284. Even members from same Public Works Service were not always informed about the building projects that were being prepared. As local engineer De Backer wrote to his head: 'Sur les instances du Service Médical de la Province du Congo-Kasai, j'avais prié notre service des Bâtiments Civils d'entamer l'étude du projet du nouvel hôpital pour Européens à Kalina. J'ignorais qu'il avait été demandé au Département de faire dresser en Belgique un plan d'hôpital-type.' AA/GG 15899, Letter from *Ingénieur en Chef-Adjoint* De Backer to *Ingénieur en Chef* Itten, 6 September, 1928.

285. With engineer Louis Van Leeuw, head of the Brussels Public Works Department and likely the man who started the questionnaire, and *chef-adjoint* of Boma's Public Works Service De Backer, there were only two out of six officials from outside Léopoldville at these meetings. Other officials present were Dr. Repetto, Dr. Van Hoorde, architect Van Der Elst and the omnipresent Dr. Duren, showing again how doctors, rather than architects or engineers, were the main protagonists of hospital design during the interbellum in Belgian Congo.

Image 67

The local counterproposal of Coquilhatville by architect Popyn was quickly rejected as overly ambitious and costly. Inspecting the plans of the *avant-projet*, it is not hard to see why. What is perhaps most remarkable, is how close Popyn's proposal reflects the same design principles as the plans from Delcuve. It confirms that a whole generation of architects - regardless of whether they were active in the colony - had been educated with the pavilion typology and the same best practices.

AA/GG 14787.

had access to, and translated from, rather different transnational networks of knowledge exchange. Whereas Delcuve had predominantly based his design on guidelines and best practices stemming from the West, the Léopoldville's authorities seemed to have been inspired by other, less conventional examples. It is, however, much harder to precisely pinpoint the direct influences they drew from, than this was the case with Delcuve's design. Their design process was simply less documented, as it seems to have relied on an 'epistemic community' built up through informal personal connections and individual experiences which local officials acquired throughout their colonial careers and which often cut across linguistic or imperial boundaries.[286]

Through international travels and research missions, several members of the colonial administration must have developed personal know-how and connections that proved useful during the design process of the hospital. As a direct response to the medical building program planned under the *Plan Franck*, the *Médecin en Chef* had already sent out a colonial doctor in 1922 to Loanda 'afin de se documenter au sujet des installations hospitalières, médicales et hygièniques.'[287] Although by the hand of a doctor, the final report was mainly focused on the architecture and design of the *Hôpital de Luanda*, with minute descriptions of the various pavilions, ventilation techniques and choice of materials.[288] Other, higher-ranked medical officers covered even more impressive international trajectories, often supported by research scholarships and emerging international institutions. Dr. Duren, head of the *Service d'Hygiène Publique* of Léopoldville at the time, had spent eight months in Brazil studying tropical diseases at the hospital and research institute of Rio de Janeiro in 1921. Five years later, he was part of a research mission on sleeping sickness organized by the *League of Nations*,[289] the Geneva-based intergovernmental organization founded in the wake of the First World War whose principal mission was to ensure world peace. Under its wings, a *Health Section* was organized to coordinate global health and spread medical knowledge. While the annual bulletins of the *Health Section* contained less direct information on hospital planning than those of the *Office International d'Hygiène Publique*, its Paris-based counterpart, it funded exchanges of medical personnel and organized several international and inter-colonial conferences and research missions.[290] These gatherings were never specifically focused on hospital

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286. Haas (1992).

287. AA/GG 16854, Letter from *Médecin en Chef* Rodhain to *Médecin en Chef de la Colonie de l'Angola Portugaise*, 21 November, 1921. On (hospital) architecture in Luanda, see Milheiro and Burke (2017).

288. AA/GG 16854, *Quelques notes concernant mon voyages à Saint Paul de Loanda,* Report from Dr. Druart, December, 1921.

289. He undertook this mission, which passed through Uganda, Tanzania and Mozambique, together with Dr. Van Hoof, with whom he would later lay the foundations of the hospital building program of the Ten-Year Plan. *Biographie belge d'outre-mer* 1968, p. 503); *Biographie belge d'outre-mer* 1989, p. 136); LON, *Procès-verbal de la sixième session*, 26 April, 1926 to 1 May, 1926.

290. Exchanges for both colonial doctors and sanitary engineers were organized. LON, *Procès-verbal de la huitième session*, 13 to 19 October, 1926.

architecture, but did include organized visits to medical infrastructure in various colonial contexts across Africa. They offered a platform where colonial doctors and officials could meet and mingle, network, exchange experiences, and become acquainted with the varying approaches of hospital construction in Africa's different colonies.[291]

Such intangible networks of personal experiences and connections are of course hard to track based on archival traces alone, and it is even more difficult to precisely chart if and how these exactly influenced the local design. If anything, much of these experiences may have served as subconscious yet invaluable background information that allowed colonial officials to assess their preliminary designs, rather than as direct sources of inspiration. Nonetheless, Léopoldville's local officials did draw from a few concrete examples as well. In 1925, during the preparation of the design, the *Médecin Provincial*, Dr. Repetto requested documentation on foreign hospitals. Through the official chain of command, his demand eventually reached the Belgian Ministry of Foreign Affairs, which sent out letters to various Colonial Ministries to obtain the necessary information.[292] Repetto received multiple responses from various colonial cities such as French Dakar, Saint-Louis and Bamako, and Portuguese Loanda.[293] Unfortunately, the documentation appended to this correspondence has been lost, and it is unclear whether plans or other architectural information was ever included.

Within the vast Belgian colony, too, information was exchanged. The Léopoldville branch established a connection with the remote municipal authorities of Elisabethville, who sent plans and a photo album of their local European *Clinique,* as well as plans of a French hospital complex in Casablanca, which had served as an important source of inspiration for the Elisabethville design.[294] This documentation would prove vital for Léopoldville's local architect Vander Elst and Dr. Van Hoorde, who seem to have directly based their floorplan on these existing examples. While the plans of Elisabethville's hospital depicted an internal corridor for services and an external veranda, the photo album confirmed how such sun-bathing, well-ventilated verandas would offer European patients the space for the relaxation and healthy rest that was believed vital in the harsh tropical climate.

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291. See e.g. the report of the inter-colonial yellow fever conference of Dakar by Selwyn-Clarke (1929).

292. The request was very specific, indicating that Dr. Repetto and colleagues already had a good grasp of what constituted the best practices of hospital construction in colonial Africa. As the Minister of Colonies wrote to the Minister of Foreign Affairs: Il me serait bien agréable de pouvoir obtenir par votre intermédiaire les dispositions réglementaires concernant les hôpitaux situées dans les centres suivants: Johannesburg et Bulawayo (Afrique du Sud), Freetown (Sierra Leone), Saint Paul de Loanda (Angola Portugais), Dakar (Afrique Occidentale Française), Casablanca (Protectorat du Maroc).

293. There was a direct boat connection between Matadi and Dakar, and boats from Antwerp to Congo often moored in Saint-Louis or Dakar, establishing a connection between especially these two cities through which knowledge could be exchanged.

294. See AA/GG 15953, Letter from *Médecin en Chef* Trolli to *Médecin Provincial* Repetto, 7 November, 1924.

Image 68 . Tangible sources of inspiration for the *projet Vander Elst-Van Hoorde*

Elisabethville's design of a central service corridor separated from a semi-private veranda for the patients clearly pleased architect Vander Elst and Van Hoorde. They translated the system to the larger pavilions of Léopoldville's hospital, and avoided that the hallways became too dark by borrowing from the Casablanca hospital, where pavilions were subdivided in several wings but connected by a central corridor.

BR: AA/3DG 1231; other images: AA/GG 16850.
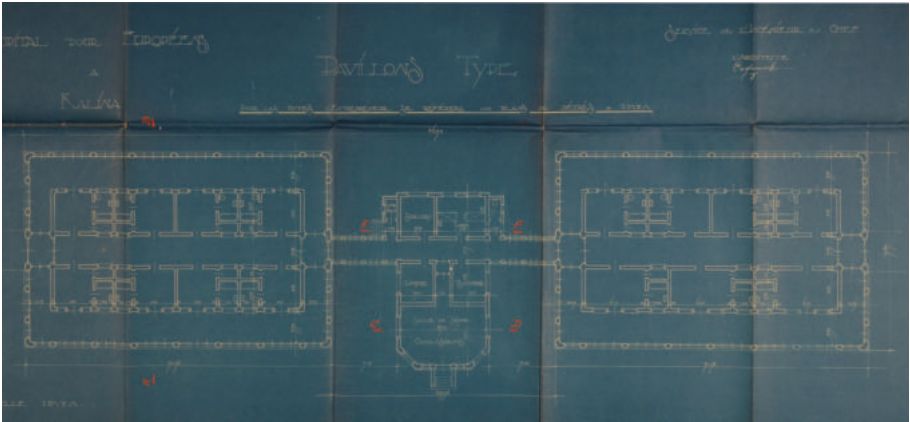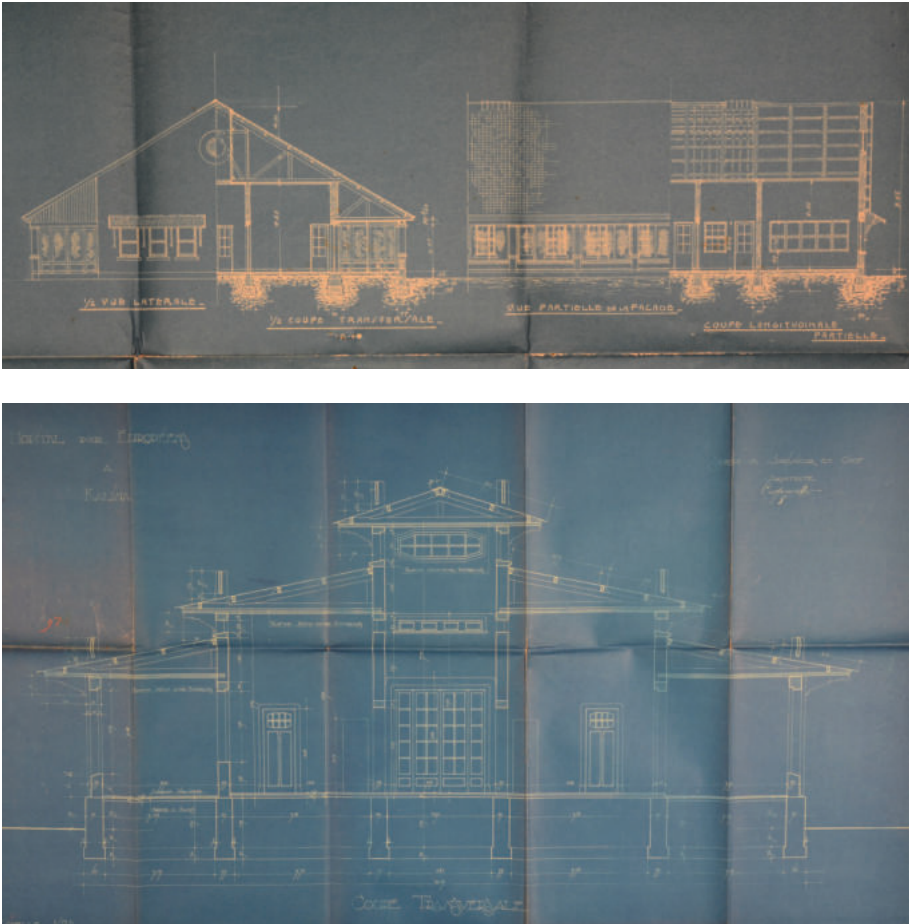
Image 69 . Sections of the Elisabethville hospital and the *projet Vander Elst-Van Hoorde*

Vander Elst and Van Hoorde translated the section to the local tropical climate of Léopoldville. By dividing the roofing and adding additional windows, the central corridor would engender a chimney-effect, cooling down the adjacent patient rooms by creating additional drafts of air through internal ventilation shafts.

Above: 1930, AA/GG 15920; below: *ca.* 1930, AA/3DG 1231.

Vander Elst and Van Hoorde quickly adopted this idea of a central corridor and an external porch, but translating this scheme to the context of Léopoldville posed new problems. On the one hand, located in the future capital of the colony, the pavilions in the hospital of Léopoldville had to be much larger. As a result, the central corridor would be too dark, for both personnel and patients. The floorplan of pavilions in the hospital of Casablanca, with its double wings connected by a central corridor, may have offered a partial solution. Just like the Moroccan example, Vander Elst and Van Hoorde divided each pavilion into two separate sections, connected by a central hallway, which profited from additional sunlight from the side. On the other, the Katangese or Moroccan climate is distinctly different from that of Léopoldville where European officials were much more anxious about excessive heat in the patient rooms. It was especially here that Vander Elst and Van Hoorde had to innovate and developed their own response. Where the hospital in Elisabethville had a single gabled roof and the corridor was only lit from the sides, the solution in Léopoldville was rather different. Divided into three levels, the roof not only functioned as an extra skylight, but its sideways windows were designed to create additional air circulation. The central hallway of over seven meters high would create a chimney-effect and cool down the adjacent patient rooms by creating drafts of air through internal ventilation shafts. At the meetings where both projects were compared, local officials sold this ingenious system of natural ventilation as one of the main trumps of what they proudly called the 'projet Vander Elst-Van Hoorde.'[295] When pitching his own proposal to the central authorities, Van Hoorde explained that this corridor was designed as 'un régulateur de température' and would ensure a 'température moins élévée et plus constante,' as opposed to Delcuve's design of 'chambres en enfilade' which would lead to 'variations brusques de température.'[296] To convince the Brussels opposition even more, they compiled an extensive brochure in which they explained how their design's additional cost was justified in comparison to Western standards. Interestingly, they didn't exclusively point to metropolitan sources, but also to German, French, British and Swish publications.[297]

Yet, the hallway that functioned as health regulator was not the only reason why the authorities eventually selected the Léopoldville design over the one from Brussels. As Van Hoorde argued, 'un couloir unique réservé au service permet plus aisément de surveiller les boys,' since 'les vols sont plus faciles sans des chambres a deux portes donnant de chaque côté sur une barzah accessible.' Similarly, a private veranda exclusively accessible to European visitors, patients and personnel,

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295. AA/GG 15899, *Plan-type pour Hôpital pour Européens à Kalina. Procès-verbal de la réunion tenue à Léopoldville*, 28 July, 1928.

296. AA/GG 15899, Note from Dr. Van Hoorde, 12 September, 1928.

297. Again, this testifies to the particular linguistic position Belgian Congo occupied within the colonial world. Contemporary works they referred to included Merkel, Schmieden, and Boethke (1912); Putzeys and Maukels (1928); Slade (1918), as well as several French, Swiss and British conferences.
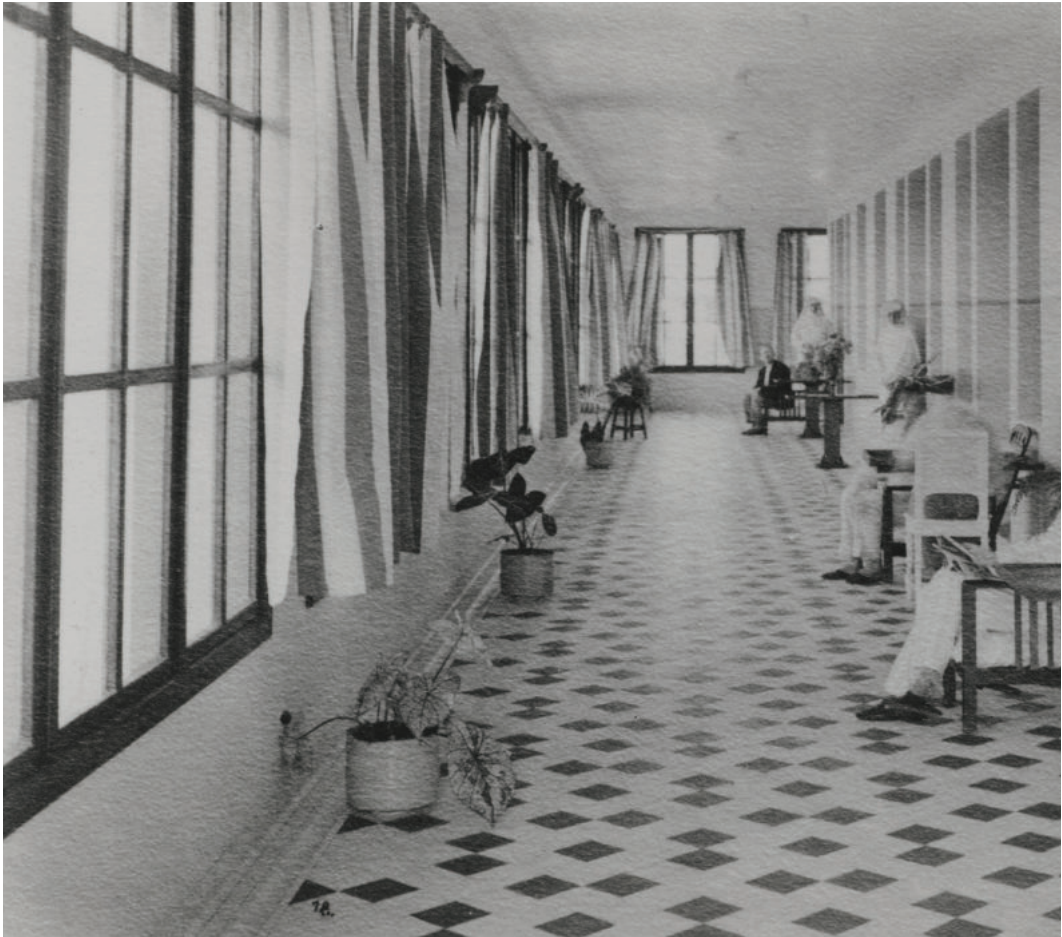
Image 70 . Interiors of the semi-private veranda, and the service hall

While the main goal of the central hallway was to function as a heath regulator, Vander Elst and Van Hoorde also praised their design because it improved control over the African staff, prevented theft, and improved the comfort of the patients who were less disturbed by the staff. As such, it conveniently facilitated racial segregation in the hospital, which, it seems, local officials deemed an additional reason to opt for this proposal.

Left: 1937, MRAC, Franciscan Sisters, AP.0.0.38538.
Right: 1934, MRAC, Franciscan Sisters, AP.0.0.38540-2.
These two pictures are part from a series of photographs that highlight the architectural qualities of Léopoldville's *Clinique Reine Elisabeth* (see also Images 28-31). While it is unclear where these pictures were published, they seem to have been developed for propagandistic purposes, either directly for the Franciscan order, or commissioned by the state.

would increase the 'confort des patients' and make them feel 'mieux chez soi.'[298] By separating the semi-private verandas for patients from the service logistics – most often used by African boys and personnel, who far outnumbered the few European doctors and religious nurses working at the hospital – Vander Elst and Van Hoorde thus created to some extent a de facto racial segregation on the scale of the building. If the main goal of the central hallway was to respond to the tropical climate and the concerns it engendered for European health, its design of separated logistics conveniently accommodated colonial hierarchies and widespread xenophobia about the allegedly contagious African body.

As the last stage in a long search for a local typology, the 'projet Vander Elst-Van Hoorde' was sent to Coquilhatville as the new official 'pavillon-type' for Europeans. The city's architects Popyn and Warny faithfully recycled many of the basic principles of the design, yet had to find a compromise with the steep ambitions of *Gouverneur Provincial* Duchesne. The orientation and urban setting of the hospital was a first step in the local translation of the plans. While Duchesne had preferred to locate the hospital far away from the city center, the central authorities from Brussels had overruled this proposal. Eventually, after a long and heated debate, the hospital would be constructed in fairly vacant territory just next to the future neutral zone. If this gave architects Popyn and Warny the leeway to easily orient the hospital along the ideal east-west axis, as the plans of the 'pavillon-type' stipulated, this also meant that the urban boulevard that led to façade of the hospital clashed with the town's existing grid of streets, which aligned with the river's edge. Since Duchesne had been forced to give in to the demands of the central authorities, however, he was in 'no mood to make concessions on the prestige of the project,' and the grand boulevard was realized even if it created somewhat of an anomaly in Coquilhatville's street pattern.[299]

The Léopoldville design itself also underwent several local adaptations. If the floorplan of the type-pavilion was far too big for the much smaller town, and had to be reduced, it seems the local Public Works Service made some careful and calculated design interventions to still give the complex the prestige Governor Duchesne aimed for. As the head of the service explained, it was precisely this downsizing that 'permettra de dépenser un peu plus d'argent pour l'aspect architectural proprement dit,' and turn the hospital into 'un des joyaux de la ville.'[300] The pavilions were scaled down in a rather straightforward way by joining both wings. While this certainly reduced the width of the pavilions, the central *salle de séjour* was cleverly used to create a more unified and imposing façade, by shifting it forwards, giving it more prominence and increasing its height. Smart repositioning of the pavilions within the larger complex further reinforced the

298. AA/GG 15899, Note from Dr. Van Hoorde, 12 September, 1928.

299. Geenen (2019, p. 103). She draws on earlier, unpublished research conducted by Lagae (2013a), in which he exposed this urban planning anomaly.

300. AA/GG 12641, Internal note from Head of the *Travaux Publics Provinciaux* De Boeck, 24 October, 1928.
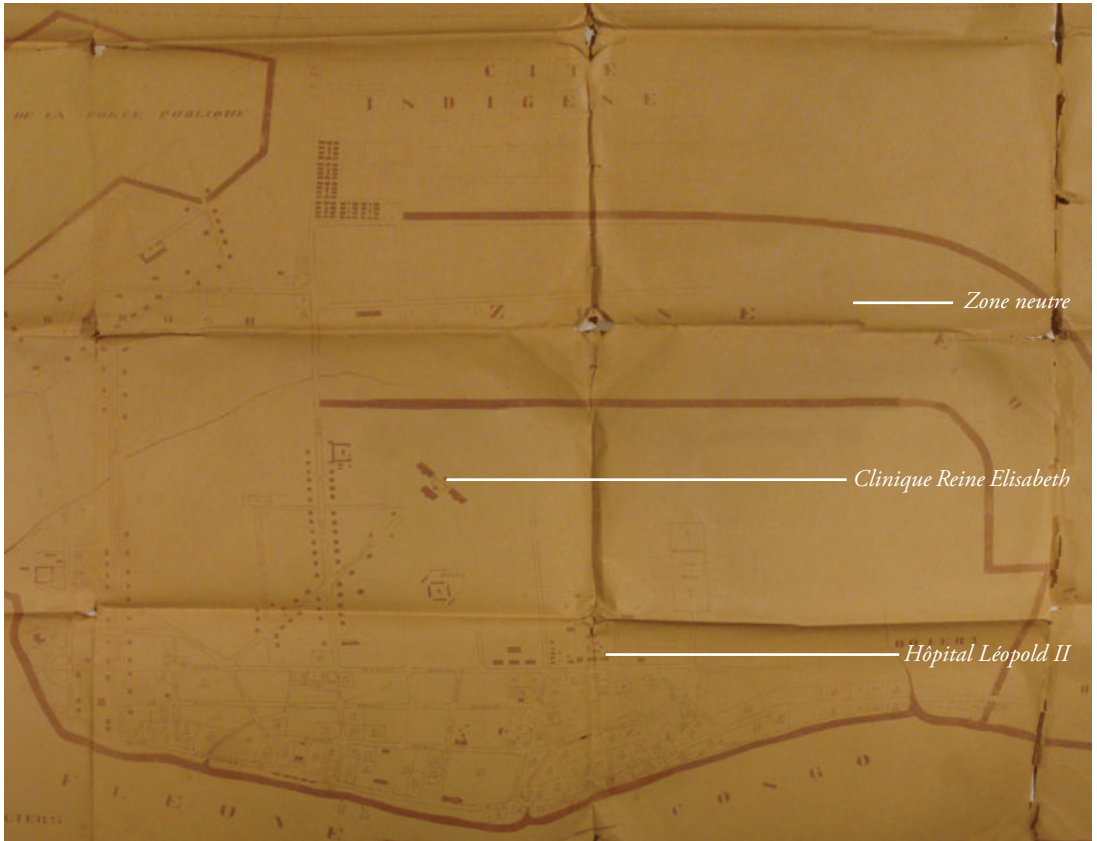
Image 71 . Urban location of the *Clinique Reine Elisabeth*

After long discussions, the hospital was located in a vacant territory close to the neutral zone. This allowed a perfect orientation along the east-west axis. At the same time, this orientation meant that the boulevard leading to the *Clinique,* the urban showpiece of Governor Duchesne, became an anomaly within the existing street grid.

ca. 1930, AA/GG 12836.
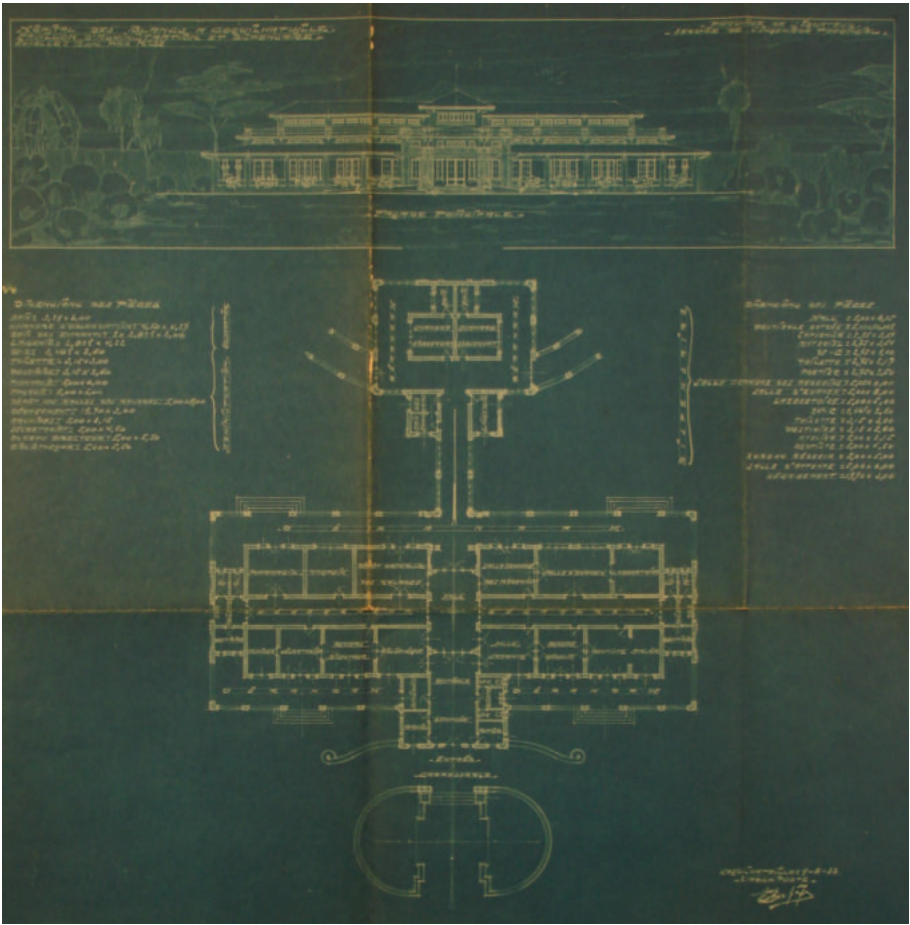
Image 72 . Adapted floorplans of Coquilhatville's *Clinique*

The floorplan of Léopoldville was downscaled by compressing both wings into one. By pronouncing and heightening the central *salle de séjour*, however, the local architects still managed to create an architecturally impressive façade.

ca. 1930, AA/14766.

Image 73 . Adapted *plan d'ensemble* of Coquilhatville's *Clinique*

While the three pavilions were much smaller than their Léopoldville precedents, they were smartly repositioned to create the impression of a continuous and multi-layered façade when approaching the hospital from the central boulevard.

ca. 1930, AA/GG 22315.

grandeur of the hospital, while saving costs at the same time. By bringing the separate pavilions closer together, the architects not only reduced the length of the corridors, but also created the impression of a continuous and multi-layered frontal façade, which further added to the experience of approaching the hospital through the perpendicular avenue. Inside the pavilions, however, the lay-out barely changed and was designed to respond to the same tropical anxieties and colonial agendas. As the tropical climate of Coquilhatville – positioned right on the equator – was considered even more taxing on the European body, the central hallway again had to function as a heath regulator, while the luxurious verandas made sure the hospital offered the revitalizing rest and comfort European patients needed in the tropics. And just as in Léopoldville, while the hallway was translated to the tropical climate, it also materialized colonial hierarchies through the hospital's separated system of service logistics and semi-private verandas.

The *Clinique Reine Elisabeth* in Coquilhatville was thus the final result of a long and multi-sited design process. The hospital's architecture materialized the ambitions of the local Governor to transform the town into a stately provincial capital, but also reflected a deeper incremental search to translate a transnational typology to the tropical and colonial conditions of Belgian Congo. On the one hand, dissecting the various steps in the design process of Coquilhatville's *Clinique* offered an interesting entry point to shed light on important typological changes in the 'periphery' that remain overlooked by architectural research on hospitals focused on the West. On the other, it allows to expand and nuance some of the central issues within the burgeoning architectural research on transnational knowledge exchange. It further challenged the already outdated paradigms of 'diffusion' or 'export,' and through the central role that colonial doctors played in the design of the hospital, it revealed actors, networks and modes of transnational knowledge exchange that have remained overlooked by architectural historians. The history of Coquilhatville's *Clinique* thus not only provides an important counterweight to 'hegemonic presence of Anglophone or Francophone networks in historiographical representations of colonial and tropical architecture', but also highlights alternative flows of architectural expertise that existed beyond 'conventional frameworks of bilateral colonial channels,' and that have remained under the radar in architectural historiography.[301]

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301. G. A. Bremner et al. (2016).

1945 - 1959

Developing a 'medical model colony'

Image 1 . *Force Publique – Hôpital Belge de Campagne.*

Le 7 mars 1946, l'Hôpital Belge de Campagne est rentré à Léopoldville. Voice la foule attendant au débarcement des membres de cette unité qui rentre couverte de gloire.

This image was part of a larger series of photographs that extensively covered the military hospital of Dr. Thomas. While it is unclear if and where this series was published, the aim of these pictures was rather clear: to mobilize the medical campaign of Dr. Thomas as a way to underline Belgian Congo's international medical reputation.
1946, MRAC, J. Costa (Inforcongo), 2017.24.1291.

3/INTRO
'Developmental colonialism' in the post-war period

At the end of 1944, Dr. Auguste Thomas settled back in Léopoldville, after a long military campaign of over four years, during which he headed what was named the 10th Belgian Congo Casualty Clearing Station. With its sixteen European officers, including five other colonial doctors,[1] and 82 Congolese chauffeurs, carriers, *brancardiers*, orderlies and medical assistants, his unit had offered medical assistance to various British military missions, and had provided healthcare to over 45 000 wounded and sick soldiers. His field hospital, which later became known as the *hôpital Thomas*, travelled from Kenya and Ethiopia to Madagascar and even beyond Africa, to Burma, Ceylon and India.[2] During these years, Dr. Thomas encountered firsthand how the conflict affected not only Europeans officers, but also Congolese troops. Although their number of casualties was only a fraction of the toll the first World War had claimed – transport no longer relied on taxing caravans of carriers, but on trucks, boats and airplanes – surviving veterans were nonetheless left with a lasting impression. Many of the troops that needed the care of the Congolese infirmaries had been Europeans. That sick or wounded white soldiers now needed medical assistance from able African personnel irrevocably questioned the colonial order the Belgian authorities had so carefully sought to

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1. Including Dr. Valcke, former *médecin provincial* of Katanga who may have shared his experiences on hospital construction and modular (type-)plans with him. See 2/L.

2. See e.g. https://www.maisondusouvenir.be/dr_thomas.php [accessed: 2 April, 2020].

install during the interbellum. Witnessing victories in Italian Abyssinia against predominantly white troops, the capture of hundreds of Italian officers, and the far more progressive British army with its African officers, 'mit mal à l'idée du "prestige du blanc."'[3] Dr. Thomas and his field hospital undoubtedly further cemented Belgian Congo's international medical reputation. Decorated with multiple Belgian and British military honors, Dr. Thomas and his transportable *hôpital de campagne* 'earned the respect, affection, admiration and honour of all British troops' and were lauded as a 'striking example of efficiency.'[4] Yet that Dr. Thomas witnessed glimpses of soldierly camaraderie between black and white soldiers, and how the conflict made a lasting impression on his Congolese troops, would perhaps impact the development of a medical model colony in an even more profound way. Dr. Thomas was promoted to the colonial *Médecin en Chef* in Léopoldville only a year after the war, and with these experiences as an important background, he ensured that healthcare infrastructure became one of the main pillars of the post-war colonial policymaking.

The war increased attention for Congolese welfare in the post-war period in other ways as well. Apart from leaving a lasting mark on surviving Congolese veterans, the conflict did not spare the population in the colony either. After the German army completely overpowered the metropolitan Belgian forces and occupied the country in a mere eighteen days, the military position of Belgian Congo remained unclear for a brief period of time. In the end, however, *Gouverneur Général* Pierre Ryckmans decided to side with the Allies and without an operative Ministry of Colonies in Brussels, he took over effective command of Belgian Congo. The Allied forces were in constant need of raw mining resources – including the Congolese uranium that would ultimately decide the war. This led Ryckmans to double the amount of mandatory days the African population had to work in service of the state from 60 to 120 per year. In rural Congo as well as in the many mining centers of the colony, the Congolese working population suffered, not only from the harsh working conditions, but also because healthcare services to the colonized were scaled down due to a lack of financial means.[5] After the war, many important colonial figures such as Pierre Ryckmans or Joseph Van Wing recognized the *effort de guerre* of the Congolese population, a recognition that would prove of major importance for the increased attention to African welfare in Belgian colonial policymaking throughout the post-war period:[6]

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3. Leloup (2015, p. 58) explains how the Belgian colonial authorities ensured this 'prestige du blanc' during the interbellum through a minute selection process of colonial officials. It was this carefully orchestrated prestige that formed an important 'entrave moral à toute idée d'africanisation des cadre' of the Belgian colonial military.

4. *Biographie belge d'outre-mer* 1968, p. 993).

5. The head of the provincial Medical Services of *Equateur*, for instance, decided in 1940 to suspend costly surgical operations, and Congolese were dissuaded to seek medical help: 'l'activité chirurgicale est momentanement suspendue dans les Hôpitaux de la Colonie. Je vous prie, par conséquent, de ne plus encourager les indigènes à se rendre dans les Hôpitaux pour se soumettre à une intervention.' AA/GG 22428, Letter from *Médecin Provincial* Schwers to territorial administrators, 23 May, 1940.

6. Van Wing (1945, pp. 584, 601). On the *effort de guerre*, see also Etambala (1999, pp. 73-77).

Pendant cinq ans nos populations furent soumises à un effort de guerre extrêmement intense et varié. Toute la population noire a été mobilisée, pour produire le plus possible et le plus vite possible, pour exporter ce que réclamaient les Alliés et pour fournir ce qui manquait aux importations.

The second World War not only meant a watershed for Belgian Congo's internal politics, as the conflict shattered the Congolese 'prestige du blanc,' exhausted the Congolese labor population and had even made high-ranking policymakers such as Dr. Thomas and Governor General Ryckmans aware of the many problems the colonized faced. It also marked the emergence of the 'development paradigm' and an international political climate that became increasingly critical of colonial rule. At the end of the conflict, some fifty nations joined forces to form the United Nations. In contrast to its predecessor, the League of Nations, long-established imperial powers such as Great Britain and France were no longer at the center of this international alliance. Instead, the US and the Soviet-Union emerged as the leading heavyweights. Without large dependent territories, both nations had little stake in supporting continued colonialism in Africa and beyond. As the delegate of the US put it at the first conference of the UN: 'The colonial system is obsolete and should be done away with as soon as possible.'[7] At the same time, the UN also housed several former colonies, especially from South America, who of course sided with the US and the Soviet-Union in their critique on colonialism.[8] The founding charter of the UN reflected these critiques. It stipulated that particular colonial affairs, such as political emancipation and welfare of colonized populations, would from then on be put under international supervision. Colonial rule, hitherto 'accepted as a providential act conferring the blessings of civilization on benighted lands,' suddenly had to be legitimized to the international political arena.[9]

Nevertheless, while the charter of the UN marked a pivotal first step towards African independence, it remained rooted in a belief in Western superiority. It emphasized how colonial powers should shepherd dependent territories through their slow process of civilization and their various 'stages of advancement.'[10] These ideas clearly reflected the global emergence of the 'development paradigm,' which was based on a deeper assumption of the linear convergence of global history. As a post-war revival of older positivistic beliefs, this vision of development implied that every territory or nation 'not only could but would develop along the scientific-industrial lines pioneered by the West.'[11] Economic theories that emerged in the post-war period were also rooted in this new paradigm.

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7. Quote from John Foster Dulles at the San Francisco Conference, 25 April, 1945. Quoted in: Ryckmans (1948, p. 53).

8. See also Vanthemsche (2012, pp. 138-140) on Belgian political reactions towards the UN.

9. Young (1994, p. 186).

10. 'Declaration regarding Non-Self-Governing Territories,' Charter of the United Nations, San Francisco, 1945, p. 14.

11. Adas (2003, p. 36) in De Raedt (2017, p. 55).

Development economists increasingly proclaimed that 'underdeveloped' economies such as Belgian Congo had to follow the same 'stages of economic growth' Western countries had historically gone through in order to economically develop. To be able to do so, however, an external – and thus Western –'big push' was necessary to kickstart this process, again appointing Western powers as the shepherds of progress.[12] This view translated into a widespread belief amongst colonial economic policymakers in state interventionism, or, as Frederic Cooper explains, in the belief that 'government planning and government investment – not just the "natural" operations of the market – would help African economies emerge from backwardness.'[13]

These theories of historical linear convergence also echoed through in slowly changing notions of race, where a Darwinian explanation of human differences was increasingly being supplemented with a socio-historical view.[14] Policymakers now categorized peoples across the world into differing stages of development, but all positioned and arranged on the same linear axis from primitive to civilized. If this shift meant that social progress and political emancipation became conceivable, there was no doubt about who was to steer and tutor Africans in this quest. Despite the development paradigm, the colonized were still far away from determining their own destiny.

The *effort de guerre*, the increasing international political pressure, and the new paradigm of development led to widespread changes in colonial policymaking, which historians such as Crawford Young and Frederick Cooper characterized as 'welfare colonialism' or 'developmentalist colonialism.' Seemingly oxymoronic, these notions acknowledge the genuine attempts by colonial authorities to improve living conditions of the colonized, while not losing sight of other motives of economic gain, control, and international legitimization colonial administrations were striving for. This shift in colonial policymaking happened across the globe. Colonial powers started redefining the relationship with their dependent territories, deploying notions that suggested a more egalitarian

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12. Rostow (1960). For a concise (and entertaining) overview on the development paradigm from an economic point of view, see Krugman's essay on *The Rise and Fall of Development Economics*: http://web.mit.edu/krugman/www/dishpan.html [accessed: 7 July, 2020]. As he explains, the argument for such a 'big push' was that poor countries were stuck in a 'circular causation,' where industrialization was impossible since there was no consumer's market, and a middle class of consumers could not develop because there were no well-paying industrial sectors. As development economists believed, a 'big push,' or a concerted and large-scaled state intervention, in all or many sectors of a developing country's economy was necessary to escape this 'underdevelopment trap.'
These views were shared by various Belgian policymakers and academics. Next to Pierre Ryckmans, Jef Van Bilsen, professor at the Catholic University of Leuven, thought planism was self-evident in colonial Congo, arguing that 'personne ne peut mettre en doute l'utilité et même la nécessité d'une politique planiste, là où il s'agit de développer un pays immense, arriéré et primitif.' Van Bilsen (1949, p. 225). For a biographical description of Van Bilsen's career, see Kwanten (2009).

13. Cooper (2009, p. 86).

14. Architectural historian Cheng (2020, p. 150) has indicated this shift already started in the mid-19th century, summarizing it as a change 'from an older ideology of racial naturalism which positioned non-Europeans as inherently inferior, to a racial historicism that deemed these same groups as immature and less developed.'

alliance: the idea of a Commonwealth was to replace the British Empire, the French introduced the notion of the *communauté française* and the Belgians the concept of a tenth province or a *communauté belgo-congolaise* to replace the by then all-too paternalistically sounding *dominer pour servir*.[15] Beyond these largely symbolic gestures, colonial powers also made actual policy changes. Great-Britain, France and Belgium all developed large-scaled plans for socio-economic development, respectively the British *Colonial Development and Welfare Act,* the French *Fonds d'investissement pour le développement économique et Social* and, most importantly here, the Belgian *Plan Décennal pour le développement économique et social du Congo belge*.

Belgium's *Plan Décennal* was a prime example of 'welfare' or 'developmental colonialism.' On the one hand, similar to its predecessor, the *Plan Franck*, the Ten-Year Plan continued to serve the colonial extraction economy through classic investments in the colony's 'armature économique,'[16] but now on a much larger, industrialized scale. On the other, the plan aimed to establish a colonial rendition of the metropole's welfare state through social amenities, housing, education and, most importantly, public healthcare.[17] It was this double ambition of industrialization and welfare that colonial state propaganda mobilized to truly establish Belgian Congo's reputation as a model colony under the Ten-Year Plan. By 1955, Time Magazine, for instance, proclaimed the colony as a 'tropical cornucopia,' and stated that 'nowhere in Africa is the Bantu so well fed and housed, so productive and so content as he is in the Belgian Congo.'[18] The network of healthcare infrastructure planned under the Ten-Year Plan was a cornerstone in this image. From large, flagship hospitals in urban centers, to the quantitative vastness of the rural hospital network, it was destined to cement Belgian Congo's reputation of a medical model colony, and eventually established a legacy that lingers on in public debates to this day.

By tracing how public healthcare was impacted by the various changes after the second World War, this third and last chapter nuances this legacy, and provides a lens to gain a more fine-grained understanding of how welfare colonialism materialized in the medical model colony. The **small** scale focuses on what had to

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15. On the *communauté belgo-congolaise*, see Lauro (2016, p. 64); Stenmans and Reyntjens (1993); Vanthemsche (2012, pp. 84-87).

16. Jaspar and Passelecq (1932), see also 2/Intro.

17. The budget outlined for hygiene and medical infrastructure was the 4th largest item of the Ten-Year Plan, surpassing investments in education and housing, but also in e.g. water and electricity services. Nonetheless, the largest investments were still made in road and railway infrastructure, reflecting the continued emphasis on an extractive economy. Vanthemsche (1994, p. 68).

18. Congo: Boom in the Jungle, *Time Magazine*, May 16, 1955, 2. This celebration of Belgian Congo by an American periodical seems hardly surprising: the *Belgian Government Information Center* in New York successfully led to various propagandistic articles across periodicals such as the *Reader's Digest* or the *Saturday Evening Post*, and were later even compiled in a brochure published by the *Center*, see: The Belgian Congo appraised: A selection of articles on the Belgian Congo recently `published in the American weekly press, New York, 1952, pp. 3-7; pp. 9-24. On this American-Belgian propaganda center, see also Lagae (2002, p. 332).

become one of the most prestigious hospital projects for Africans realized under
the Ten-Year Plan, the *Hôpital des Congolais* in Elisabethville. It was specifically
designed as a billboard of Belgian Congo's new policies of welfare and development,
both to the outside world and to the own colonized population. Despite these
(architectural) ambitions, only a small portion of the design was ever realized,
and the hospital has been conspicuously left out of colonial propaganda. In the
small scale, I dissect the reasons why the design largely remained a paper project.
Internal tensions between various government branches hampered a smooth
design process – in particular between conservative local administrators, and
Brussels medical officials aiming to implement more progressive welfare policies.
Nevertheless, it was especially the recruitment of a private architect, Noël Van
Malleghem, that complicated matters, as he not only had to navigate within this
tense constellation of various government actors, but was also pursuing his own
professional agendas. The clashing conflicts between the various stakeholders
meant the project suffered numerous delays, and was eventually never completed.

The ***medium*** scale addresses the effects of the post-war rise of 'welfare colonialism'
on segregation in hospital infrastructure, by zooming in on the provincial capital of
Coquilhatville. During the interbellum, the Medical Services had been important
proponents of urban segregation, and used arguments of public healthcare to
realize a neutral zone and segregated hospital facilities marked by politics of in/
visibility. After the war, however, a new generation of officials such as Dr. Duren
and Dr. Thomas arose, advocating a markedly different and progressive urban
healthcare policy. Termed the *politique de rapprochement*, they argued for shared
urban hospital infrastructure and more moderate forms of racial segregation,
not only from a medical, but even from a political point of view. However,
just as in other colonial towns, many local administrators in Coquilhatville did
not support this policy change, causing important delays and watering down
its implementation until it was eventually never truly realized. Nevertheless,
healthcare segregation was slowly challenged at the local level. From the end of
the war onwards, Indian tradesmen, African migrants, and Congolese évolués
were demanding recognition and rights as distinct social categories and 'middle
figures.' The the question of access to European medical care was at the heart of
these urban struggles. Although the *politique de rapprochement* thus remained
a progressive, but unfulfilled promise, local voices outside Coquilhatville's
administration nonetheless increasingly questioned and complicated colonial
urban binaries.

Whereas these two first scales take place in an urban environment, the ***large*** shifts
its scope to the rural healthcare infrastructure. Under the *Plan Décennal*, the
colonial government planned an extensive network of numerous rural hospitals
and satellite dispensaries in even some of the most remote corners of the vast
colonial territory. Through colonial propaganda, the Ten-Year Plan (and its
medical program in particular), truly consolidated Belgian Congo's reputation

of a (medical) model colony. As explained below, the *Plan Décennal* has received much more academic and popular attention than its predecessors. Nevertheless, many historical studies either recite the same colonial propaganda without truly digging deeper, or merely focus on what was *planned* onder the Ten-Year Plan, rather than scrutinizing how, and to what extent this planning was effectively *realized*.[19] As such, by assuming that the colonial government was perfectly able to execute its *Plan Décennal* as outlined, these publications implicitly reconfirm the image of Belgian Congo as a model colony and a potent government apparatus. In the ***large*** scale, I aim to nuance this view, by complementing the planning of the medical program of the Ten-Year Plan with its actual, local implementation. Type-plans form a particularly interesting entry point to do so, since they were centrally devised as bureaucratic 'technologies of distance,' but had to be translated to local realities of climate, topography, budgetary restraints or regional healthcare challenges. By studying the central *and* local use of these type-plans, an often messy, improvisational and flexible modus operandi behind the vast network of healthcare infrastructure surfaces that deviates from the classic images of Belgian Congo as an autocratic government machinery that efficiently executed its mirage of a medical model colony.

Lastly, the ***architecture*** section zooms in on the design process of the new *Hôpital des Congolais* in Léopoldville by Belgian architect Georges Ricquier. The second World War had not only brought about sweeping socio-political changes, it also marked the definite shift in the West away from the pavilion hospital towards new typologies such as the 'high-rise and 'corridor hospital' – a hybrid typology with multiple multi-story wings. As Léopoldville's new hospital had to become a state-of-the-art flagship complex, the architect naturally imported this "modern" hospital typology to the colonial context. Translating this typology – originally developed for distinctly "Western" patients and staff – to the assumed needs of its African users, proved a difficult balancing act. On the one hand, the post-war shift towards 'welfare' or 'development colonialism' meant that the social "progress" of the colonized population was not only conceivable, but even an increasingly important policy goal in itself. This 'politique de transition' also had a direct impact on colonial hospital design, as Ricquier had find ways to architecturally translate Western models to a target audience of patients that were not Western, yet should, according to the post-war development paradigm, evolve along the linear socio-historical path of westernization. On the other hand, these typological changes in hospital planning had also led to the emergence of diagrams as important architectural tools of design and visualization. As I will argue, in the colonial context, however, tis instrument became used in a much more pervasive way, allowing to design and visualize racially segregated logistics to a scale unseen before.

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19. See e.g. Etambala (2008); Vanthemsche (1994, 2005); De Meulder (1994, 2000), and below for a more extensive historiographical overview.

(Photo et cliché Essor du Congo)

Ici, en dépit du rapprochement excessif des lits, il a fallu disposer des matelas à même le sol.

(Photo et cliché Essor du Congo)

Avec des moyens de bord, une salle supplémentaire a été aménagée en fermant une barza. Les lits s'y entassent cependant encore et certains d'être eux sont occupés par plusieurs malades.

Image 2 . Pictures of 'La grande pitié de l'hôpital Prince Léopold d'Elisabethville.'

With a mostly European readership, the newspaper *L'Essor du Congo* acknowledged how the article and its pictures may have been graphic and shocking, and possibly even undermine Belgian Congo's medical reputation. Nonetheless, it deemed the situation too urgent to be left undiscussed. As disclaimed in the article: 'Nous avons longtemps hésité à publier ces photos, car nous savons qu'elles pourraient servir la propagande des détracteurs de l'œuvre belge en Afrique. Mais nous pensons que la situation de notre hôpital a trop duré et qu'il est opportun de mettre le gouvernement devant ses responsabilités.'

L'Essor du Congo, 4 February, 1956.

3/SMALL

A paper project:
Elisabethville's *Hôpital des Congolais*

In 1956, *L'Essor du Congo*, a local newspaper in Elisabethville, published a scorching article on the dilapidated state of the city's old hospital for Africans. Tellingly entitled 'La grande pitié de l'hôpital Prince Léopold d'Elisabethville,' it published shocking pictures of makeshift wards and Congolese patients sharing beds or sleeping on the floor, unveiling a grim side of the Belgian medical model colony which the colonial government anxiously sought to keep out of the media. As the piece explained, the town had been promised new hospital infrastructure for Africans since the publication of the Ten-Year Plan, but construction had suffered considerable delays and had still not commenced.[20] In Elisabethville, the second largest city and mining capital of the colony, new hospital infrastructure was considered of particular importance under the Ten Year-Plan, both for local healthcare services as for the colony's international prestige. This was equally the case for the new hospital project in Léopoldville, which was being planned simultaneously. The colonial authorities assigned the design of these new flagship *Hôpitaux des Congolais* to two private architects: Georges Ricquier in Léopoldville,

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20. As a matter of fact, the city's *Comité Urbain* had already decided in 1944 that new hospital infrastructure was to be urgently constructed. AA/GG 10929, *Procès-verbal de la réunion du Comité Urbain*, Elisabethville, 3 July, 1944.

and Noël Van Malleghem in Elisabethville.[21] For both architects, this commission served as a compensation for earlier urban surveys they had conducted in each town respectively. Nevertheless, the decision to outsource the projects to external architects was also made for other reasons. The authorities hoped that this would alleviate the overworked Public Works Services, that these private architects would be unburdened by sluggish administrative procedures and that they would be able to lend the appropriate architectural grandeur to the project.

These hopes would prove unfounded. While only the foundations of Ricquier's design were ever realized, the situation in Elisabethville was barely any better. It took eight years of designing and discussions before construction started in 1957, and only a minor part of the first of three construction phases of the hospital was ever realized. In the meantime, the city's African population had almost tripled, and the situation of the overcrowding and increasingly obsolete old hospital made painstakingly clear how problematic these delays in fact were.[22] How could a building project which both local voices and the Ministry of Colonies considered vital to the colonial project of Belgian Congo and its international reputation, remain a paper project? Why was one of the largest and most politically important hospital projects after the second World War, the period that truly cemented Belgian Congo's legacy of a medical model colony, never completed? According to the authors of the newspaper article, the reason for these ' impardonnables retards' was clear, and they weren't far from the truth either: 'C'est le procès des méthodes paralysantes, le procès d'un partage d'autorité entre l'administration de Bruxelles et de la Colonie, le procès de l'éparpillement des responsabilités.'

This section tries to dissect the administrative processes that caused these delays, by charting the complex constellation of various actors and concerns that influenced the design process behind the hospital. Sociologist George Steinmetz has used French philosopher Pierre Bourdieu's concept of a 'social field' to characterize the complexities of a colonial governments organizational structure, and while he focused on German colonization, his observations are equally relevant for Belgian Congo. Rather than a monolithic government apparatus, in which all branches perfectly collaborated and executed orders along the chain of command, the colonial state consisted of a constellation of multiple, and sometimes opposing actors often deploying leverage and administrative procedures to vie for their proper interests, concerns and anxieties. As such, colonial administrations functioned as 'social field, riven by dynamics of conflict' which possessed its own, internal 'habitus', or implicit code of conduct.[23]

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21. The changed terminology – *Hôpital des Congolais* instead of *Hôpital des Noirs* – is to some extent indicative of the new shift in post-war policymaking. It was applied to many new hospitals for Africans throughout Congo, though not always consistently. On the design of Ricquier's Léopoldville hospital, see 3/A.

22. While in 1945, the city counted around 45 000 Africans, this number had risen to over 130 000 by 1955. See *Rapport Annuel*, 1945-1946; 1955.

23. Steinmetz (2008, pp. 591, 596).

These internal conflicts, tensions, and procedural codes often caused substantial delays in implementing colonial policies, and this was no different in the hospital for Africans in Elisabethville. There were numerous stakeholders involved in the design process, from the Ministry of Colonies, the central *Service Médical* and the provincial *Service des Travaux Publics*, to the city's local *Comité Urbain*. Coordinating their agendas had always been difficult, yet it was the post-war rise of private architects within the 'social field' of the colonial state that truly complicated matters. It are these clashing interests, within the colonial government, but especially between the government and the the private that are crucial to understand why one of the largest and most prestigious hospital projects of the medical model colony was never finished.

During the interbellum, hospitals for Africans were never the object of an extensive architectural debate, and, as became clear from the *Hôpital de Léopold-Est*, were sometimes even consciously concealed by a politics of invisibility. Only the provincial hospitals for Europeans were considered as architecturally important landmark projects, and it was only for these hospitals that the Ministry of Colonies had recruited an external architect during the interwar. The post-war policy shift towards 'welfare colonialism' however, turned hospitals for the colonized from functional barracks, barely considered by architects, into important architectural projects. Colonial governments, on the one hand, used hospital architecture for Africans as the ideal billboard of their attention to the welfare of the colonized, and deployed these buildings to legitimize colonial rule to the outside world. In Belgian Congo and beyond, colonial governments recruited private or well-known hospital architects in the belief that they would combine the necessary technical know-how with the design experience necessary to develop grand hospital designs.[24] But not only colonial governments devoted time and energy to medical infrastructure for the colonized. The architectural profession also started to pay increasing attention to the design of colonial hospitals. European architectural journals and magazines increasingly featured medical infrastructure for Africans.[25] As a result, private architects also increasingly recognized colonial hospitals as prestigious and well-paid opportunities to design a milestone in their architectural careers.[26]

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24. The hospital in Brazzaville, for instance, was designed by well-known hospital architect Henri-Jean Calsat, see Lagae (2013c).

25. E.g. in specialized issues of magazines such as *L'Architecture d'aujourd'hui*. See 3/A for a more thorough discussion.

26. It seems the commission of the two hospital project to Van Malleghem and Ricquier was envied by other Belgian architects. Between 1952 and 1953, for instance, architect Maurice Hosdain, who had recently organized a conference on hospital architecture under the auspices of the *Conseil Supérieur d'Hygiène*, had offered his services to Minister, not only arguing that he was an expert of hospital design, but also noting that 'Certains hôpitaux ont été confiés à des architectes sans doute de valeur, mais probablement inexpérimentés en la matière, que je vous prie de croire est fort complexe.' AA/3DG 1051, letter from *architecte* Maurice Hosdain to *secrétaire*, 26 November, 1953. On the works of Maurice Hosdain, see also *Bâtir*, 67, 1938, pp. 276-279.

Throughout the design process of the new hospital for Africans in Elisabethville, Van Malleghem thus balanced two agendas. On the one hand, he was constantly pressing for a grand design, which would give him both a large commission and – he hoped – critical acclaim in the architectural field. This created a clash of conflicts with the central authorities.[27] They too were aiming for a prestigious project to underline the colony's international reputation, but, still bound by the financial limits of the Ten Year Plan, tried to get the best design possible for the budget available. This tug-of-war between the private architect and the policymakers responsible of the colony's finances caused multiple renegotiations, not only about the design but also about the terms and conditions of the contract. On the other hand, to receive commission or acclaim, Van Malleghem first and foremost had to ensure his magnum opus was effectively realized. With the multiple, and often opposing agendas of the various branches within the 'social field' of the colonial administration, however, this was not an easy task. He had to communicate with different parties, reconcile conflicting views, and – perhaps most importantly – recognize who was ultimately in charge and was thus his most important ally. As a a external architect with limited colonial experience, interpreting and understanding this new code of conduct took time. This was all especially the case since the post-war policy changes sharpened the differences between the central authorities who strived for new forms of 'welfare colonialism,' and local officials, who were more concerned with the well-being of the European population and adhered to more conservative, persistent logics of racial segregation. Van Malleghem's design had to hold the middle ground between these views, and the multiple revisions and fine-tuning this necessitated led to even more delays.

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27. Jackson and Holland (2014, p. 161) have noted similar conflicts of interest between private architects Edwin Maxwell Fry and Jane Drew, and the British Public Works Department during the design of a hospital project in Kumasi.

An external architect procuring a state commission

Although the *Comité Urbain* of Elisabethville had already decided to construct a new hospital for Africans in 1944, the plan at the time was still to charge the local Public Works Services with the design. The decision to recruit a private architect only came much later, and was the result of intelligent and well-timed lobbying from Van Malleghem, and of the larger recognition architects and urban planners were increasingly receiving in colonial society. With the publication of the Ten-Year Plan, the colonial government had placed urban planning high on its agenda.[28] The *Gouvernement Général* founded a proper urban planning service in the capital of Léopoldville, and published a decree on urban zoning for Belgian Congo, stipulating that urban zoning schemes had to be developed for every town in the colony.[29] For the three largest cities, however, the government decided that its own services would not do, and three external urban planners were recruited to conduct an urban survey that would lead to a well-founded *plan d'aménagement* for the future. The remuneration for this assignment was unusual: rather than being paid directly, the three architects would be attributed a large public building project, of which the generous honorarium was promised to also compensate their work as urban planners. Georges Ricquier was assigned to Léopoldville and would become the private architect of the city's local hospital for Africans. Interestingly, while Jean Gilson was assigned the survey of Stanleyville, and the architect repeatedly tried to receive the commission for the *Complexe Hospitalier* in Bukavu, he was eventually paid directly. Lastly, Noël Van Malleghem conducted the survey of Elisabethville, and, just as Ricquier, was also assigned the local hospital project, but he had to strategically lobby before eventually acquiring the commission.[30]

With his analysis of multiple aspects of the urban fabric, ranging from demographics, urban functions, social and cultural services, and infrastructure, Van Malleghem's study of Elisabethville is a clear example of the importance of the 'survey' and 'zoning' in the discipline of urban planning at the time. The architect, however, resided in Brussels, and his survey was mainly conducted from the metropole. This intervention, unilaterally imposed by the central authorities of Brussels and Léopoldville, caused indignation with the Elisabethville's local *Comité Urbain*. They felt bypassed, and especially the fact that Van Malleghem hadn't even consulted the Committee during his first research missions in town,

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28. Almost a fifth of the total budget of the Ten-Year Plan was attributed to 'Bâtiments Civils – Urbanisme'. Ministère des Colonies (1960, p. 7).

29. The development of these schemes, however, was not without issues, and often faced considerable delays. Lagae (2002, p. 82).

30. The result of these studies was published by the Ministry of Colonies in 1951 as an extensively documented urban atlas under the name of *L'Urbanisme au Congo belge*. See also Lagae (2002, p. 82). Despite being refused, Jean Gilson did continue to conduct multiple urban planning studies for various other colonial towns, including Bukavu, Usumbura and Moanda, and would design other, unrelated architectural projects in Belgian Congo. See Annex 1 in Lagae (2002).
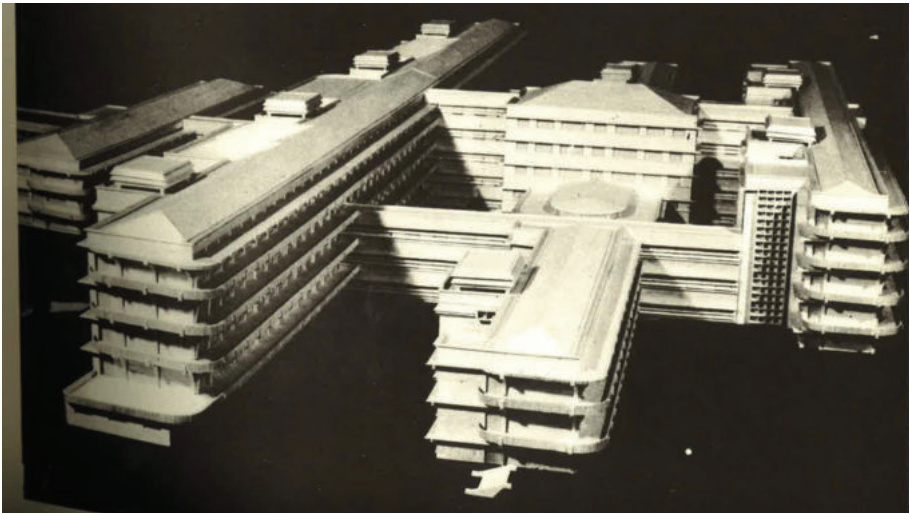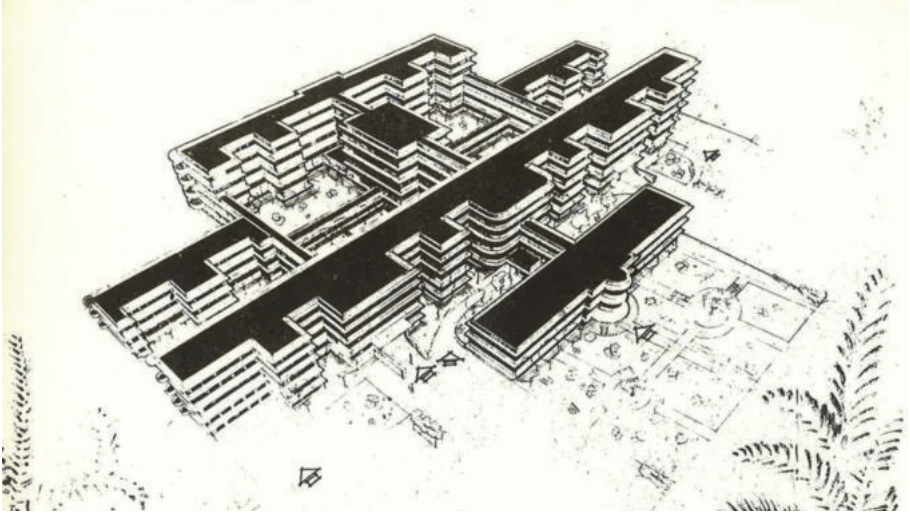
Image 3 . Perspective and picture of scale model of Van Malleghem's hospital design

Developed on his own initiative, the booklet entitled *Technique Hospitalière Tropicale* featured carefully drawn perspectives and pictures of a large scale model. These needed to portray Van Malleghem's prestigious design and convince the Ministry to charge him with the commission.

Van Malleghem (1954, planche 1, p. 11b).

Image 4 . *Plan Particulier d'Aménagement* of the neutral zone of Elisabethville

Just as the general urban survey, multiple, more specific urban planning designs of particularly strategic sites in Elisabethville were outsourced to Van Malleghem, including the refurbishment of the neutral zone into a *zone hospitalière*. As discussed below, multiple proposals were made, which would be the subject of an intense discussion between the Ministry and the local municipal authorities.

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created bad blood between the Brussels Ministry, the local administrators, and the private architect.[31]

Tensions only aggravated when the central authorities approached Van Malleghem yet again without the local government's support. Based on his earlier city-wide survey, he was charged to develop several, more specific, *Plans Particuliers d'Aménagement* for particularly important or strategic urban sites in Elisabethville. As such plans were normally designed by the provincial Public Works Services, this again undermined the impact local policymakers could have on their own city. One of these plans concerned the refurbishing of the neutral zone – where the old hospital for Africans was located – into a new 'zone hospitalière.' The architectural design of the hospital itself would then in a later stage be determined by launching a public 'adjudication-concours.'[32] Meanwhile, Van Malleghem was still awaiting which public building the colonial government would assign to him as the due payment for his urban planning survey. With the experience he was acquiring by working on the urban planning of the 'zone hospitalière,' he may have estimated that the hospital offered a rather easy yet well-paid and prestigious architectural opportunity. He decided to develop architectural plans, sections and a scale model of the future hospital on his own initiative, compiled these images into a presentable booklet entitled *Technique Hospitalière Tropicale*, and used this to pitch his proposal to the Ministry even before the architectural competition would be officially launched.

His approach worked. Not only was he becoming a welcome figure at the Ministry since his survey of Elisabethville – in an internal note, a member of the Brussels Medical Department even referred to the architect as 'le poulain de Wigny'[33] – his proposal spoke directly to the desire of Brussels policymakers to realize a grand landmark hospital that would improve the welfare of the colonized and boost the international prestige of the colony. High-ranked officials from the Ministry would later write that:[34]

> Tant pour des raisons de prestige international que de politique intérieure, un centre aussi important qu'Elisabethville se doit de posséder un hôpital, si pas luxueux, au moins remarquable, qui soit le témoignage concret de notre sollicitude envers les populations autochtones.

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31. Boonen (2019, pp. 82, 137).

32. AA/H 4570, Report of *réunion concernant l'avancement des constructions dans les centres urbains*, 1 March, 1951.

33. Given his particular position at the Ministry, it is of course possible that Van Malleghem had already received informal approval before he really started working on his plans and scale model, although there are no archival traces to confirm this. Wigny had been the Minister of Colonies from 1947 until 1950. AA/H 4471, Note from Dr. De Brauwere to *Inspecteur Général de l'Hygiène* Dr. Duren, 25 October, 1952.

34. AA/H 4471, Note by Dr. Duren, 3 November, 1952. Similar opinions were expressed by Dr. De Brauwere, Dr. Kivits and the Minister of Colonies Dequae.

In *Technique Hospitalière Tropicale*, Van Malleghem emphasized how his design fulfilled the Ministry's ambitions of prestige and welfare. While the pictures of the scale model and impressive perspective drawings portrayed the monumentality of the hospital, he extensively argued how his design would serve as a 'pièce maîtresse de toute œuvre civilisatrice:'[35]

> *La mission de l'hôpital [...] dépasse largement la raison d'être attribuable à un établissement du même genre qui serait édifié sur le territoire métropolitain. L'hôpital construit aux colonies n'est pas seulement un endroit où l'indigène peut apaiser ses souffrances physiques et retrouver la santé. C'est également le grand centre d'hygiène pour une communauté qui a besoin d'une aide efficace à son développement, et où l'indigène peut retrouver un réconfort moral aussi bien que physique. Bref, l'hôpital doit être et sera une sorte de havre où les Noirs iront retremper leur confiance en ceux qui ont la mission de promouvoir l'évolution de la population africaine.*

Depicting a hospital for Africans as a safe haven that was to reinforce the bonds between communities of colonized and colonizer, Van Malleghem clearly inscribes his design into the emerging discourse of the *Communauté belgo-congolaise*. As this discourse was especially supported amongst the members of the Ministry of Colonies, it seems the private architect consciously sought to curry favor with the Brussels policy makers. This approach certainly paid off, and with the booklet and his good reputation in the 'social field' of the Ministry of Colonies, Van Malleghem was quickly able to rally the support of the Brussels authorities for his proposal. The Minister decided to cancel the competition and directly assign the commission to the architect, who was now in charge of the city-wide urban survey, the urban ensemble of the hospital's surroundings, and the architectural design of the hospital itself.

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35. Van Malleghem (1954, p. 13).

Welfare and segregation in the zone hospitalière

With this responsibility, however, also came great challenges. To realize the hospital and the urban ensemble of the 'zone hospitalière,' he needed to navigate and balance increasingly contrasting views within the colonial government. It was indeed during the design process of the *Plan Particulier d'Aménagement* that the oppositions between the local authorities and the Brussels Ministry truly surfaced and clashed, and Van Malleghem was somewhat caught in between. The development of this *Plan* for the 'zone hospitalière' has already been minutely analyzed by Sofie Boonen in her research on the urban history of Elisabethville.[36] Nonetheless, it is impossible to answer why the city's new hospital for Africans remained a paper project without briefly returning to this urban planning scheme.

The assignment was not to design the hospital itself, but rather to refurbish the old neutral zone into a vast urban ensemble, and determine the optimal position of healthcare facilities such as the new hospital for Africans, for Europeans, and the new medical laboratories. From the end of the Second World War onwards, the Medical Department of the Brussels Ministry adopted a new and progressive hospital policy. Especially under the impetus of Dr. Duren, the head of this department and by far the most important policymaker of Belgian Congo's post-war healthcare plans, the Ministry started advocating the unification of healthcare infrastructure for Europeans and Africans into a single *Complexe Médical*. This would not only facilitate the economic use of mutual functions such as laboratories, but also had explicitly political aims, as it would help to slowly abolish racial discrimination. While this *politique de rapprochement* will be covered in more detail in the next chapter, it is nevertheless important to note that the discussions regarding the Elisabethville case were incredibly tense, and that this debate forms a prime example of how tensions regarding healthcare segregation divided the Ministry and several municipal colonial authorities. Indeed, just as in many other colonial towns, the local policymakers of Elisabethville were much more conservative. Represented by the *Comité Urbain*, they wanted the two hospitals separated and far away from each other. They feared the joint hospital 'allait engendrer de gros inconvénients: foules indigènes à proximité de l'hôpital des Blancs ; jérémiades à l'occasion des enterrements indigènes' as well as loud family visits which would all disturb the peace and recovery of European patients.[37]

As Van Malleghem developed his plans in Brussels and stood in much closer contact with the Ministry than with the local branches in Elisabethville, his proposal largely followed the view of the Ministry, and joined together both complexes in the 'zone hospitalière.' Nonetheless, in his first plans, the mutual position of the two facilities still safely reflected the overall binary structure of the city, with the hospital for Africans oriented and located on the side of the *cité*

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36. Boonen (2019, pp. 183-189); Lagae et al. (2013).
37. AA/GG 10686, *Rapport du service de l'hygiène. Situation des hôpitaux*, 22 March, 1949.
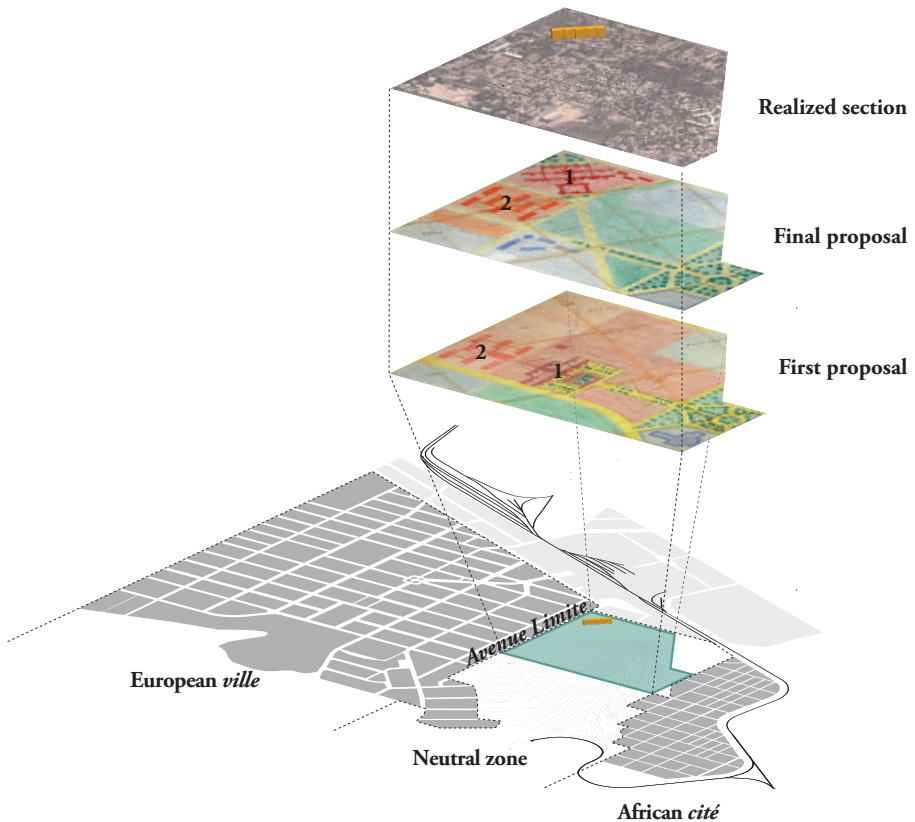
Image 5 . Proposals for the 'zone hospitalière' and final realization

In Van Malleghem's first proposal, the position of the new medical infrastructure still reflected the spatial binary structure of the city, with the new the hospital for Africans (**1**) oriented towards the African *cité* and the hospital for Europeans (**2**) located along the *Avenue Limite*, which separated the neutral zone from the European *ville*. In the final proposal, however, both facilities were located along the *Avenue Limite*, and oriented towards the European *ville*. This new positioning no longer reflected the segregated binary urban planning of the city. The changed proposal was likely the result of strategic lobbying by the *Comité Urbain* behind the scenes, who knew that even the Ministry would not accept this new positioning. In the end, the proposal was rejected, and the new hospital for Europeans was effectively relocated.

Plans dapted from schemes created by Sam Lanckriet and pubished by Sofie Boonen (2019, p. 196)

indigène, and the hospital for Europeans located in the north of the zone, close to the European *ville*. During a local research mission in September 1951, however, Van Malleghem abruptly altered his proposal, and decided to push the location of the hospital for Africans upwards. In this second proposal, both hospitals were thus equally close to the European parts of the city. Although the main argument for this move was that the old location implied costly foundations due to local composition of the soil, he was quick to reassure the members of the Ministry: the new location would not harm the building's international prestige, since it became even more visible along the busy *Avenue Limite* and 'l'expression architecturale du complexe tendra ainsi vers une plus grande monumentalité.'[38]

Behind the scenes, however, this sudden change of location may have also been the result of lobbying by the more conservative *Comité Urbain* during the architect's stay in Elisabethville. Although the final *avant-projet* still proposed adjacent hospitals for Europeans and Africans, both facilities were now bordered the European city, which flagrantly contradicted the segregated colonial urban order of Elisabethville. Most likely, the *Comité Urbain* was well aware that even the Minister would not accept this new design, forcing him to decide to cancel the idea of a joint hospital complex and remove the hospital for Europeans from the neutral zone. As the Minister of Colonies acknowledged, this decision 'rendrait impossible la réalisation d'un complexe médical complet,' as 'les établissements seraient alors implantés en sens inverse de leur orientation normale.' He did, however, shed his doubts about the official budgetary and technical reasons behind this changed proposal, subtly suggesting that 'l'avis du Comité Urbain' might have influenced the repositioning.[39] The Brussels Medical department was less discreet. Its members were furious about the way local authorities in Elisabethville ignored the central orders and implemented their own conservative agenda. In an internal note, Dr. De Brauwere, one of the advisors of Dr. Duren, the head of the department, lashed out. He called 'les E'villois de <u>féroces rétrogrades</u> et des partisans acharnés et tenaces de la discrimination raciale' who had slyly outmaneuvered the local Medical Services by invoking budgetary and technical issues as a pretext to 'faire échec au projet de «<u>groupement des installations médicales à Elisabethville.</u>»'[40]

38. AA/3DG 188, *Mémoire concernant l'implantation de l'hôpital Congolais à Elisabethville*, 14 February, 1952.

39. AA/3DG 188, Letter from *Ministre des Colonies* A. Dequae to *Gouverneur Général*, 27 February, 1952. It was also Minister Dequae who hinted at 'l'avis du Comité Urbain' as a possible explanation for Van Malleghem's 'revirement' in the new proposal.

40. Original emphasis. AA/H 4471, Note from Dr. De Brauwere to Inspecteur Général de l'Hygiène Dr. Duren, 25 October, 1952. Other important figures of the Medical Department expressed similar opinions. Dr. Kivits, for instance, wrote that the choice to separate the hospitals only testified of a 'sentiment inavoué de discrimination raciale.' AA/H 4471, *Note au sujet de l'hôpital d'Elisabethville*, by Dr. Kivits, 28 October, 1952.

The discussions had clearly reached an impasse and with no prospects for an easy resolution, both branches focused on other matters. This silent truce lasted for another two years, when the matter had simply become to urgent to ignore and the Ministry finally ceded. The *Comité Urbain* had its way, and the hospital for Europeans would not be part of the larger medical complex, while the African hospital firmly remained in the neutral zone. If these internal accusations did not change the outcome of the 'zone hospitalière,' they did reveal the sharp animosities that reigned between the officials of the Brussels Ministry, who aimed to materialize the global shift towards 'welfare colonialism' by gradually eliminating segregation in healthcare infrastructure, and most members of the local administration, who held on to persistent logics of racial segregation.

Delays and clashing interests

Van Malleghem had to carefully navigate within this climate of friction. The architect had already displayed his ability to balance these contrasting views when he procured the assignment of the hospital. The booklet *Technique Hospitalière Tropicale* included not only arguments about welfare and prestige that would have placated the Ministry, but also soothed the anxieties of the local government by displaying the last version of the 'zone hospitalière.' He described this proposal as by far the best solution 'au point de vue urbanistique, architectural, esthétique, et même au point de vue de l'organisation,' even though internal correspondence clearly revealed Van Malleghem's personal preference for his earlier versions and no official decision had been made at the time of writing.[41]

The organization and architecture of the hospital similarly aimed to balance the various, opposing opinions within the government. With the hospital's main entrance oriented towards the African parts of the city, the design materialized the aim of an international landmark hospital that expressed Belgium's allegedly philanthropic *mission civilatrice*. A grand avenue led towards the impressive, five-story high hospital, with its expressive, layered façade marked by vertical columns for circulation and horizontal *brise-soleil* and *barzas*. Yet this main façade was perhaps not the part of the hospital that was most important in reconciling the opposing government branches. Instead, it was the section for the *Evolués* that received by far the most attention in the booklet, as it not only reflected agendas of emancipation and welfare, but also tempered local concerns about the proximity of the hospital for Africans to the European *ville*. With either single or double rooms, furniture for private storage rooms and private balconies, the design offered unprecedented medical comfort to Congolese patients. At the same time, the wing was located on the northern side of the hospital, along the *Avenue Limite*. As a more layered post-war rendition of the 'politics of in/visibility' that had been deployed during the interbellum, the façade for évolués functioned as a visual and social buffer between the European city and the sections for 'Congolais non-évolués,' which were feared by the local European inhabitants as noisy and perhaps even contagious. On the ground floor, Van Malleghem located logistic services such as the kitchen and the *buanderie*. This made sense in terms of internal organization, but also conveniently added an additional layer of separation between European inhabitants passing along the *Avenue Limite*, and the Congolese patients in the hospital.

Although Van Malleghem design offered a compromise between local anxieties and central ambitions, the Congolese government was still not convinced. In their long-awaited response to the plans – the *Gouvernement Général* took over a year to react to the booklet – the local services acknowledged that the design did alleviate most fears about the inconvenience of a hospital for Congolese close to

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41. Van Malleghem (1954, p. 16).

Image 6

The wing for *Evolués* received by far the most attention in *Technique Hospitalière Tropicale.* The luxurious hospital wing played a crucial role, as it balanced the Ministry's agenda of welfare and emancipation, with local anxieties about the proximity of a hospital for Africans to the European city. By locating it along the *Avenue Limite*, as well as raising patient rooms and organizing logistic services on the ground floor, the section functioned as a social and visual buffer between the European city and the wings for Congolese 'non-évolués.'

Above: AA/3DG 192.
Below: Van Malleghem (1954, planche 26)

the European city. Now, however, it was the degree of luxury and grandeur – one of the reasons the private architect had been able to persuade the Minister – that caused concern. Especially the expenses that would come with such a grand complex, were casting doubt. According to the Congolese Medical Service's own calculations – Van Malleghem had conveniently left out a cost estimation in the booklet – the hospital would cost more than triple the original budget inscribed in the Ten-Year Plan.[42] Using the same logics of Congolese primitiveness that had also undergirded the local persistence to racial segregation, the Congolese authorities argued that the hospital design was over-scaled and inappropriate for the Congolese. Especially the choice to adopt a typology inspired by American skyscraper hospitals, with different services stacked on top of each other in multiple stories, was criticized as too luxurious and too complicated for the primitive African patients, visitors and staff in particular:[43]

> *La classe très poussée d'architecture sacrifie beaucoup au goût américain lequel est issu de nécessités différentes des nôtres et que rend satisfaisant aux États-Unis le standing évidemment beaucoup plus élevé de la population. La desserte ancillaire d'hôpitaux du type vertical et tout à fait modernes, basée sur l'emploi intensif d'ascenseurs, de monte-charges, de gaines d'évacuation et d'autres appareils n'est pas actuellement, et ne sera pas encore de longtemps possible ou aisée aux mains d'un personnel autochtone encore tout proche de sa vie primitive et cela est particulièrement vrai au Katanga.*

The Governor continued the letter by arguing that the monumentality of Van Malleghem's design was not the only way to awe and impress the city's African population and generate their recognition of the colonial government's healthcare policies. Instead, he was convinced that by downscaling the architectural grandeur and prioritizing the simplicity, comfort, and medical equipment in the complex, the government would accomplish the same effects:[44]

> *Une conception plus simple du bâtiment, admettant déjà certains perfectionnements sans doute, mais laissant la place à des procédés de communication et d'entretien plus à la portée de la main d'œuvre noire me paraît beaucoup plus sûre et de nature à nous ménager moins de déboires. Envisagé dans la perspective politique, très respectable elle aussi et digne de considération, de l'impression à donner aux visiteurs étrangers de notre sollicitude de colonisateurs et du témoignage de cette sollicitude que doivent ressentir les noirs à son spectacle, l'aspect architectural du nouvel hôpital, sans devoir être négligé, le cèdera sans aucun doute au caractère complet de son outillage et, sur ce point, comme sur celui du confort général, je suis tout à fait d'avis que rien ne doit être sacrifié.*

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42. Whereas the original budget of the Ten-Year Plan was 65 million Francs, the Medical Service in Léopoldville estimated the design would cost around 203 million Francs.

43. AA/3DG 193, Letter from *Secrétaire Général* G. Sand in name of the *Gouverneur Général* to the Minister of Colonies, 13 October, 1952.

44. Ibid.

The conclusion of the Congolese authorities was thus simple and radical: Van Malleghem should be discharged as architect of the project, and the Public Works Service should take over and develop a much less expensive design that was more adapted to the local situation. The Minister, however, quickly renounced this conclusion, accusing the General Governor of taking over a year to respond to the *avant-projet*. During this period, Van Malleghem had continued to fine-tune his plans, and stopping his contract would thus imply huge sunk costs that were completely contradictory with the General Governor's call to save expenses. The Ministry continued to defend Van Malleghem and the grandeur of his design, in spite of its cost, arguing how, 'tant pour des raisons de prestige international que pour des raisons de politique intérieure,' a landmark hospital was crucial in the colony's second-largest city:[45]

> *Je ne suis pas convaincu qu'il faille justement réaliser les importantes économies que vous préconisez sur la construction d'un ensemble médical qui touche de si près les intérêts des autochtones et qui peut si élogieusement témoigner de la sollicitude de l'Administration Belge pour ses protégés congolais. [...] L'avant-projet vous a été envoyé pour approbation il y a un an. Je pense qu'il est un peu tard pour proposer des changements aussi radicaux dans l'œuvre architecturale et pour renoncer à la collaboration d'un praticien auquel il n'est fait qu'un seul reproche : celui d'avoir présenté une réalisation de grande classe.*

After another year of discussions, the Brussels authorities and the Congolese administration finally agreed to a compromise. They decided that the architect's design had to be simplified and that its realization would be divided into several, financially manageable stages. Van Malleghem would only be in charge of the first construction phase, of which the dimensions were to be precisely determined so that the commission of the architect corresponded with the original budget of the hospital as inscribed in the Ten-Year Plan. Whereas Van Malleghem's first proposal had pushed the financial boundaries way beyond this initial budget of the Ten-Year Plan, with a monumental hospital costing a daunting 200 million Francs, his hopes of getting such a high commission now proved in vain. Van Malleghem, however, did not simply agree to this without a fight. While during the first years of the design process, the Ministry still defended Van Malleghem and his design, they were soon faced with the fact that the private architect was not only concerned about the colony's prestige or the welfare of the colonized, but that he had personal motives as well.

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45. AA/3DG 1003, Letter from *Ministre des Colonies* to *Gouverneur Général*, November, 1952.

Private versus public architects

When the architect heard he had to downscale his project and would not be in charge over the complete construction, he was furious and refused to make the changes. In his response, he continued to uphold that his design was purely driven by functionality, argued that the demanded simplifications would cost more instead of less, and accused the government of constantly altering their demands and the budget available, referring extensively to earlier reports and letters to back up his claims. Several letters went back and forth, and the argument quickly turned into an almost preposterous yes-or-no discussion, with the members of the Ministry making the opposite claim and referring to the same correspondence and reports but with a different interpretation.[46] When the Ministry finally threatened to completely discharge the private architect, Van Malleghem had no other option than to back down. Despite this outcome, valuable time had again been lost during these discussions, in what already was an incredibly urgent project. It was only by 1957 that the detailed plans were finally finished, and the public tender of the first building phase could be launched. Nevertheless, it was too late, and only a minor part of this tender could be finished before independence halted construction.

For the colonial government, the conclusion was already clear by 1953. As architect Ricquier's design for a hospital for Africans in Léopoldville had encountered very similar problems as Van Malleghem's, the private architects were to blame. Outsourcing the design of the colony's two most important hospital projects had backfired, and instead of speeding up the process by relieving the often overworked architects of the Public Works Service of some of their tasks, it had taken much longer, causing the existing hospital infrastructure to become even more overcrowded. The main issue, according to the Government, was that the private interests of these architects clashed with those of a public commission:[47]

> *Les Architectes, auteurs des projets, se sont certainement aperçus de la disproportion existant entre les programmes et les crédits. Ils auraient dû signaler cette contradiction au maître de l'ouvrage, la Colonie. Ils s'en sont bien gardés parce que leur intérêt est de traiter le plus grand volume possible de travaux.*

Yet acquiring as big of a commission as possible was likely not the only reason why Van Malleghem had designed such a grand and modern medical complex. Just as the hospital was a matter of international prestige to the colonial government, the private architect likely considered the project as a crucial stepping stone in his career, which would allow him to make a name for himself as both a hospital architect and an expert of building in the tropics. He also actively tried to develop this reputation, presenting at international conferences on tropical architecture,

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46. See several letters in AA/3DG 1003.
47. AA/3DG 1003, Note from Public Works Department to *Ministère des Colonies* on études des hôpitaux pour indigènes confiées à Mm. *Van Malleghem et Ricquier*, 29 June, 1953.

distributing his booklet *Technique Hospitalière Tropicale* and ensuring that his hospital project received enough publicity.[48] Not everyone was convinced about the architectural qualities of the design – in the contemporary journal *Ruimte*, Belgian architect Huib Hoste criticized Van Malleghem's overly symmetrical design as a rather outdated and non-functional *beaux arts* hospital for the tropics.[49] Nonetheless, it seems that his conscious branding as a hospital expert did lead to some new commissions during his later career in Belgium, including a nursing home as an expansion of the Saint-Jean Hospital in Genk.[50] The hospital for Africans in Elisabethville was really a crucial opus in Van Malleghem's career as an architect, and his aim to design a state-of-the-art, grand hospital was likely just as much driven by these considerations, as by the prospect of financial gain.[51]

Be it profit or prestige, these private agendas were still an important reason why the two flagship hospitals of the colony remained paper projects. The unfulfilled designs of both Ricquier and Van Malleghem stand in stark contrast with the large, but much less mediatized impact state architects had on colonial healthcare infrastructure, a contrast that becomes most painstakingly clear when taking a look at *Investir, c'est prospérer*. This booklet was published by the colonial government by the end of the Ten-Year Plan, and provided an extensive and celebratory overview of its allegedly grand achievements under the post-war building program. One of the chapters of course advertised the accomplishments under the domain of 'l'hygiène et les installations médicales.'[52] Although the section primarily focused on the quantitative impact of 'efficient' rural healthcare infrastructure – as will be discussed in more detail under 3/L – it also boasted pictures of the most architecturally impressive realizations. Ironically, while these 'dignified' architectural accomplishments were essential to the new colonial discourse of 'welfare colonialism' in the post-war period, the colony's two largest and most expensive hospital projects could not be photographed, simply because they existed only on paper.[53] Instead, the colonial government had to resort to other, perhaps less conspicuous or mediatized projects designed by its own state architects.

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48. At the *Housing in Tropical Climates* Conference, organized in 1952 in Lisbon, Van Malleghem presented his experiences about hospital design and housing in Elisabethville. There, he may have met with Jean Calsat, a French architect who became renowned for hospital construction in the tropics and who was co-editor of the final volume of the conference. See Calsat and Buning (1952); Lagae (2013c).
The contemporary journal *Habitat et Habitations* also covered his design, yet remained conveniently silent about the fact that construction of the hospital hadn't even started at the time of publication. From the choice of words – oddly reminiscent of *Technique Hospitalière Tropicale* – it seems plausible that it was Van Malleghem himself who had written the text.

49. See Hoste (1954).

50. See description from Heritage Flanders, https://inventaris.onroerenderfgoed.be/erfgoedobjecten/306466 [accessed: 15 June, 2020].

51. As the work of Beeckmans (2014) on French architect Ecochard suggests, private architects often had various, and clashing agendas in collaborations with colonial authorities.

52. Ministère des Colonies (1960, pp. 87-90).

53. On the 'dignified' and 'efficient,' see Introduction and Van De Maele (2019, p. 12).

Image 7

In *Investir, c'est prospérer*, the celebratory booklet listing the achievements of the Ten-Year Plan, the two largest hospital projects, both designed by private architects, were conspicuously absent. Instead, the publication depicted hospital complexes from the hand of state architects, who, although they often remained unknown, were able to realize some large hospital projects in Belgian Congo, in contrast to both private architects, whose designs remained paper projects.

Above: Ministère des Colonies (1960, p. 87, 89). Below: Original picture of *Complexe Hospitalier* in Bukavu as found in the archives, AA/H 4475.

Next to the *Sanatorium de Makala* designed in tropical modernist style by the rather prolific state architect René Schmit,[54] especially the presence of an image of the *Complexe Hospitalier* realized in Bukavu is striking. Much like in Elisabethville and Léopoldville, Jean Gilson, a Belgian private architect-urbanist, had been charged with the development of a *plan d'aménagement* for the city. He tried multiple times to get commissioned as the architect of city's new hospital, but the Provincial Governor continued to reject his offer. Instead, Jean Mouligneaux, an unknown architect from the provincial Public Works Services was charged with the design, in collaboration with the head of the provincial Medical Service.[55] The design of course also suffered delays – many of which related to tensions about the *politique de rapprochement* which had also surfaced in Elisabethville and which will be discussed in the next section. Moreover, with its eight stories and constructed on steep and rocky terrain, the building was certainly equally challenging as Van Malleghem's hospital from a technical point of view. Nevertheless, the first two building phases were already realized and in use by 1960, while only a small part of Van Malleghem's design was ever constructed.

This stark contrast raises questions about the limited impact that well-known private architects had in the colony, and the often impressive yet underexposed architectural production that anonymous or 'bread and butter' architects of the state architects were able to realize.[56] The bearing of these anonymous architects not only reveals itself in these 'dignified' architectural designs such as the *Sanatorium de Makala* or the *Complexe Hospitalier* in Bukavu, but will also resurge in 3/L, when discussing the vast network of healthcare infrastructure realized under the Ten-Year Plan. Yet the silent absence of mediatized paper projects and the images of realized hospital complexes from anonymous authors in *Investir, c'est prospérer*, also speak to an even larger issue. It was through colonial propaganda such as this publication that the colonial government successfully cemented Belgian Congo's reputation of a medical model colony, a legacy that continues to this day. In such propaganda, unfinished projects such as Van Malleghem's design were strategically omitted, although they were just as much part of the larger history of healthcare infrastructure in Belgian Congo. Resurfacing the burdensome design process of these paper projects, and the difficulties and internal tensions that caused these hospitals to remain unrealized, offers an important vantage point fully understand Belgian Congo's myth of a medical model colony.

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54. Among others, Schmit also designed the modernist last extensions of the *Hôpital de Léo-Est* and a new hospital for Europeans in Matadi. See ARNACO/GG 107 and Annex 1 in Lagae (2002).

55. See correspondence in AA/3DG 187.

56. Agarez and Mota (2015, p. 3).

Débarquant à Coquilhatville, S.M. est accueillie par M. Muller.

La population acclame le Roi pendant la traversée de la ville en voiture.

Image 8 . *Le Roi à Coquilhatville*

King Baudouins visit across multiple colonial towns, including Coquilhatville, was widely mediatized. It served to celebrate Belgian colonialism and advertise the new colonial discourse of the *communauté belgo-congolaise.*

Bolamba, *La Voix du Congolais*, July, 1955, p. 554.

3/MEDIUM

Challenged binaries in Coquilhatville's dual healthcare landscape

On May 25, 1955, a huge number of people had impatiently gathered at the entrance of the airport of Coquilhatville. When they finally heard the distant sound of propellers roaring through the sky, the numerous spectators, of which the lion's share Congolese, flocked to the best spots to watch the royal airplane touch down on the hot tarmac. The visit of King Baudouin was highly anticipated, and when he passed by the crowd in his convertible, the gathered spectators swarmed and followed the waving young monarch and his retinue along the avenue from the airport to the city center. The road was jam-packed, with long 'rangs serrés des hommes,' chanting 'Vive le Roi' and cheering on *Mwana Kitoko* – or 'Pretty Boy,' as the Congolese population called him in the Lingala-speaking parts of the colony.[57] Once arrived in Coquilhatville, the King faced a heavy program, as he rushed from military *défilés* along the city's main boulevard, to traditional dances in the football stadium, to the town's various African neighborhoods, and finally to the inescapable 'garden-party' to meet and greet with local dignitaries and pay tribute to army veterans.[58] One of these saluted and spoke with the King, explaining that he had become a medical assistant at Coquilhatville's *Hôpital des Noirs* after the war. Their dialogue was undoubtedly staged, with the veteran

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57. Bolamba, *La Voix du Congolais*, July, 1955, p. 553. Colonial propaganda later claimed the Congolese were chanting *Bwana Kitoko* – beautiful sir – which in hindsight seems rather absurd, considering that 'Bwana' is a Swahili word. Raspoet (2005).

58. Bolamba, *La Voix du Congolais*, July, 1955, p. 556.

expressing the appropriate yet mandatory words of praise about the Belgian 'medical model colony.' Nevertheless, he also raised his concerns regarding the town's hospital infrastructure, noting that the city's booming number of African inhabitants 'affluent à l'hôpital qui devient trop petit pour les recevoir tous.'[59]

King Baudouin's passage through Coquilhatville was part of a larger, month-long and widely mediatized trip across Belgian Congo. Of all the Belgian rulers the colony had known, Baudouin was certainly the most well-known and popular amongst the Congolese population, and this was undoubtedly because of this extensive visit. In contrast to his predecessors, who had mainly focused on the colony's political and economic strongholds, Baudouin passed through numerous other colonial towns, where he also paid a visit to the African *cités*. These visits were often given particular acclaim through grand ceremonies during which the King took time to greet and speak to the Congolese spectators, and deliver reconciling messages about the colonial government's aims of Congolese welfare and prosperity. When passing through the colonial capital, for instance, he emphasized that Belgian colonialism 'ne se justifie que par l'accroissement du bien-être de la population autochtone' and that improving the socio-economic well-being of the Congolese was one of the 'impératifs que nous impose notre souveraineté.'[60] That parts of Mwana Kitoko's speech had been in Lingala – albeit in a rather thick French accent – boosted his popularity amongst the Congolese crowds even more. A week later, in Coquilhatville, the King's passage through the town's African neighborhoods seems to have incited the same enthusiasm. When addressing the monarch, the head of the *Centre Extra-Coutumier* did not shy away from superlatives: he not only expressed his 'reconnaissance pour les bienfaits innombrables que nous ont apportés les Belges, nos civilisateurs,' but also paid tribute to 'le Souverain Génial, Sa Majesté Léopold II, Fondateur de l'Empire Congolais,' for commencing 'cette grande œuvre humanitaire et civilisatrice.'[61]

That precisely in the capital of the Equator province, the epicenter of former red rubber atrocities, the Congolese *Chef du Centre* would have praised King Leopold on his own initiative, seems far-fetched.[62] Rather, his speech had likely been dictated or censored by the colonial authorities, just as *La Voix du Congolais*, the periodical that was reporting on the royal visit and whose target audience was the rising number of Congolese évolués, was paternalistically supervised

59. Bolamba, *La Voix du Congolais*, July, 1955, p. 557.

60. Speech held at the Stade Baudouin in Léopoldville, 17 May 1955; see Neels (1996, pp. 149-151).

61. Bolamba, *La Voix du Congolais*, July, 1955, pp. 554-555.

62. As will be discussed in 3/L, the Equator region still suffered from the scars of this brutal period, and particularly its low natality figures have been linked to the red rubber atrocities.

by the colonial *Service de l'Information*.[63] Such censorship and triumphant rendering of the King's passage through Coquilhatville immediately lays bare the real reason behind the royal visit to the colony. As a 'perfectly orchestrated feel-good-show,' it functioned above all as a colonial propaganda stunt.[64] Through media coverage – ranging from standard articles and photo-albums, to André Cauvin's famous feature film 'Bwana Kitoko'[65] – the trip served as a sounding board to celebrate Belgian colonialism, emphasize the contrast of Congo's 'Pax Belgica' with other, more turbulent African colonies, and trumpet its new, more humanitarian post-war policy discourse.[66] This discourse had been fueled by the growing international critique on colonialism, and just like France and Great-Britain had done through the notions of the Commonwealth or the *Communauté française,* Belgium responded to these critiques by redefining its colonial policies and promoting a 'harmoniously racially mixed' colonial society – or *Communauté belgo-congolaise*.[67]

The notion of a *Communauté belgo-congolaise* was undoubtedly a child of its time and of the more general shift in colonial policymaking towards 'welfare colonialism,' which combined motives of political control, economic extraction and international legitimization with genuine ambitions to improve the living conditions of the colonized. Similarly, the idea behind the *Communauté* ambivalently combined ideals of racial and political equality with European anxieties for African emancipation. While King Baudouin, for instance, publicly called for improved 'relations humaines entre les blancs et les noirs,' he also rejected the possibility of independence by promoting 'la pérennité d'une véritable communauté belgo-congolaise.'[68] Next to the King, Léon Pétillon, Governor-General of Belgian Congo from 1952 until 1958, was the other main advocate of the new discourse. He strived for a 'union mutuellement profitable between colonized and colonizers,' but also opposed to the possibility of decolonization, delaying African political emancipation and continuously stressing the 'droits et des devoirs réciproques,' of both populations.[69] It was in this reciprocity that the *Communauté* still implied a racial hierarchy, with Europeans having a moral duty to civilize and Africans reduced to pupils in need of tutelage. Moreover, by rebranding a still hierarchic colonial society as a unified and harmonious

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63. The journalist who reported on the trip was also the periodical's chief editor, Antoine-Roger Bolamba, who would play a major role in the decolonization process, but was, perhaps more importantly, one of the main Congolese poets writing in French in the late-colonial period. As editor of *La Voix du Congolais*, however, he was forced to follow 'de communiqués qu'on [the authorities] lui a remis,' and periodical was firmly 'sous le contrôle direct du gouvernement.' See Halen (2009, p. 2); Kadima-Nzuji (2000, pp. 47-81).

64. Castryck (2009, p. 271).

65. Cauvin, Absil, and Coolsaet (1955).

66. As the relatively peaceful period between 1945 and 1957 has been called. See e.g. Vanderstraeten (1992).

67. Lauro (2016, p. 64).

68. Neels (1996, pp. 149-151).

69. Stenmans and Reyntjens (1993, pp. 35, 42). Political rights for Africans and a general voting system would only be installed in 1957, when the first public elections in Belgian Congo took place.

Communauté belgo-congolaise, the colonial authorities preemptively undermined critique on racial inequalities, either from foreign powers or from the increasingly politically active group of évolués in Congo. As such, while this shift in colonial policymaking was genuinely aimed at improving the socio-economic and political status of the Congolese population, it also aimed to paternalistically safeguard the 'Pax Belgica' and the 'gradual and controlled political process' in the colony.[70] Moreover, as a progressive ideal, the *Communauté belgo-congolaise* was far from undisputed amongst Belgian (often local) colonial policymakers, and while some such as Pétillon were ardent enthusiasts, many of them considered it a rash policy due to the still "primitive" nature of the Congolese. As such, despite repeated public promotion by figures such as King Baudouin or the Governor General, a 'manque d'adhésion réelle des Belges à la doctrine' hampered the implementation of the new discourse on the ground.[71]

This **medium** scale discusses how this mutual rise of ideals of racial equality and anxieties for African emancipation translated into changing colonial healthcare policies, by zooming in on the contested reality of segregation in Coquilhatville's hospital infrastructure. In the first section, I trace how the planning and delayed construction of a second hospital for Africans related to the so-called *politique de rapprochement*, a new post-war medical policy approach that reflected much of the basic ideals behind the *Communauté belgo-congolaise*. Whereas the *Service Médical* had been an important conservative force during the interbellum, (ab) using healthcare arguments to support racial segregation on both the urban scale and on the level of the hospital, it was now in the vanguard of progressive policy reform. Formulated only a year after the end of the Second World War, the *Politique de rapprochement* aimed to put a halt to the strict segregation of healthcare infrastructure for Europeans and Africans, by juxtaposing both in a unified *Complexe Médical* with shared logistic facilities and dormitories no longer subdivided by race but by social standing.

However, perhaps even more so than the *Communauté belgo-congolaise*, the *Politique de rapprochement* was a highly progressive policy for its time and place, spreading discord amongst central and local policymakers, as already briefly mentioned in the previous chapter. In Coquilhatville in particular, the local Provincial Governor at first glance seemed to have been an avid proponent of the *politique*, referring to the abolishment of racial discrimination when applying for funding for a new *Hôpital des Congolais* to the central authorities. A closer examination of its urban location and design, however, reveals how it was an incredibly watered-down version of the unified *Complexe Médical*, mainly aimed at removing the old, dilapidated, and ill-placed old hospital from the European *ville*. This suggests that the governor's support of the *politique de rapprochement*

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70. Vanthemsche (2012, p. 84).
71. Stenmans and Reyntjens (1993, p. 55).

was perhaps just as much, or even more, a strategic move in search of financial support, as it was a genuine ambition. Despite the fact that similar storylines occurred in many other towns across Belgian Congo, the history of the *Politique de rapprochement* and its unfulfilled promises remains remarkable. It not only shows the colonial administration was becoming increasingly divided when it came to racial segregation, but it also confirms on a more general note that a binary framework fails to capture some of the complexities that characterized the colonial administration and colonial urban policymaking.

Despite the unfulfilled promises of the progressive *Politique de rapprochement*, racial segregation in hospital infrastructure was still being contested in post-war Coquilhatville. Instead of a government initiative, however, racial hierarchies were being questioned and renegotiated by various groups of 'middle figures'[72] of both Congolese and foreign descent. Access to hospital infrastructure – in particular to Coquilhatville's prestigious *Clinique Reine Elisabeth*, which was officially off-limits for non-Europeans – was central to these negotiations. Through various methods – requests, complaints, even diplomatic pressure – these groups appealed to European government officials for social recognition, and pressed for distinguished rights and preferential healthcare treatment. 'Nervous' to offend a growing, non-European, and sometimes politically and economically frustrated upper class, colonial authorities tried to meet their demands.[73] They refined and redefined categorizations of various groups of urban dwellers, adding new social and racial stratums to an increasingly complex colonial hierarchy. As a result, however, the same local policymakers that had been reluctant to fully implement the *Politique de rapprochement*, now faced an ugly truth. With only a *Clinique* for Europeans, and a *Hôpital des Noirs* for everyone else, local officials were stuck with Coquilhatville's binary hospital infrastructure, which made it incredibly difficult to translate this new, multi-layered colonial hierarchy into a fitting spatial configuration of healthcare. Yet although the town's two hospitals remained strictly divided and healthcare remained violent in its stark difference of comfort and healthcare services, it were these blurring lines between categories that seemed to have allowed certain inhabitants to nevertheless gain access to healthcare services that had been off-limits to them before. As Coquilhatville's history lays bare, just as colonial taxonomies of race were much more complex than simplistic oppositions between colonizer and colonized, so was racial segregation in colonial hospital infrastructure.[74]

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72. Hunt (1999, p. 2). See also 2/S.

73. Hunt (2016).

74. For this second section, I am particularly indebted to the work of colleague Kristien Geenen (2019), who has analyzed this increasingly complex classification in Coquilhatville in greater detail. Here, I built on her work, connecting this complex classification to the post-war *politique de rapprochement*.

The unfulfilled promise of the Politique de Rapprochement

With eight stories high, offering a splendid view over the hilly landscape of Lake Kivu, and its play of concrete vertical structures and *brise-soleil*, Bukavu's *Complexe Médical* – already briefly discussed in the previous chapter – was undoubtedly one of the most noticeable achievements of Belgian Congo's local *Service des Travaux Publics*. Yet the hospital not only stands out for its architectural and technical qualities, it was also an exceptional materialization of the *Politique de rapprochement*. The complex was subdivided into two main wings destined for inpatients, connected by a central core that housed the shared entrance, logistic services and joint medical facilities such as the morgue, surgical suites, and even the maternity. Access to both wings was no longer based on skin color, but rather on 'standing de vie.' Of course, this was to some extent a semantic ruse that euphemistically cloaked the racial hierarchies that still dominated colonial society in the late 1950s. Not only were very few Congolese considered to have a 'standing de vie élevé,' Europeans also by definition never belonged the social stratum of 'malades de standing de vie peu élevée.' As such, even in Belgian Congo's most progressive hospital design, accessibility remained defined by race.[75] Nevertheless, Bukavu's *Complexe Médical* marked an important and extraordinary milestone in the otherwise painstakingly slow process of desegregation in Belgian Congo.

As a prime example of the *politique de rapprochement*, Bukavu's new hospital serves here as a brief yet interesting detour to unpack the economic and ideological ambitions behind this new medical policy. In 1946, a Commission comprised of the most prominent colonial doctors was assembled to outline how to respond to the healthcare crisis the second World War had caused in Belgian Congo. As will be explained more thoroughly in the next chapter, this assembly would prove pivotal in the development of the Ten-Year Plan. While the Commission mainly focused on rural healthcare – as it was in Congo's hinterland that the war had had its most ravaging fallout – it also formulated a progressive proposal regarding urban hospital infrastructure:[76]

> *Que les installations hospitalières pour Européens et celles destinées aux indigènes soient rapprochées les unes des autres dans la mesure compatible avec les règles de l'hygiène, ce rapprochement ayant pour but de permettre d'utiliser en commune des installations techniques qui, actuellement, sont dédoublées.*

It is remarkable that this proposal came from a Commission of high-ranking members of the colonial Medical Service. During the interbellum, this administrative branch had been an explicit proponent of racial segregation,

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75. If access for patients was cloaked with terminology, the plans of the hospital were much more explicit regarding the staff, for instance clearly indicating separate refectories for 'infirmiers Européens' and 'indigènes.' AA/3DG 1086, Plans of *Complexe Hospitalier de Bukavu, première tranche,* August 10, 1955.

76. AA/H 4387, *Réorganisation et Extension des Service Médicaux: Rapport sur les Travaux de la Commission des Médecins*, August – October, 1946.
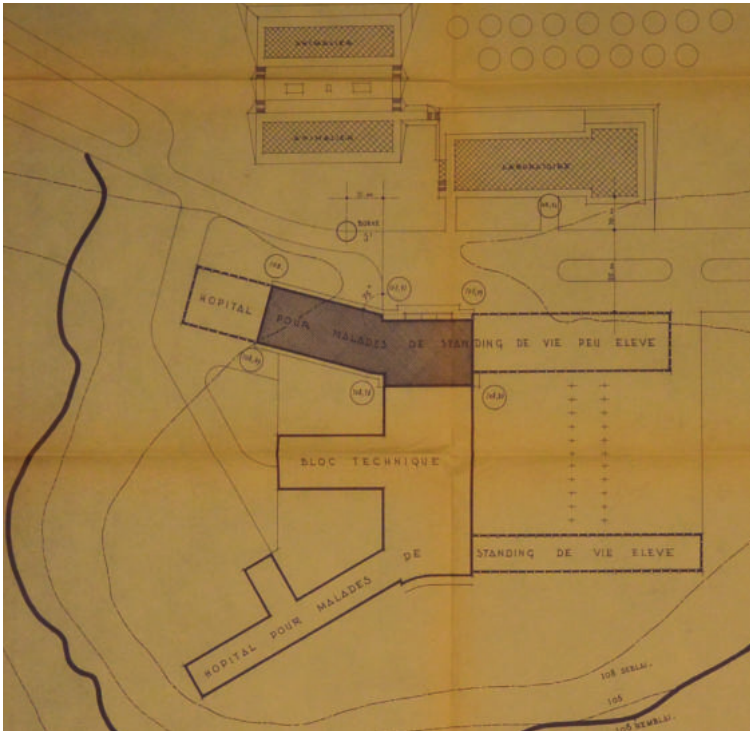
Image 9. *Complexe hospitalier*, Bukavu

The unified medical complex in Bukavu, of which construction started in 1959, was the paragon of the progressive post-war *politique de rapprochement.* It joined a wing for Europeans and *évolués* with one for Africans of 'standing de vie peu élevé.' Such terminology was undeniably demeaning, but nevertheless marked an important semantic milestole. Access to the hospital was no longer officially based on racial criteria, but on 'cultural development,' which of course, was still very paternalistically defined.

AA/3DG 1086.

pathologizing the African body as an argument for segregationist urban planning measures. Now, however, the Department was led by the more progressive Dr. Duren, who had already experienced firsthand as head of the local *Service d'Hygiène Publique* in Léopoldville how the *cordon sanitaire* in fact failed to improve public health. After his appointment as *Inspecteur Général de l'Hygiène* – the official title of the head of the Brussels Medical Department – Dr. Duren steered Belgian Congo's medical policies onto a new course. He not only advocated a much more dense rural network of healthcare infrastructure, as discussed in the next chapter, but also explicitly stressed the political role healthcare services played within the post-war colonial context. Regarding urban hospital infrastructure, he emphasized that although the *politique de rapprochement* was necessary for economic reasons of efficiency, 'le groupement des 2 hôpitaux s'indique également pour des raisons politiques; il ne peut être question de faire une politique basée sur la couleur de la peau.'[77] Many other members of the medical service quickly backed up his new policy approach. Similar to Dr. Duren, they pointed out that in contrast to the interwar views, there was in fact no scientifically sound medical reason to separate or differentiate Africans from Europeans, and that healthcare infrastructure had to spatially translate these new insights:[78]

> La cloison étanche qui existait autrefois entre la «médecine blanche» et la «médecine noire» est appelée à disparaitre. Une pneumonie, un ulcère gastrique perforé, une fracture compliquée évoluent en effet avec la même symptomatologie et nécessitent le même traitement quel que soit la couleur de la peau du malade. La conception architecturale de nos futurs hôpitaux devra s'inspirer de la nécessité de rapprocher le bloc européen du bloc indigène, séparés l'un de l'autre par des installations communes: laboratoires, salle d'opérations, radiologie, etc…

Widely supported by various high-ranking colonial doctors, these new healthcare recommendations quickly led to a *dépêche ministérielle* that translated the *politique de rapprochement* into an official policy guideline. It clearly outlined how future urban medical complexes had to unify the hospital for 'indigènes,' a 'clinique' destined for 'culturally developed' patients, and the several shared medical services:[79]

> Les hôpitaux nouveaux ne seront plus composés de deux complexes totalement différents et souvent séparés par une longue distance, dont l'un portant l'appellation d'hôpital pour indigènes et l'autre d'hôpital pour européens. Ces deux complexes ne formeront plus qu'une seule formation hospitalière comprenant 3 parties : un hôpital général pour malades indigènes peu évolués, une clinique pour malades d'une culture ou d'un standing de vie élevés, et une série d'installations communes à ces deux parties, comme par exemple, les installations chirurgicales et radiologiques, le magasin, la pharmacie,

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77. Dr. Duren during his visit to Elisabethville in 1951, quoted in Lagae et al. (2013, p. 259).

78. As Dr. Daco, *médecin provincial* of Katanga and one of the leading voices in the Medical Service wrote in preparation of the Commission. AA/PD 1534, *Etude de Dr. Daco, Médecin Provincial*, n.d.

79. AA/H 4474, Letter from Minister of Colonies Dequae to *Gouverneur Général*, 29 March 1952, in which the *dépêche* of 26 October, 1950 was quoted. The original *dépêche* could not be located in the archives.

> *le laboratoire clinique, les sources d'énergie ou de vapeur, les appareils de désinfection, le bureau administratif, etc.*

Likely under the impetus of Dr. Duren, the official *dépêche* also explicitly stressed the ideological aims of gradually eliminating racial segregation: [80]

> *Les hôpitaux anciens dits 'd'Européens», porteront une autre dénomination, par exemple, celle de clinique ou tout autre appellation excluant l'idée de discrimination raciale. Les malades de couleur y seront admis au même titre que les européens chaque fois que leur degré de culture ou leur standing de vie le justifieront.*

Of course, this remained a proposal that was still part and parcel to the Belgium's paternalistic policy approach. At the time the *dépêche* was launched in 1950, it was very much unclear which Congolese could be considered to have a 'standing de vie élevé,' and how this would be determined. Two years before, the *carte de mérite civique* had been introduced, but it was only with the *carte d'immatriculation*, introduced in 1952, that Congolese would be recognized as equal by law to Europeans. This certificate, however, still hinged on Western conceptualizations of 'cultural development,' received a lot of scepsis of local officials, and eventually proved extremely hard to get by – only 227 Congolese held the *carte* by 1957. The process of obtaining it, moreover, was incredibly humiliating and pervasive: 'Applicants to the immatriculation status had to submit to a battery of intrusive investigations of their homes, had to secure recommendations from employers, friends, neighbors, and acquaintances, and had to sit through condescending if not downright sardonic interviews.'[81]

Nevertheless, the new *politique de rapprochement* was still incredibly progressive for its time, and stirred controversy within the colonial administration. As already became clear in the previous chapter, the *dépêche* met with widespread resistance amongst local officials. They pointed out that accepting a 'personne indigène' in European medical infrastructure would automatically lead to the disturbing and unsanitary presence 'de tout un clan auquel elle appartient, avec un va et vient, un tapage, un désordre, une malpropreté, des odeurs.'[82] Echoing views of historical linear convergence imbricated within the post-war 'development paradigm,' the local government argued that this was still even the case for the most 'evolved' individuals amongst the Congolese population, who were still centuries behind their European counterparts:[83]

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80. Ibid.

81. Gondola (2016, p. 209).

82. As the *Gouverneur Général* defended the reluctance of local policymakers to implement the new *politique*. AA/H 4474, Letter from *Gouverneur Général* to *Ministre des Colonies*, 24 April, 1952.

83. Ibid.

Il ne faut pas que […] nous perdions de vue certains inconvénients qu'entraînera sans aucun doute le voisinage réciproque de deux catégories de personnes que séparent et sépareront encore longtemps l'intervalle de siècles de traditions culturelles, chez les uns, et de rusticité barbare, chez les autres. […] Chez les meilleurs d'entre eux subsiste encore une infirmité du mode de vie qui ne connaît pas à cette date de remède, c'est l'inexistence de la cellule familiale, l'absence des rapports réciproques normaux entre le père, la mère et les enfants tels que notre race les connaissait déjà dans l'antiquité.

Despite these local objections, the Brussels Ministry still imposed the *politique de rapprochement* and denounced 'l'argument racial,' claiming that 'les dispositions que nous avons à prendre doivent précisément le faire disparaître en rapprochant les uns des autres et non pas en les éloignant.'[84] Nevertheless, local policymakers continued to be opposed to the new policy, hampering its implementation across various colonial towns where the *politique* was planned. This was particularly the case in Elisabethville, where the policy had been completely undermined by the lobbying of the municipal *Comité Urbain*, as explained in the previous chapter, but also in urban centers such as Kolwezi and Jadotville.

In other cities, opposition was less explicit, with local officials implementing watered-down versions of the *politique de rapprochement*. While this occurred in urban centers such as Luluabourg and Astrida – one of the main towns of the protectorate of Ruanda – Coquilhatville forms a particularly insightful case. Throughout the interbellum, the town's medical infrastructure had been strictly segregated. Whereas *Clinique Reine Elisabeth* offered 'scandalously' luxurious healthcare services to European inhabitants, the hospital for Africans – named the *Hôpital Léopold II* and positioned about a kilometer away – was already dilapidating by the end of the second World War.[85] Still, Coquilhatville's hospital infrastructure did not perfectly adhere to the binary urban planning of the interwar 'sanitation syndrome.' Similar to the hospital for Africans in Léopoldville, the *Hôpital Léopold II* was positioned on the 'wrong' side of the neutral zone, which had only been realized after construction of the hospital had started in 1920. Its presence close to the European *ville* caused commotion throughout the interbellum, with neighbors complaining about African patients strolling around town in their hospital outfits, or about the noise psychiatric patients allegedly made during the night.[86] Yet it was only by the beginning of the 1950s that local officials openly started calling to fix the issue. Following the *politique*, they proposed to construct a new hospital closer to the *Clinique* for Europeans, which would be separated from the future hospital by communal facilities such as the medical laboratory. There was, however, no immediate funding available, since a new *Hôpital des Congolais* had not been inscribed in the Ten-Year Plan. In the

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84. AA/H 4474, Letter from Minister of Colonies Deqaue to *Gouverneur Général*, 29 March 1952.

85. On the hospital for Europeans or the 'scandale de Coquilhatville,' see 2/A.

86. See AA/GG 19395, Letter from *Médecin provincial* Schwers to *médecin-directeur* of *Hôpital Léopold II*, 30 January, 1935; AA/GG 19395, Letter from *agent territorial* to *médecin-directeur* of *Hôpital Léopold II*, 29 December 1945.
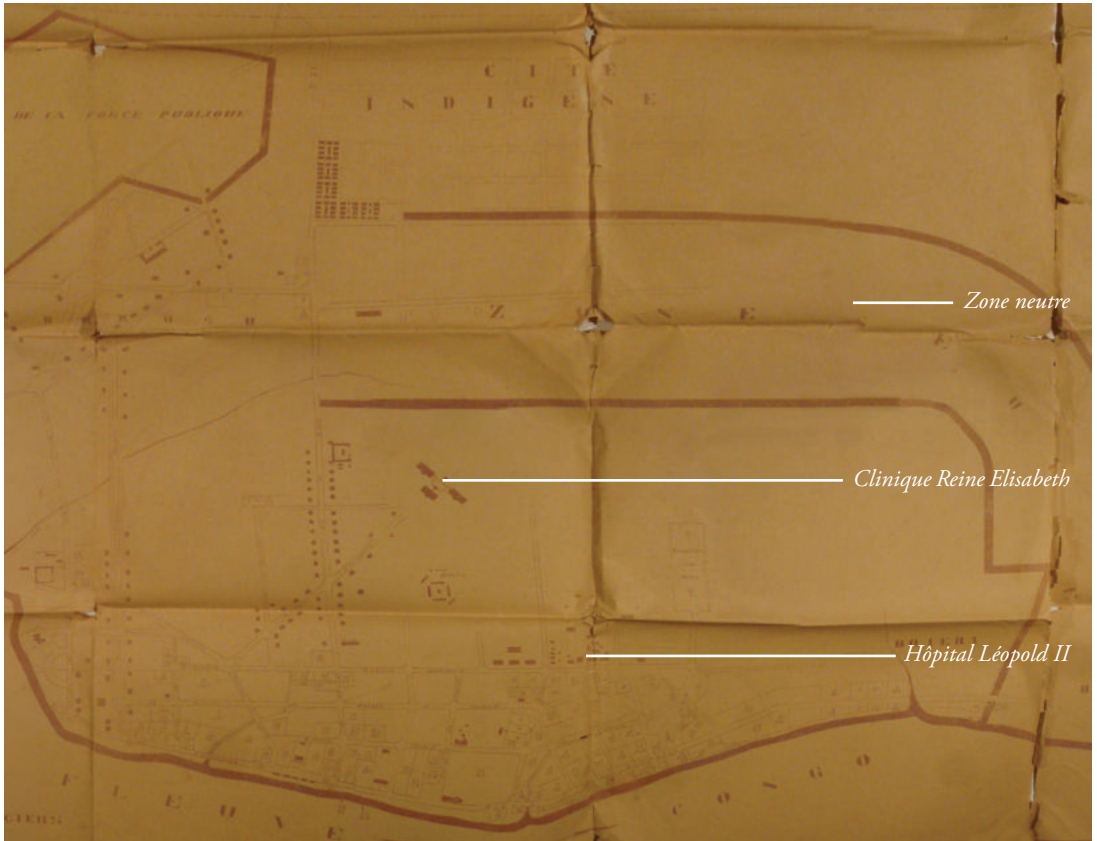
Image 10 . Hospital infrastructure of Coquilhatville during the interbellum

The *Hôpital Léopold II* was, similar to the hospital in Léopoldville, an African hospital 'pas-à-sa-place.' It had been constructed in 1920, before the policy of the neutral zone was implemented. Its close proximity to the European *ville* caused numerous complaints, and may have been one of the reasons why local officials were supporting its relocation through the *politique de rapprochement* during the post-war period.

ca. 1930, AA/GG 12836.

end, the *Commissionaire Provincial* and the *médecin provincial* deemed it best to ignore the *politique de rapprochement*, and simply maintain and renovate 'les installations existantes,' a proposal that was at the time reluctantly approved by the central authorities in Léopoldville.[87]

Two years later, however, the provincial government of Coquilhatville again filed for funding to the central government, now proposing to construct a new hospital next to the existing *Clinique*, rather than restore the old and dilapidating *Hôpital Léopold II*. By then, a change of personnel had occurred, and the new *Gouverneur Provincial*, Luc Breuls de Tiecken, explicitly denounceed racial discrimination in his funding application:[88]

> *Je suis d'avis que, pour concrétiser la suppression de la discrimination raciale, il importe dès à présent de prévoir un établissement unique pour les deux races. Il serait divisé en deux formations : la formation « A » (actuel hôpital des Européens) et la formation « B » (futur hôpital des Congolais) soudées entre elles par le laboratoire et les services communs à l'une et l'autre.*

At first glance, the argumentation of Breuls de Tiecken seems progressive and stands in stark contrast with the widespread local opposition against the *politique de rapprochement*. This might have been the case, but it is also possible that his reference to racial discrimination was perhaps more of a strategic move to obtain funding at a time when tensions regarding the subject were at their peak and the Brussels Ministry was putting pressure on the *Gouvernement Général* to adhere more closely to the *politique de rapprochement*. Breuls de Tiecken based his application on the report of an ad-hoc *Commission Consultative d'Urbanistes*, comprised of local architect Frétin, and of architects and urban planners Heymans and Thomas, who were both attached to the central Public Works Service of Léopoldville.[89] After inspection of the old *Hôpital Léopold II* and its European surroundings, they concluded the need to 'faire disparaître du centre de la ville le chancre que représente cet hôpital.'[90] The Commission also proposed a new location for the future hospital, which they now situated across the neutral zone next to the *cité indigène*. While Breuls de Tiecken had portrayed this proposal as a paragon of the new *politique de rapprochement*, the report of the commission did not at all view this location as a way to abolish medical segregation, but rather as an urban planning measure that 'éloignera définitivement de nous le danger et

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87. The *Commissionaire provincial* was the second in line after the *Gouverneur Provincial*, who was on leave at the time.
AA/GG 12935, *Note technique* by architect R. Frétin, 11 January, 1952.

88. AA/GG 12935, Letter from *Gouverneur Provincial* Breuls de Tiecken to *Gouverneur Général*, 25 January, 1952. For a list of Governors of the Equateur province, see Lufungula Lewono (1986, p. 155)(ªC.

89. While little is known about architect Jean-Marie Thomas (see annex I, Lagae (2002)), the career of urbanist Maurice Heymans, and especially his urban planning proposal for Léopoldville and his disagreement with Georges Ricquier, have been more widely studied: see annex I in Lagae (2002); Beeckmans (2013b); Beeckmans and Lagae (2015, p. 210).

90. AA/GG 12935, *Note technique* by architect R. Frétin, 11 January, 1952.

la menace' posed by the old hospital for Africans.[91] A closer comparison of the location of both the old *Hôpital Léopold II* and the future *Hôpital des Congolais*, of which construction only started in 1959, indeed reveals that the new hospital barely offered an improvement regarding healthcare segregation, and instead even reinforced the city's binary urban planning. Not only is the walking distance to the *Clinique Reine Elisabeth* in fact exactly the same for both hospitals, the *Clinique* and the new *Hôpital des Congolais* would not at all function as a unified *Complexe Médical*. Their only shared facility was a medical laboratory, which was designed as a distinct entity, and both hospitals were provided with separate operation rooms and logistic services such as a laundry, kitchen, morgue and an expensive radiology unit.

Coquilhatville was one of the few colonial towns where the local government officials seemed to support the post-war *politique de rapprochement* the central authorities were so avidly advocating. Whereas provincial governments in other cities had openly condemned the unrest and unsanitary dangers the proximity of African patients would allegedly cause to Europeans, Provincial Governor Breuls de Tiecken had explicitly pointed to the role of hospital infrastructure in curbing racial segregation. Nevertheless, technical documents behind his funding application suggest that racial discrimination was perhaps not the main concern. In the end, the urban planning and design of the new *Hôpital des Congolais* turned out an extremely watered-down version of the unified *Complexe Médical*, and adhered much more to the principles of the interbellum's 'sanitation syndrome' than to the progressive ambitions of the post-war *politique de rapprochement*.

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91. Ibid.

Hôpital à supprimer

Clinique Reine Elisabeth

Terrain reserved for future hospital

Image 11 . Urban planning proposal of the *Commission Consultative d'Urbanistes*

While the Commission mainly focused on the implementation of a monumental axe that gave the *Clinique Reine Elisabeth,* Coquilhatville's 'joyau de la ville,' even more prominence within the town's cityscape, it also proposed to relocate the old African hospital. Similar to the monumental axe, the underlying motive was one of urban embellishment, rather than attenuating healthcare segregation.

AA/Cartothèque 373/3461.
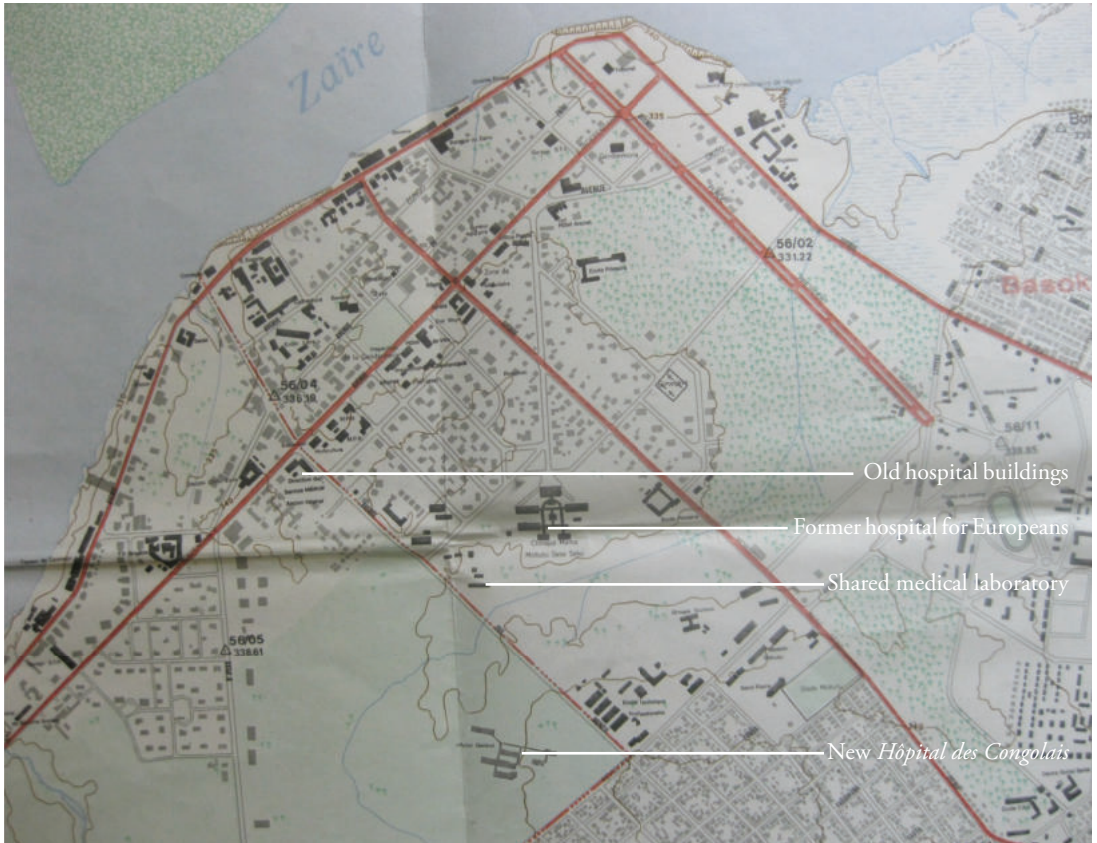
Image 12 . Coquilhatville's watered-down execution of the *politique de rapprochement*

Despite the fact that the Provincial Governor had portrayed the new location as part of a larger, unified *Complexe Médical*, the reality was rather different: distances between the hospital infrastructure for Europeans and Africans were great, and both hospitals barely shared any communal medical services.

1971, *Ville de Mbandaka, Institut Géographique du Zaïre.*

Local complications of colonial hierarchies

Image 13 . Birth register of _Clinique Reine Elisabeth_, 1952-1962

The courtesy of the personnel of the maternity at the former _Clinique Reine Elisabeth_, this register is a rare archival source that dates back to the colonial period. While it offers a window into how healthcare and segregation shifted during the transitional period of decolonization, it is particularly remarkable for the presence of the names of two Congolese women who already gave birth at the European hospital before independence.

Ill-inventoried, scattered, and often in decay, archives dating back to the colonial period are anything but easy to consult in current-day Congo. With the dire economic challenges that many Congolese face from day to day, safeguarding the integrity of half a century-old documents for the sake of history is the least of their concerns, and paper archives also offer a cheap material resource for the people who have access to it, be it as wrapping foil, firestarter, or recycled parchment. This makes the birth register covering the years of 1952 until 1962 neatly stored at the former *Clinique Reine Elisabeth* all the more unique. Even though mold and vermin corroded the running header that marks the different columns of the book – name of the patient, date of birth, weight of the newborn, etc. – the register is still in relatively good shape and legible. Cutting across the Congo's independence, it documents how medical care in the medical complex shifted during this transition period from an exclusive maternity with an average of only four births per month, to the facility where all of Coquilhatville's upper-class Congolese hoped to give birth, as it still bore the lingering prestige of its past as a European *Clinique*. Following Ann Lauro Stoler's discussion of how archives are 'documents with itineraries of their own,' often marked by 'contrapuntal' and 'colonial incisions,' the rugged cover of the register is perhaps even more insightful of the transitional 'micro-history' of Coquilhatville's medical decolonization.[92] With the *belge* of 'Congo belge' tellingly scratched off, the book bears witness to how former colonial subjects rejected Belgian rule by making formal *anti*-'colonial incisions' onto a colonial hospital archive that is, somewhat ironically, now literally patched together with medical band-aids. Yet although easy to overread, the inconspicuous presence of two Congolese names amongst the many European women who gave birth at the *Clinique* before independence, is undoubtedly the register's most remarkable feature. It is of course no longer possible to trace how Louise Bombo and Marthe Elonge had gained access to the hospital for Europeans, yet the fact that there was no mention of any husband's name, which was generally the case for the European entries, provides some clues: perhaps they had been the 'ménagères' of European inhabitants who wanted optimal care for their future children, yet preferred to remain anonymous, as 'interracial' (sexual) relationships were still a major taboo at the time.[93]

Even if it will remain unknown how both women ended up in the *Clinique*, their access suggests that even though the *politique de rapprochement* remained an unfulfilled promise in Coquilhatville, the town's strictly segregated healthcare infrastructure nevertheless came under increasing pressure. The *métis* culture of the Equateur region Louise Bombo and Marthe Elonge may have been part of was not the only demographic category that fell outside rigid colonial binary classifications in the town. Situated along the Congo River in between

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92. Stoler (2009, pp. 1-2, 7)

93. On 'ménagères' and *métis* culture, see Hunt (1999); Jeurissen (2003); Lauro (2005). On the current-day societal difficulties Belgian Congo's *métis* continue to experience in Belgium, see e.g. Hennes (2014), in the special issue of *Anthropologie et Sociétés* on 'Le métis comme catégorie sociale.'

Léopoldville and Stanleyville, at the confluence of the Ruki and the Congo river, Coquilhatville possessed an important harbor which not only served as the main port for the Equatorial hinterland, but also as a major 'lieu de transit' for stop-over and resupply.[94] As such, the town attracted a substantial number of 'gens d'ailleurs,' ranging from *petits blancs* such as Portuguese, Greek or Lebanese tradesmen, to entrepreneurs from Asian descent or clerks, advocates and merchants from foreign African colonies.[95]

These 'middle figures' not only complicated the colonial hierarchy by their mere presence, but would also actively and increasingly push for social recognition and special (medical) treatment from the end of the 1930s onwards. The first calls for such social privileges came from a few Africans who were considered évolués and came from colonies such as Nigeria, Côte d'Ivoire and Sierra Leone. The presence of this group of British and French Africans, and the fact that they were attributed a higher social status than most local Congolese, was not limited to the town of Coquilhatville alone. Rather, it reflected a more general policy the Belgian colonial government conducted, summarized by the popular maxim 'sans élite, sans ennui.'[96] This general 'reluctance to form an indigenous elite,' however, attracted 'a contingent of West African migrants' across the Congolese territory to fill in this societal vacuum. These migrants 'were known as Coastmen,' occupied the rare 'white collar jobs that went to Africans,' and 'formed a distinct yet culturally influential community.'[97] In 1939, the few Coastmen living in Coquilhatville had decided to bank on their particular social status. They used their connections with the British consul to pressure the Belgian medical services in offering them distinguished medical treatment, 'à part des autres, si possible dans un autre local et à une autre heure et en présence d'une religieuse infirmière.'[98] Even though the local *médecin-directeur* quickly tried to soothe the discussion, writing that 'Monsieur le Consul Général Britannique peut être assuré' that the medical treatment of these British Africans would take place 'dans les conditions les plus convenables,' the application nevertheless caused 'nervousness' amongst colonial authorities.[99] While government officials wanted to avoid 'des froissements' with foreign consulates or amongst the colonized population, they feared that granting the wishes of the 'Coastmen' would complicate the colonial hierarchy and put the door ajar for countless other demands.[100]

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94. As the already mentioned editor of *La Voix du Congolais*, Antoine-Roger Bolamba, called the town. See Bolamba, *La Voix du Congolais*, July, 1954, p. 91.

95. On how such 'gens d'ailleurs' impacted the urban built environment in other colonial towns, in particular Elisabethville, see Boonen (2019); Boonen and Lagae (2015a).

96. Dibwe dia Mwembu (2009, p. 70); Lauro and Piette (2009).

97. Loffman and Henriet (2020, p. 10) also discussed the presence of these Coast-men in Leverville and the concessions of the *Huileries de Congo Belge*.

98. AA/GG 19395, Letter from *Médecin en Chef* Van Hoof to Equateur's *médecin provincial,* 26 January, 1939.

99. AA/GG 19395, Letter from *médecin-directeur* to *Médecin en Chef*, 31 January, 1939. On 'nervousness,' see Hunt (2016).

100. AA/GG 19395, Letter from *Médecin en Chef* Van Hoof to Equateur's *médecin provincial,* 26 January, 1939.

1930s: *Le premier magasin de Patel, avenue de la mission.*

1952: *Clan Patel à Coquilhatville.*

Image 14 . The 'Clan Patel'

After migrating to Congo from Gujarat, India, Patel Ismail Youssuf made his fortune by importing foreign products such as Raleigh bikes or Bata shoes to remote towns such as Coquilhatville, where he lived. Through the construction of multiple stores, and by contributing to the socio-economic conditions and the social life of its Congolese workers, the Patel family not only had an important impact on the everyday reality of Coquilhatville, but also implicitly unsettled the colonial order by acting as 'middle figures.'

Pictures collected in Mbandaka and published by Stanislav Lufungula (2002, pp. 228, 231), who later shared the high-quality originals depicted here with Johan Lagae.
On the presence of Bata in colonial Congo, see Fivez (2018).

These anxieties were not unfounded. Soon after, another foreign group of Africans, now from Senegal, filed in another complaint. As Muslims, they felt they, and especially their wives, had not been treated with the appropriate 'discrétion nécessaire' during medical examinations.[101] Their grievances eventually paid off. They were ensured privileged medical treatment, as their 'femmes soumises à la visite seront désormais examinées en présence d'une aide-infirmière indigène.'[102] Nevertheless, it also set them apart from other non-European groups in a different, more unfavorable way. As 'sénégalais de réligion musulmane,' they became stigmatized because they 'exercent sur nos Congolais une influence dissolvante et démoralisante que personne ne conteste, et le plus souvent, ils les exploitent aussi adroitement que sans vergogne.'[103] This suspicion of Muslims aligns with the much longer history of castigation of Arabs and Muslims in colonial Congo. Especially early colonial propaganda had portrayed Arab slave traders as devious villains. The underlying aim was to sell King Leopold's colonialism as a philanthropic campaign that finally liberated allegedly helpless Congolese tribes of the yoke of its Muslim tyranny. In Coquilhatville, however, such stigmatization may have been particularly harsh, not only because it was in the Equateur province that some of these anti-slave trade campaigns had taken place, but also due to the rising prominence of the 'Clan Patel,' an economically prosperous business family of Indian Muslims led by entrepreneur Patel Ismail Youssuf. Known as the 'bâtisseur de Coquilhatville,' he not only heavily impacted Coquilhatville's cityscape, constructing various stores for both Europeans and Africans, but was also a popular figure amongst Congolese inhabitants due to his 'contributions socio-économiques' and his active support of the Congolese 'vie sociale.'[104] This Indian economic and social presence may provide an additional explanation for Coquilhatville's local animosity towards Muslims, as it unsettled the classic tripartite power structure of the State, Church and Belgian corporations, and added new, challenging socio-economic layers to the town's colonial hierarchy.

But not only foreigners complicated social stratification. In the nearby town of Lisala, a Congolese *abbé* was furious with the local doctor when he was refused healthcare treatment at the European dispensary. After he had complained to his European religious superiors, who quickly backed him in his demands, the local doctor of Lisala was unsure how to resolve the situation and asked for help from the *Médecin Provincial* in Coquilhatville. The tense subject quickly reached the national level and made painstakingly clear that the colonial government lacked a uniform understanding of what precisely constituted an évolué, how to distinguish different categories within the colonized upper-class, or which medical privileges to attribute to the growing number of social strata within the colonial hierarchy.

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101. AA/GG 19395, Letter from *Médecin Provincial* Schwers to *médecin-directeur*, 3 February, 1939.
102. AA/GG 19395, Letter from *Médecin Provincial* Scwhers to *Procureur Général*, 3 February, 1939.
103. AA/GG 19395, Letter from *médecin-directeur* to *Médecin Provincial*, 9 February, 1939.
104. Lufungula Lewono (2002, pp. 217, 227, 235, 238). With some of the most frequented shops of the city still labelled as a 'Patel' store, the Indian presence within Mbandaka's cityscape remains prominent.

The *Médecin provincial* had confidently replied to the local doctor that 'il est d'usage, dans toute l'étendue de la Colonie, de réserver aux Indigènes évolués, aux mulâtres civilisés et aux Asiatiques, des heures spéciales de consultations, qui ne coïncident ni avec celles des Européens, ni avec celles de autres Noirs,' and that treatment could be given in a separate space specifically reserved for this intermediate composite group.[105] Yet this directive only complicated matters. It not only added new layers to an increasingly complex colonial taxonomy, but also introduced a confusing semantic distinction between évolués and *civilisés*. In a handwritten addendum to the letter, the *Commissaire Provincial* further warned that categorization would only become more difficult, as 'la civilisation des noirs est rapide' and they could expect other professions such as advocates and 'gros commerçants' to join this rising African upper class.[106]

At the request of the *Commissionaire Provincial*, the central authorities eventually intervened. Dr. Thomas, the observing *Médecin en Chef*, acknowledged that there were no 'instructions précises, ni même de jurisprudence bien établie' regarding the matter, and that a clear distinction should be made between 'indigènes évolués' and 'indigènes civilisés.[107] According to Thomas, the former was comprised of a large number Congolese whose lifestyle was 'semblable encore à celle menée par leurs frères primitifs' even though they considered themselves part of an upper class. For these évolués, separate rooms and medical facilities should be reserved, but still in the hospital infrastructure for Africans. The latter category, on the other hand, included priests, abbots, and those 'rares noirs' often coming from a foreign colony, who exercised a liberal profession or possessed a university degree. It was this African elite that again caused general 'nervousness.' They were to be 'traités avec le plus grand tact et leur susceptibilité doit être ménagée, soit en les recevant dans un local spécial de l'hôpital des noirs, ou même de l'hôpital des blancs.[108] A few months later, *Gouverneur Général* Ryckmans once and for all provided a straightforward directive, largely confirming and specifying what his head of the Medical Service had already outlined before. Focusing on the delicate category of *civilisés*, he emphasized that it was imperative to avoid 'de froisser leur susceptibilité et de diminuer leur prestige aux yeux des autres indigènes.' As a solution, he stipulated that their medical examinations were to take place 'dans les locaux réservés aux européens,' albeit during different hours than European patients. Prolonged hospitalization was a slightly more difficult issue, for which he proposed to install either a 'chambrette confortable dans l'hôpital des noirs' or a 'petit local dans l'hôpital des européens.'[109]

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105. AA/GG 19395, Letter from *Médecin Provincial* Schwers to *médecin-directeur*, 30 January, 1940.
106. Ibid.
107. AA/GG 19395, Letter from *Médecin en Chef ad interim* Thomas to *Médecin Provincial*, 21 February, 1940.
108. Ibid.
109. AA/GG 19395, Letter from *Vice Gouverneur Général*, in name of the *Gouverneur Général* to *Gouverneur Provincial*, 5 April, 1940.

Through differing regimes of visiting hours, small African cabins in European medical infrastructure, luxurious private bedrooms for *civilisés* and separated dormitories for évolués in African hospitals, these directives reveal the various attempts of colonial policymakers to translate the increasingly complex colonial social order into a spatial hierarchy of healthcare. In Coquilhatville, however, this spatial translation proved particularly difficult. At the time the directives were launched in 1940, the town's hospital infrastructure, comprised of the 'scandalous' *Clinique* and the dilapidated *Hôpital Léopold II*, was marked by differences in comfort that were harsher than in any other colonial urban center. Since local officials watered down the progressive ambitions of the post-war *politique de rapprochement*, this situation did not improve until the eve of independence. This local decision-making, however, had unexpected adverse effects. Without a unified *Complexe Médical*, the town's binary hospital infrastructure and its stark oppositions of luxury and grandeur left little room for a spatial compromise. On the one hand, even though a separate pavilion was reserved for African évolués in the shabby hospital for Africans, this solution had already proven to 'froisser' the complex category of African *civilisés*. On the other, the monumental architecture of the *Clinique* did not offer the necessary spatial flexibility to add separate annexes for an African elite which would not antagonize the local European patients, and no extra cabins for *civilisés* were ever constructed.

In the end, the demands of various African groups for social recognition and distinguished healthcare privileges were not spatially translated into Coquilhatville's hospital infrastructure. Nevertheless, this bottom-up questioning of the colonial hierarchy may not have been completely in vain. 'Nervous' to offend the various groups within African elite, the colonial authorities had often granted their demands and had continuously added new social layers to an increasingly complex colonial hierarchy. With contradictory definitions of social classifications, semantic confusion, and an overall lack of consensus regarding which medical treatment to offer to which category, the authorities had become 'trapped in taxonomy.'[110] However, the fact that they proved unable to spatially adapt Coquilhatville's binary hospital infrastructure to this new social complexity may have created openings for these varying groups of 'middle figures' to nevertheless receive privileged healthcare treatment. While only two months before independence, and while the *politique de rapprochement* had never fulfilled its progressive promises, the increasing pressure on medical segregation may have eventually opened up access to the European *Clinique*, even if only to two Congolese and likely *métis* women.[111]

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110. Geenen (2019, p. 111). On urban segregation and taxonomy, see also Home (1997, pp. 118-122).

111. Several informants during our fieldwork also mentioned the fact that a prominent merchant named Bolodja – still a prominent family in Mbandaka today – also underwent surgery in the 1950s. Since the register of the surgery pavilion has not been stored, we were unfortunately unable to verify this.

Image 15 . *L'Hygiène et les installations médicales* in *Investir, c'est prospérer,* 1959, pp. 87-90.

3/LARGE

A 'medical model colony' implemented?
The *Plan Décennal*

At the end of the Ten-Year Plan, the Belgian colonial government boasted the achievements of a decade of colonial investments in *Investir, c'est prospérer*.[112] As part of a larger post-war colonial discourse that sought to legitimize colonial rule by branding it as a philanthropic endeavor, the booklet showed how the Ten-Year Plan not only included classic economic investments in sectors such as transport or mining, but also in housing, education, or healthcare for the colonized. With a distinct chapter on 'l'hygiène et les installations médicales,' medical infrastructure was key to this rhetoric. As discussed in 3/S, the booklet's pictures highlighted particular architectural success stories while strategically omitting unfinished paper projects. But even if the publication depicted the architectural *quality* of the colony's new medical infrastructure, its main emphasis was on the *quantitative* vastness of the Ten-Year Plan's hospital network. Lists of localities indicated where new rural hospitals and dispensaries had been realized, and tables showed the increasing numbers of beds from 1950 until 1959. Yet *Investir, c'est prospérer* was not the only publication to boast – one could say 'dignify' – these quantitative, 'efficient parts' of the state, and was based on perhaps an even more important colonial source: the *Carte des établissements médicaux importants*.[113]

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112. This booklet seems to have been relatively widespread, and current-day copies are held nowadays in libraries across America, Denmark, France, and, of course, Belgium.

113. On the 'dignified' and 'efficient' parts of the state, see Introduction and Van De Maele (2019, p. 12).
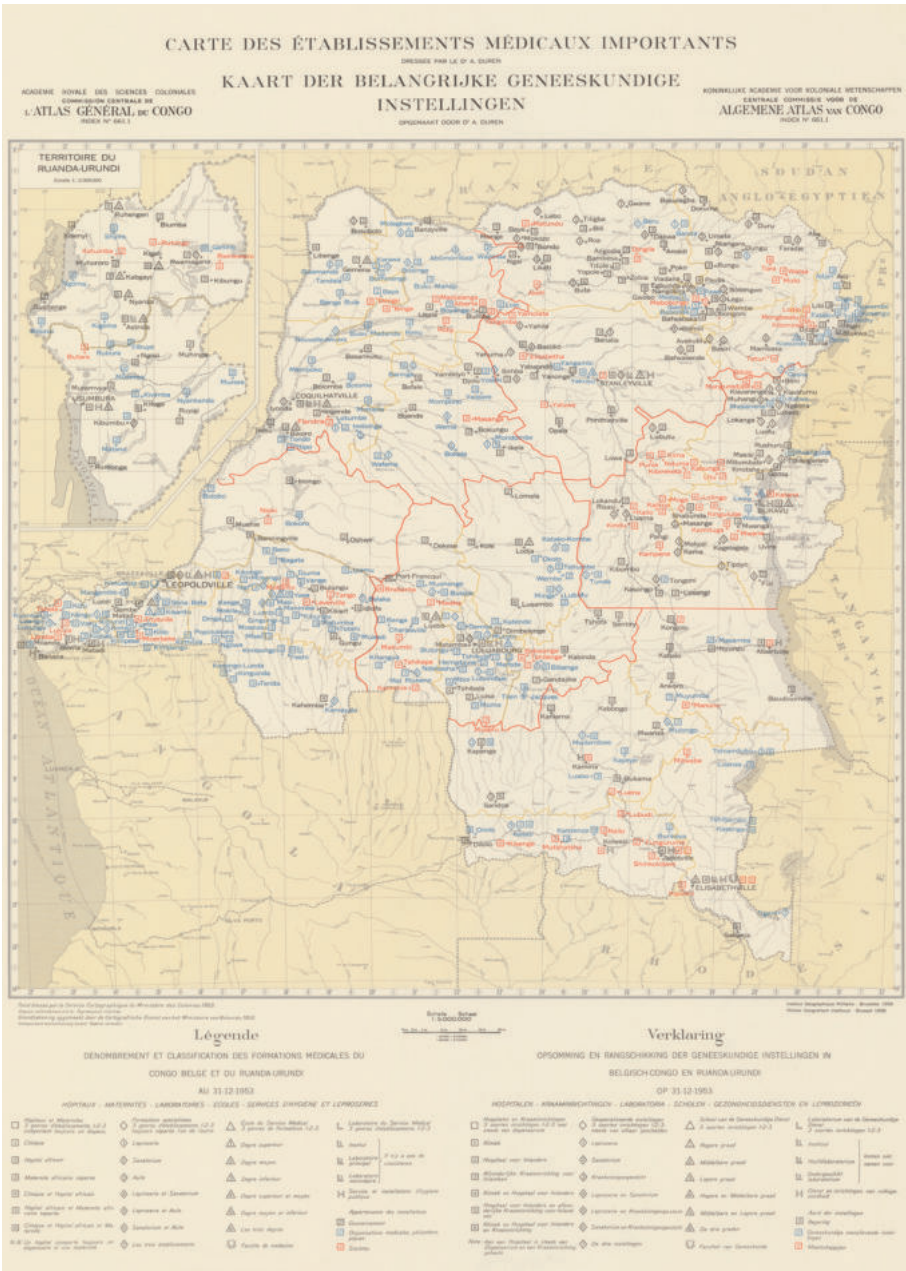
Image 16 . *Carte des établissements médicaux importants,* 1953

The *Carte* was published in 1953 as part of the larger *Atlas Général du Congo,* a compilation of multiple thematic maps, ranging from infrastructure, geology, or climate, to mining concessions and hydroelectric dams. With its objective appearence, the Atlas portrayed Belgian colonialism as a science-driven and progressive endeavor, and was in that sense perhaps even more succesful in spreading Belgian Congo's reputation of a (medical) model colony than some other pieces of propaganda. As discussed below, however, the struggles and messy methods of information gathering in preparation of the map, suggest a narrative that differs from this image of a stream-lined, model government apparatus.

If the tone of *Investir c'est prospérer* was deliberately celebratory, the medical atlas developed under the auspices of Dr. Duren, head of the Brussels Medical Department, aimed to be an objective and accurate mapping of the network of hospital infrastructure constructed in the first years of the post-war period. Published at the end of 1953, it offered an only preliminary overview of the implementation of the hospital infrastructure to be realized under the Ten-Year Plan, yet depicted an already impressive and dense network of hospital infrastructure. By the end of the 1950s, the colonial authorities had only further extended this *réseau hospitalier*. As already explained in the introduction, next to often state-sponsored private and missionary medical infrastructure, over 140 rural state hospitals – of which almost a hundred built from scratch under the Ten-Year Plan – and more than 1200 dispensaries offered healthcare to approximately 13.5 million Congolese, providing an average of 6.2 beds per thousand inhabitants. By mapping out and visualizing this network, Dr. Duren's *Carte* functioned as one of the crucial sources for later publications on Belgian Congo's healthcare service, including *Investir c'est prospérer*. As such, it was a pivotal document that established and consolidated Belgian Congo's international reputation and continuing legacy as a medical model colony.

By merely depicting or enlisting hospital infrastructure as simple symbols or statistics, however, both the *Carte* and publications such as *Investir, c'est prospérer* obscure the distinct and fine-grained narratives behind the planning, construction and everyday reality of these separate medical facilities. Such representations reflect how Belgian Congo's myth of a medical model colony has been cemented over the years. By reciting the same – often most easily accessible – numbers, maps and quantitative data originally published by the colonial authorities, many popular historical accounts still implicitly reiterate the essentializing logic that underpinned colonial propaganda.[114] Even some academic scholarship – often focused on domains other than colonial medicine – has fallen victim to this trap, by reproducing these statistics without truly digging deeper.[115] Other publications, however, have chiseled away at the myth of the medical model colony, referring to this data while immediately emphasizing the local and often violent histories of colonial healthcare in Belgian Congo these colonial statistics obscure.[116]

In this ***large*** scale, I also aim to nuance this statistical myth of the medical model colony by addressing some of these obscured histories and shifting the focus away from the final state of the medical model colony – as represented and reproduced through impressive statistics, numbers and maps in colonial propaganda – towards to the processes underlying the production of this healthcare network.

114. See e.g. Barbier et al. (2013); Eynikel (2002), but especially Burke (1992), which has formed an important source of information for many academic publications. See Introduction and Epilogue for a broader discussion on popular accounts regarding Belgian colonial history.

115. Young (1994, p. 212).

116. The most notable publications are without a doubt Hunt (1999, 2016); Lyons (1992).

How and why did the colonial government prepare, devise and chalk out the blueprint of this vast medical network? Which institutional reforms were necessary to buttress such massive infrastructural program? Which governing tools, blueprints or standardized plans did the colonial administration devise and utilize to efficiently manage the construction of such large number of hospitals? How did guidelines travel along the chain of command, and did local officials 'translate' these to on-site conditions?[117] To what extent did Africans have a say in this *réseau hospitalier*? Raising these questions on the 'how' of governing follows the general research aims behind the Foucauldian concept of 'governmentality,' as explained in the introduction. The notion not only stresses the ideological backbones behind governance – or the government-mentality – but also its practice, or the everyday 'art of governing.' Governmentality thus leads to questions about how government administrations deploy a 'variety of techniques and forms of knowledge' to 'render problems of government visible, facilitate political calculations' and allow to efficiently steer the conduct of a government's subjects.[118] In short, governmentality implies that understanding how a government apparatus operated, necessitates understanding both the rationale *and* practice behind its statecraft.

This **large** scale aims to unpack precisely these two sides of governmentality in Belgian Congo during the post-war period. This approach provides counterweight to the portrayal of the Belgian colonial administration as a purely rational, science-driven, and authoritative machine that was able to efficiently implement top-down government plans or realize a medical model colony. Historian Crawford Young's symbolic description of colonial authority as a stone-crushing, omnipotent 'Bula Matari' – a metaphor directly derived from Belgian colonial history – is perhaps the best example of such views.[119] James Scott, too, noted that 'an ideology of "welfare colonialism" combined with the authoritarian power inherent in colonial rule encouraged ambitious schemes,' of which the Ten-Year Plan forms a prime example.[120] Although Young's publication has proven incredibly influential, it has received increasing criticism from academic scholars who rightly argue that the colonial reality was much more complex and messy than Young's metaphor assumes it to be. The main critique on the 'Bula Matari' is that it confuses how colonial officials envisioned colonial rule with the actual colonial reality. Through the alternative metaphor of a 'crippled Bula Matari,' historian Gillian Mathys, for instance, stresses that 'it is vital to differentiate between the colonial state as an idea, and how colonial states were embodied and brought into practice.'[121]

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117. For more on 'translation' to local conditions, see 2/A, in which I draw on the concept of Akcan (2012).
118. As Chang (2016, p. 11) describes this Foucauldian concept.
119. Young (1994).
120. J. C. Scott (1998, p. 97). It should be noted that Scott's main argument contradicts the idea of a 'Bula Matari,' as he argues that such top-down state planning often failed precisely because it did not account for the importance of local realities.
121. Mathys (2014, p. 12).

This distinction is especially crucial with regards to the historiography of the Ten-Year Plan. In contrast to the much less studied *Plan Franck* or the almost unknown *Plan Renkin*, several historical studies have zoomed in on the transformative decade of the *Plan Décennal*. Already during its implementation, multiple Belgian and international studies covered the development of the Plan, which later became the subject of an extensive monograph published by Guy Vanthemsche.[122] Most of these studies, however, discussed the topic from a political, economic or administrative point of view. Despite the importance of healthcare in the Ten-Year Plan and the impact of the plan on the medical reputation of Belgian Congo, almost no studies focused on the Medical Program of the Plan.[123] Equally remarkable is the fact that few authors have discussed the *Plan Décennal* from an infrastructural point of view, and those that have focused exclusively on the original intentions and ambitions of the Plan, without questioning how and to what extent these ambitions were effectively realized.[124] By disregarding these 'unintended consequences of colonial rule' on the ground, these studies implicitly assume that the Plan was realized as planned, and thus executed by a potent and efficient government apparatus, again sustaining the image of Belgian Congo as a 'Bula Matari.'[125]

To nuance our understanding of Belgian Congo as a 'Bula Matari' and a medical model colony, I trace the governmentality of the Ten-Year Plan and contrast the ideas behind its central planning with its often messy practical implementation on the ground. I do so by mainly zooming in on the development and use of type-plans for rural hospitals. Centrally devised yet deployed across the vast Congolese territory for around ninety medical centers, type-plans form a particularly interesting entry point to unpack the complete modus operandi of the colonial state, from its central planning in the headquarters of Brussels and Léopoldville to its local implementation in remote outposts across Belgian Congo.

While the first section of this scale offers a more general discussion on the surprisingly messy preparation of the Ten-Year Plan behind the scenes, the three subsequent sections focus on various facets of the development and use of these standardized plans. The second section deals with the tension inherent to the use of generic type-plans, which balanced between rigid models and flexible tools. At first glance, central authorities developed type-plans to function as efficient and 'immutable' 'technologies of distance' that allowed the same design model to

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122. For contemporary publications on the Ten-Year Plan, see e.g.: Gourou (1952); Huge (1955); Ministère des Colonies (1954); Van Bilsen (1949); Vermeersch (1955). For later, historical works: Etambala (2008); Vanthemsche (1994, 2005).

123. The topic is only superficially addressed by publications discussing colonial medicine in Belgian Congo during the 1950s. See e.g. Burke (1992, pp. 120-121; 125-128); Hunt (1999; 2016, pp. 167-205). The only notable exception is the exploratory study of Duval and Verschakelen (1986) on the architectural realizations of the *Fonds du Bien-Etre Indigène*.

124. See De Meulder (1994, 2000).

125. Mathys (2014, p. 4).

'circulate from one point to another within the network without distortion.'[126] Drawn without regards for the future spatial context, type-plans were developed to move along the chain of command and to be reiterated in even the most remote and diverse regions of the colony. As such, they suggest how central authorities seemingly disregarded the local realities of rural Congo as irrelevant, reducing the distant Congolese hinterland to a climatically and socio-culturally isotropic blank canvas, on which the same rigid model could be imprinted. Closer inspection, however, indicates that central policymakers may have consciously introduced some possibilities for flexibility in the use of these type-plans, by choosing for a modular pavilion typology hospital.

While type-plans certainly originated to create a workflow that facilitated an authoritarian, top-down implementation of the Ten-Year Plan, its on the ground realization was much more reliant on this modular flexibility. The third section discusses how, as type-plans were disseminated from the central authorities to the various provinces, provincial branches each translated the plans to local realities of climate, budget or regional healthcare challenges. Instead of rigid models, type-plans functioned as surprisingly flexible tools, which allowed provincial architects, but also building contractors and government agents to tailor the hospital's design to site-specific conditions of topography, parcel dimensions, vegetation, or the presence of local roads or African trackways. The fourth section shows how again driven by budgetary restraints and logics of making do, these locally adjusted plans were sent back out across provincial boundaries and to the central authorities. An economy of plans and paper emerged, where designs circulated against and across the chain of command of the state, while paper shortages amidst the administration turned paper plans into a valuable resource, inciting provincial branches to carefully recycle used copies of type-plans.

The original conceptualization of rural Congo as a homogeneous blank space engrained in the Ten-Year Plan's Medical Program not only clashed with site-specific conditions or provincial differences in climate or healthcare. As the last section discusses, the idea of an outstretched, homogeneous rural Congo also was at odds with the reality of internal borders – implemented to make the colonial territory and its population 'legible' and governable[127] – as well as external frontiers, which entailed specific challenges of migration and sanitary border surveillance. Zooming in on two peripheral nodes within the post-war network of healthcare infrastructure – the rural hospitals of Kiri and Aru – illustrates the additional motives of state presence, territorial control and healthcare surveillance behind the Ten-Year Plan's Medical Program, and how these clashed with local border realities.

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126. As Chang (2016, p. 248) deploys Latour's (2003, pp. 215-257) concept of 'immutable mobiles.'

127. Internal borders facilitated the colonial state's attempt to 'make a society legible, to arrange the population in ways that simplified the classical state functions of taxation, conscription and prevention of rebellion,' as Mathys (2014, p. 14) explains quoting J. C. Scott (1998, p. 2).

The Ten-Year Plan published: between program and propaganda

The final version *Plan Décennal pour le développement économique et social du Congo belge* was officially published in 1949 in Brussels. Comprised of two extensive volumes, the publication thematically covers various sectors such as infrastructure, agriculture, housing, education or healthcare, and seemingly attributes equal importance to welfare as to more conventional economic investments in industrial development. Each segment generally includes a historical overview, and outlines the weaknesses, challenges and opportunities of each of the relevant sector, from which future investments and policies are then logically derived. The plan thus reads as an empirically grounded and clearly delineated program, and the segment on healthcare is a prime example of this. With tables subdivided for various provinces, the rural hinterland and urban centers, and with various investments categorized under different priorities, the Medical Program seems a neatly outlined step-by-step program, scientifically based on rigorously collected empirical data and statistics derived.

When tracing the actual preparation of the plan behind the scenes, however, the official version of the Ten-Year Plan proves much more a document of state propaganda, than an effective policy program for the colonial administration.[128] The goal of the official publication was not to provide colonial officials with clear policy guidelines, but to advertise the ambitions of the colonial state to the outside world, and thus legitimize Belgium's colonial project. This becomes clear on two levels. On the one hand, by presenting the Ten-Year Plan as a finished and fixed program, the Ministry cloaked how its preparation had been a process of trial-and-error, of messy making do, and of time-consuming and sometimes tense collaborations between various administrative branches that had never actually resulted in a final and clearly delineated step-by-step plan of action. On the other, it obscured how the relatively progressive ideologies and aspirations behind the Plan had been watered down throughout its preparation. Whereas some of the original advocates of the Plan had cherished progressive ambitions – especially in terms of how it would be financed and the degree to which it would address the welfare of the colonized – these ambitions quickly clashed with a lack of political will and economic restraints during the Plan's preparation.

To understand how these ideologies were watered down, it's necessary to retrace the original ambitions behind the idea to develop a Ten-Year Plan. Immediately after the war, several influential policymakers emphasized the harsh living conditions

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128. This section confirms the earlier conclusion by Vanthemsche (1994, p. 16) that the final publication of the Plan was indeed a watered down, and politically safe version of its original, progressive intentions: 'Fruit de longs mois de réécritures, de consultations et discussions avec un nombre croissant de personnes et d'instances, le Plan de 1949 arrondit de nombreux angles, afin de pouvoir recueillir un consensus aussi large que possible.' My analysis complements his work by zooming in on the Medical Program, and, especially, by emphasizing the messiness of the Plan's preparation process and positioning this within the general improvisational *modus operandi* of the colonial apparatus during its execution.

Image 17 . Medical Program of the Ten-Year Plan
Wigny (1949, pp. 56-57).

the Congolese had faced during the war, and argued that it was the obligation of the colonial government to improve their faith. Reflecting the global emergence of the 'development paradigm,' large-scaled, state-led investment schemes were believed to offer the best solution to do so. In his *discours d'adieu*[129] – Pierre Ryckmans made the first explicit argument for such a state-led investment program. That Ryckmans believed a 'big push' would help Congo 'à combler des siècles de retard' in comparison to the West shows how the belief in development economics was indeed deeply intertwined with broader assumptions of the linear convergence of history.[130] Ryckmans' call for statism, and his belief in an omnipotent, well-oiled state apparatus, was endorsed by other important colonial figures as well. Hendrik Cornelis, a senior officer of the colonial economic administration who would eventually rise through the ranks to become Belgian Congo's last *Gouverneur Général*, shared this opinion.[131]

While both Ryckmans and Cornelis pointed to state regulation as the most efficient way to develop the Congolese economy, their main argument for a 'big

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129. That this *discours d'adieu* is indeed a good starting point to discuss post-war policy views, was already noted by Vanthemsche (1994, p. 9), who stated that the text epitomized 'les nouvelles conceptions en matière de politique coloniale qui s'étaient développées pendant et juste après la guerre.'

130. Ryckmans (1946, p. 207).

131. During study trips to the United States, Cornelis had become a strong proponent of a state-led planned economy. He had met with Wassily Léontief, one of the founding fathers of development economics who greatly impacted later theories of famous development economists such as Solow (1956) – a personal student of his – and Rostow (1960), who would coin the concept of linear 'stages of economic growth.'

push' was in the first place not an economic one. Rather, both saw the future Ten-Year Plan as the most direct solution to the Congolese *malaise social* caused by the war. Especially in Brussels, many lower-ranked colonial administrated shared these views. In contrast to earlier schemes such as the *Plan Renkin* or the *Plan Franck*, issues such as labor productivity, efficient transport infrastructure or other more conventional economic objectives were no longer discussed as goals in itself, but rather as a subordinate means to increase welfare. As the new Minister of Colonies Pierre Wigny wrote in an internal note to the *Secrétariat du Plan Décennal*, the central governing body responsible for the general preparation and coordination of the Plan: 'le plan décennal tend à accroître dans un délai déterminé la productivité et la production du Congo et *ainsi* à assurer les fondements matériels du développement de la civilisation.'[132] Members of the *Secrétariat* formulated the same welfarist intentions. Economic targets such as 'le développement de la capacité productive' were seen as subservient to increasing welfare, as 'de telles activités réalisent plus directement et donc plus sûrement la généralisation du bien-être.'[133] Instead, they prioritized 'la civilisation spirituelle et matérielle de la population du Congo Belge' and 'une juste répartition des richesses' as the 'principes directeurs de la politique économique au Congo Belge.'[134]

In similar vein, Ryckmans and others had argued that the Belgian *métropole* should bear the complete financial burden of the Plan – an incredibly progressive proposal, as even during the interbellum, Belgium had only endorsed a small portion of the *Plan Franck*. Pointing at the best practices of the British *Colonial Development and Welfare Act* and the French *Fonds d'Investissement pour le Développement Economique et Social*, Ryckmans proposed that Belgium develop what he termed a 'fonds de progrès social et de développement économique.'[135] This fund would spare Congo from the heavy burdens of a 'boule de neige' of accumulative rent and fulfill Belgium's moral obligation to pay back the costs of war.[136] With Ryckmans retiring, however, an important proponent of a Belgium-financed investment program withdrew from the colonial administration, and the new, more liberally oriented political leaders did not share the same enthusiasm for metropolitan funding.

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132. AA/H 4570, *Mémorandum du monsieur le Ministre* to the *Secrétariat du Plan Décennal,* 18 May 1948, original emphasis.

133. AA/H 4570, *Document servant de base à la réunion du comité du plan du 10 septembre sur les principes directeurs de la politique coloniale belge,* 10 September 1948. Interestingly, the original document advocated 'une juste répartition des richesses ~~nouvelles~~,' but the 'nouvelles' was crossed off, suggesting that, in some way, goods should also be distributed retroactively, making the original guiding principles of the Ten-Year Plan even more progressive.

134. Ibid.

135. Both financial vehicles through which the socio-economic schemes developed in the various British and French colonies would be funded by the *metropole*. Ryckmans (1946, p. 211).

136. As Ryckmans (1946, p. 215) said: 'Aucune Puissance coloniale n'a songé à faire payer par ses pupilles les frais de leur assistance dans la guerre. C'est à la Métropole, cela va de soi, qu'incombent les dépenses des troupes congolaises mobilisées pour sa libération.'

Two years later, however, a new change of guards at the Brussels colonial department occurred, and the new Minister of Colonies Pierre Wigny revived the idea of the Ten-Year Plan, but now without Belgian funding. Instead of unconditional donations, international loans and obligations would be used. This surely was the safest political choice for the Minister of Colonies, who, as a result, did not have to go through the difficult process of convincing the Belgian parliament for hand-outs during the strenuous years of post-war reconstruction.[137] Nevertheless, it received harsh criticism from various prominent figures within the colonial scene. Pierre Ryckmans, now Belgian representative at the United Nations, continued to caution for the financial risks of accumulative rent. Professor Jef Van Bilsen expressed similar concerns, and warned that Belgium had to avoid charging its colony with the 'poids des intérêts et amortissements' by following 'les exemples britannique et français et à donner généreusement à ses territoires africains.'[138]

There was, however, one exception to Belgium's funding policy approach, one that was and is overlooked by contemporary critics and current historians, but one that is especially vital when scrutinizing the Ten-Year Plan's Medical Program. Under impetus of Minister Wigny, who despite his choice for international loans had remained an unofficial proponent of complete metropolitan funding, the *Fonds du Bien-Être Indigène* (FBEI) was founded in 1947.[139] This parastatal welfare organization was inspired by 'des réalisations française et britannique.'[140] It not only largely defined its own social policies, its financing also mainly resulted from indirect donations from the Belgian state to the colonial government. While most of its starting capital was a due reimbursement of the Congolese war expenditures, much of its running expenses were covered by the Belgian Colonial Lottery.[141] With limited overall expenses of around 1,3 billion Francs, the FBEI only had a small share in the Ten-Year Plan's overall budget of over 48 billion.[142] However, the FBEI covered over a tenth of the total budget spent on the Ten-Year Plan's

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137. Although this was politically the easiest solution, Minister Wigny nonetheless seems to have been a proponent of metropolitan funding. As he wrote in a personal memorandum: 'C'est une obligation de souveraineté pour la métropole de participer directement au financement d'un plan destiné à développer le bien-être de la Colonie.' AA/H 4570, *Mémorandum du Ministre*, 18 May, 1948.

138. Van Bilsen (1949, p. 222).

139. Interestingly, Minister Wigny acknowledged that the ponderous government apparatus was not the quickest or most efficient way to improve the faith of the Congolese, and this was precisely the reason he decided to found the parastatal organization: l'instrument le plus efficace pour promouvoir le bien-être, tant moral que matériel des populations, serait un fonds doté de ressources importantes et jouissant d'une autonomie suffisamment large pour n'être pas entravé dans son action par les règles de l'administration hiérarchisée.' See FBEI (1954, pp. 5, 6).

140. FBEI (1964).

141. Congo had not only financed military efforts, but also provided direct financial support to the Belgian interim-government in London during the war. See Stengers (1957, pp. 110; 115-117) and FBEI (1964, pp. 30-31). As Stengers argues: 'la loterie d'Etat étant une manière d'impôt, il eut été normal que la Belgique levât cet impôt a son propre profit, pour soulager ses propres finances, comme le faisaient pratiquement tous les pays d 'Europe possédant une loterie d'Etat.' It is this fact that Guy Vanthemsche has overlooked, when discussing the funding of the FBEI, stating that 'cette dotation n'était toutefois que le remboursement par la métropole des dettes de guerre encourues par la Belgique envers sa colonie.' Vanthemsche (1994, p. 83).

142. Vanthemsche (1994, p. 68).

Medical Program, and was hence of particular importance to the realization of the Belgian medical model colony.

The general goal of this fund was to 'améliorer les conditions de vie des indigènes du Congo belge et du Ruanda-Urundi,'[143] but it mainly focused on improving rural healthcare services – especially in the first half the 1950s. Rather than replacing the responsibilities of Belgian Congo's *Gouvernement G*énéral, the fund was ought to play a merely complementary role as a parastatal philanthropic organization. As Minister Wigny wrote: 'Son action, toutefois, ne réduira pas les obligations que la Colonie assume actuellement, notamment en matière d'enseignement et d'assistance médicale. Celles-ci constituent des charges de souveraineté dont l'Etat n'entend pas se débarrasser.'[144] Nonetheless, there was great lack of clarity amongst colonial administrators on where exactly the state's obligations stopped and where the responsibilities of the parastatal organization started. As I'll discuss in later sections, partly because of this confusion, the administration would severely misjudge the healthcare expenses of the Ten-Year Plan, which created additional financial challenges for the Public Works and Medical Services.

If the funding behind the Plan was being watered down, so was its underlying ideological rationale. Throughout the preparation, bureaucratic procedures and practicalities played a huge role in this. As the planning of a vast investment scheme was an unseen task, the *Secrétariat du Plan Décennal* decided to found several Subcommittees, which would each be responsible for the preparation of particular building programs for separate sectors such as transport infrastructure, education, or healthcare. Each Subcommittee had to propose and justify its own cost estimation, which the general Secretariat could then approve or adjust. As a result, Subcommittees were all vying for financial approval, and the discourse deployed to convince the Secretariat quickly moved from welfarist logics to a more budget-oriented argumentation. Especially the Subcommittees of less financially profitable sectors such as education or healthcare started emphasizing how social investments would nonetheless engender convenient increases in labor productivity and economic output. The 'exposé justificatif,' of the medical committee, for instance, is telling:[145]

> Le bien-être matériel est, partout, conditionné par la production de richesses. Certes, cette production est tributaire du développement économique, mais pour produire il faut des bras. On peut évidemment envisager d'augmenter le nombre de bras valides, mais aussi et surtout, il importe d'augmenter la capacité de rendement de ceux qui existent. A la Colonie, non seulement les bras manquent, mais encore ceux dont on peut disposer ont, le plus souvent, un rendement médiocre.

143. FBEI (1964, p. 20).
144. FBEI (1964, p. 20).
145. AA/H 4570, Rapport de la commission médicale du Plan Décennal de la Colonie, 6 April 1948.

This application process not only incited more economically-driven logics, it also had a huge effect on the Ten-Year Plan's general budget. Since the funding was done through international loans, there was no longer a well-defined financial cap. Instead of refusing or downscaling the applications of their colleagues, the Secretariat often simply accepted the proposed programs, adjusting the overall budget and the necessary loans accordingly. As investment schemes of the various Subcommittee poured in, the Plan quickly bloated into an incoherent an overambitious 'juxtaposition des programmes des différents services du gouvernement général et des parastataux,' which, over time, would prove increasingly difficult to manage and finance.[146] Throughout the preparation of the Plan, the financial pitfalls Pierre Ryckmans had initially warned for, were scoffed aside as irrelevant, or deemed politically unfeasible. Despite Ryckmans' warnings, the Plan was funded by international loans and the budget of the *Plan Décennal* quickly conflated. The feared 'boule de neige' of accumulative rent quickly became an unstoppable avalanche, and by 1957 would start to weigh heavily on Belgian Congo's economy.

Such incoherent planning clearly shows the second level on which the official publication of the Ten-Year Plan was propaganda rather than an actual policy scheme. It concealed the patchiness and inconsistencies that occurred throughout the Plan's preparation, not only between the Brussels Subcommittees of the Secretariat, but also in the various local branches of the Congolese *Gouvernement Général*. The development of the Medical Program forms a prime example of this. While each Subcommittee of the Brussels *Secrétariat du Plan Décennal* had to outline its own program, they often lacked vital information to properly do so and were forced to rely on know-how and suggestions from local agents. This often resulted in considerable delays.[147] The Medical Subcommittee, however, was somewhat of an exception, as it could rely on very recent experiments and experiences. In response to the *effort de guerre*, the *Médecin en Chef* Lucien Van Hoof, likely supported by his right hand and future successor, veteran military doctor Auguste Thomas, had launched a medical emergency program immediately after the war.[148] Fourteen small hospitals and multiple satellite dispensaries were to

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146. As Jef Van Bilsen (1949, p. 216) already remarked at the time. He continued, saying that 'on cherche en vain à travers les différents chapitres du plan congolais les standards communs, l'emboîtement de l'ensemble, qui se trouve imprimé dans d'autres plans africains.'

147. The Department of Justice, for instance also developed a plan for a network of penitentiary institutions. However, they could not rely on any preceding plans as the Medical Department could, and their program was only finished in 1952, two years after the official launch of the Ten-Year Plan. See Agniel (2019).

148. They heeded the calls of the head pharmacist of the Brussels Medical department, who had already warned in 1942 for 'l'insuffisance du matériel hospitalier des formations médicales' and called for medical investments 'dès la cessation des hostilités.' AA/H 4390, *Etude sur la capacité de l'outillage hospitalier de la colonie* by M. Bilquin, 4 April 1942. Bilquin based his study on the annual reports of the *Gouvernement Général* of 1936 until 1938. As he admitted, 'les documents y recueillis sont très fragmentaires.' The fact that these outdated, secondary sources were used for such a study testifies not only of the radio silence between Brussels and Léopoldville during the war, but also of a more general lack of up-to-date knowledge at the Brussels Department on the colony's public healthcare infrastructure.
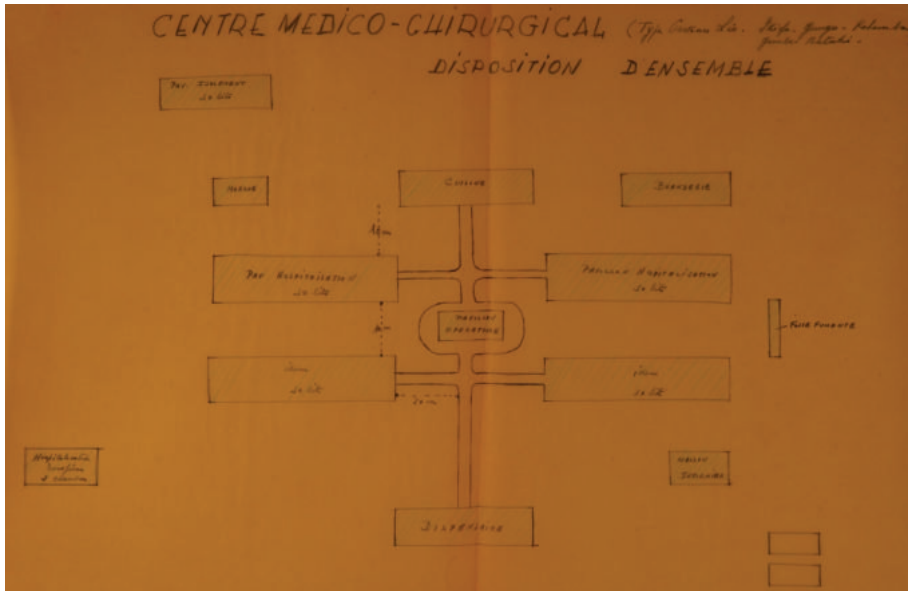
Image 18 . *Centre Médico-Chirurgical, disposition d'ensemble*

This very tentative sketch was used as the standard basis for rural hospitals constructed or planned under the post-war emergency plan. It was likely derived from earlier hospital plans developed under the FOREAMI. Even after the emergency plan was incorporated within the Ten-Year Plan, several hospitals, especially in the Léopoldville province, would be constructed according to this structure with a single axe.
AA/3DG 601, *ca.* 1946.

be built in those rural regions that had been 'les plus dépourvues' and 'menacées' during the war.[149] Even if the emergency program suffered considerable delays – ten of the fourteen hospitals were still not realized by 1950, and were simply reintegrated in the Ten-Year Plan – it did provide an important learning ground for the Medical Services. They experimented with the use of standardized plans across the colonial territory (Image 18), further developed the concept of a hierarchic healthcare network already explored under the FOREAMI, and learned to coordinate between various geographical branches of the Medical Services.

Based on this emergency program, the *Médecin en Chef* Dr. Van Hoof started collaborating with Dr. Duren, head of the Brussels Medical Department to develop a colony-wide public healthcare program. The scheme quickly became known as the *Plan Van Hoof-Duren*, even though Dr. Van Hoof already retired in May 1946. Dr. Duren continued to work together with his personal friend and Dr. Van Hoof's successor, Dr. Thomas. The healthcare policy they developed was straightforward but ambitious. The *Plan Van Hoof-Duren* envisaged a complete medical coverage of the Congolese territory through a far-reaching densification

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149. AA/H H 4570, *Plan décennal du Service médical*, Dr. Thomas, 5 April 1948.

of the existing healthcare network constructed under the *Plan Franck*. By 1949, the Belgian colony had been reorganized into six provinces, with 17 districts, in turn subdivided into a total of 117 *territoires*.[150] While in the largest urban centers, flagship hospitals according to the new *politique de rapprochement* were being planned, , the goal was to provide every territory with a rural hospital and several satellite dispensaries throughout the 1950s.

If this territorial subdivision provided a seemingly straightforward blueprint for the future hierarchic healthcare network, deciding in which outposts rural hospitals had to be constructed still proved a lot more complex than anticipated. Neither the Medical Service in Léopoldville, nor the Medical Department in Brussels possessed a comprehensive overview of the existing healthcare infrastructure at the time. Dr. Duren and his Léopoldville counterpart, Dr. Thomas, started sending out surveys and letters to compile this data. They first approached several large mining or agricultural companies. In the letters, they explicitly implicated these in the propagandizing mission of the Ten-Year Plan, writing that 'pour donner à l'opinion publique, aussi bien nationale que mondiale, une idée plus exacte du sacrifice que compte consentir la Belgique en faveur des populations indigènes du Congo Belge,' they had to know the company's 'dépenses de Welfare en matière médicale.'[151] Similar surveys were also sent to various missionary groups, in order to get an outline of the religious and philanthropic healthcare infrastructure existent in the colony (Image 20).

Finally, Duren and Thomas also sent out surveys to the six provincial governments.[152] Based on the local expertise of various sanitary agents operating and travelling across the Congolese rural hinterland, these provincial branches provided the central administration with the needed information on the hospitals built in each province. Each of the six heads of the provincial medical services combined, summarized and processed the data of their sanitary agents into provincial reports, in which they also proposed a financial estimation of their local healthcare needs. These reports were then reviewed and compiled in Léopoldville and reassessed in Brussels. After two years of collecting and analysing data, the information provided by the provincial departments finally resulted in a first comprehensive overview of the state, philanthropic and private hospital infrastructure existing in Congo at the time, which would provide the basis for the later *Carte des établissements médicaux importants*.[153]

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150. Ministry of Colonies, *Rapport Annuel*, from years 1950 to 1958. Throughout the implementation of the Ten-Year Plan, this administrative subdivision would be altered several times, ranging between 117 and 125 *territoires*.

151. AA/PD 1534, Letter from Dr. Duren to various companies, n.d.

152. See various circulary letters from Dr. Duren in AA/PD 1534.

153. AA/H 4470, *Dénombrement et classification des établissements du S.M.,* 1948.

Image 19 . Administrative subdivsion of Belgian Congo

Just as had already been the case under the *Plan Franck*, the Medical Program closely adhered to the hierarchic subdivision of the colonial territory. Large medical complexes were planned in provincial capitals, district and territory seats would house rural medical centers, and rural dispensaries would be constructed across numerous rural villages. By devising the same, iterative type-plan for over ninety territory seats, the colonial government implicitly considered the colonial hinterland as an isotropic, blank canvas. Nevertheless, as will be discussed below, type-plans would function as flexible tools rather than as rigid models, allowing local officials to adapt hospital design to local conditions.

Wigny (1949, p. 7).
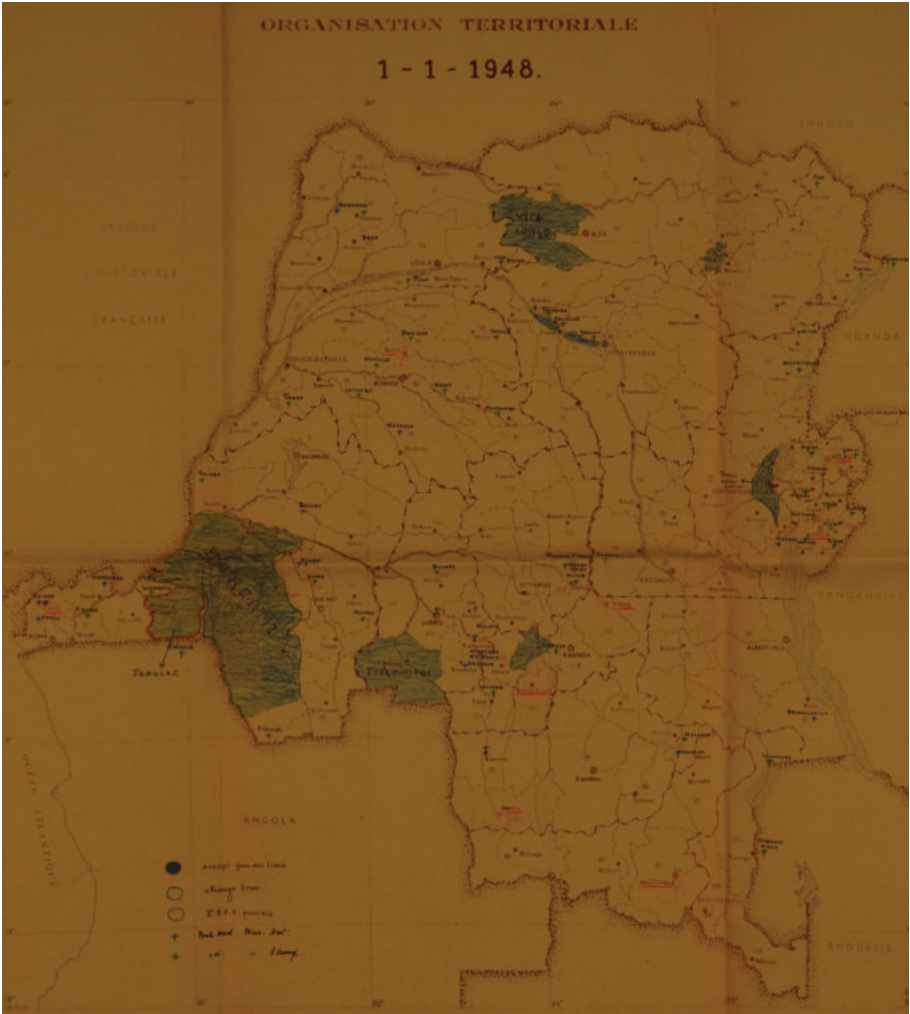
Image 20 . Religious and philanthropic healthcare infrastructure

During the preparation of the Medical Program, central policymakers compiled the responses of religious missions and philanthropic organizations into preliminary maps, which were often recycled copies of documents that had originally be printed for completely different uses - here, a map of the administrative subdivision of 1948 was re-used. This use of crayons on recycled plans provides an early example of improvised bureaucratic procedures that would later become widespread during the implementation of the plan, as paper became an increasingly scarce resource.

AA/PD 1536.

Meanwhile, surveys on other topics were being undertaken as well. Local agents collected, processed and sent out data on demographics, road and railway infrastructure, as well as on nosology or the incidence of tsetse flies. If anything, these new datasets complicated the preparation of the Medical Program even more, as the central authorities were faced with the fact that multiple and complex local healthcare issues and demographic challenges had to be taken into account when deciding where to build new hospital infrastructure. In the end, despite or because of all these empirical surveys, the Medical Program remained under discussion until the very deadline of the Ten-Year Plan. Both the Provincial Governors and the central authorities continuously kept proposing adjustments to the list in response to their local needs, while the central Medical Services in Léopoldville brokered between the provincial branches and the Medical Subcommittee in Brussels to keep the financial demands in check. Eventually, the Medical Subcommittee decided to apply for a budget of an estimated 93 rural hospitals, although it was well aware that this list would still need to be changed and specified later on.[154]

This messy patchwork of various datasets and actors that was put together during the preparation of the Ten-Year Plan's Medical Program forms a prime example of what Paul Rabinow and Nikolas Rose have called 'strategic bricolage.' With this term, they describe a specifically colonial form of 'governmentality' in which 'multiple authorities and agencies are grouped together, and a variety of techniques and forms of knowledge are employed,' to 'render problems of government visible' and facilitate everyday governance.[155] The term is especially suitable here, precisely because it highlights the very situational, often locally-driven and sometimes even improvised combination of various techniques of government, forms of knowledge, collections of information and administrative bodies that were part of colonial governance. It was this messy preparation that the official version of the Ten-Year Plan sought to obscure, by portraying the Plan as a clean, perfectly thought-through and coherent policy scheme aimed at the socio-economic welfare of the Congolese. Yet the flexibility that resulted from the patchy and incomplete bricolage of the Medical Program would actually turn out a blessing rather than a curse. As the following sections show, together with flexible type-plans, it was the absence of a clearly defined Medical Program that would allow local colonial policymakers to easily readjust their building program each year, and respond on the spot to emerging local healthcare challenges, administrative changes or new financial constraints.

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154. That such a final list could not be compiled, may have also been due to the pressure of provincial administrators, who preferred not to have a stringent program to follow for over ten years. As Dr. Hoebeke, the *Médecin Provincial* of Kivu, for instance, wrote during the preparation of these lists: 'Je pense qu'il ne faut pas prendre à la lettre la liste des postes où on prévoit la construction de toutes pièces d'un C.M.C. ou la transformation ou la reconstruction d'hôpitaux ruraux. Cette liste n'est là qu'à titre indicatif [...] Ce qui importe, me semble-t-il, est l'estimation des dépenses.' AA/PD 1534, *Note du Médecin Provincial*, 11 September, 1948.

155. Rabinow and Rose (1994, p. xvi). For a good, concise discussion on colonial governmentality and strategic bricolage, see also Chang (2016, p. 11).
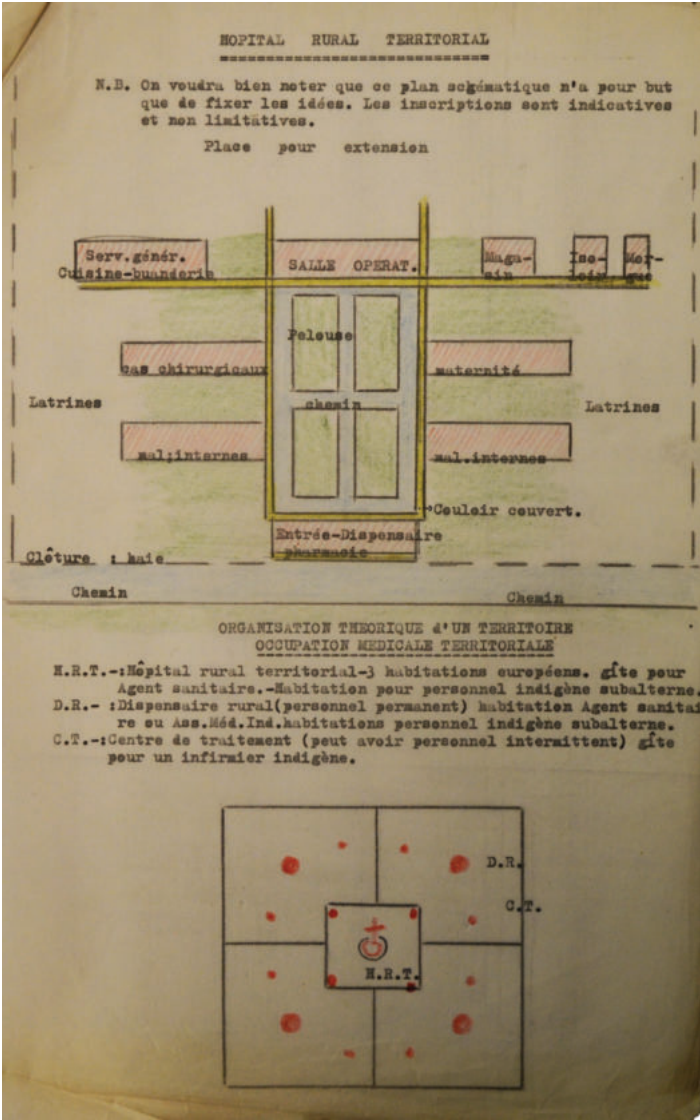
Image 21. Sketch of rural hospital and theoretical *Occupation médicale territoriale*

Proposing a standardized plan within a diagrammatically presented rendition of a rural territory, this sketch at first glance suggests that colonial officials saw the rural hinterland as an isotropic blank canvas. Nevertheless, the flexibility built in type-plans by e.g. Dr. Duren, somewhat complicates this observation.

AA/3DG 984.

Type-plans: flexible tools or rigid models?

Already during the early preparation of the Medical Program, healthcare officials unanimously decided that type-plans should be used to streamline the efficient construction of the vast *réseau hospitalier*. When Dr. Duren and Dr. Thomas summoned the *Commission des Médecins*, its high-ranking members agreed that the numerous rural hospitals had to be 'édifiés d'urgence' through a 'standardisation des plans.'[156] A year after the Commission had gathered, Dr Duren published a pivotal report in which he further elaborated the Commission's decisions, explaining in even more detail how to 'renforcer l'action médicale dans les zones rurales.'[157] In the report, he presented a first sketch for the type-plan for rural hospitals as well as a tentative diagram depicting the 'organisation théorique' of the hierarchic hospital network within a rural territory (Image 21).[158]

That this sketch was not by the hand of an architect or engineer but by Dr. Duren himself, reconfirms how the professional clout of colonial doctors truly reached far beyond purely medical domains, as they made the crucial decisions even during the early design stages of hospital infrastructure. Only in the latest phase of the design process did the Congolese Public Works Service become involved. Remaining largely faithful to the sketch's original outlines, A. Flahou, one of the many Public Works architects, technically elaborated and fine-tuned the doctor's sketch. The result was a set of official type-plans for a standard rural hospital, also called a *Centre Médical Chirurgical* or C.M.C. These plans were combined in an easily transportable binder that could be efficiently sent from the central administrative seat in Léopoldville to the various provincial branches across the colony.

The binder included detailed and technically elaborated type-plans for each pavilion, as well as a general *Plan d'Ensemble* of the rural hospital (Image 22). The latter included several single-storey pavilions, symmetrically organized around a central courtyard and connected by open yet covered corridors. The pavilions were oriented with the long axis from east to west, as was considered the best practice for buildings in the tropics. Each of these wards housed a particular medical service, varying from surgery, maternity care and infectious diseases, to general services such as administration and logistics. At the end of each pavilion, a T-shaped sanitary cell was added. The central ensemble of main pavilions functioned as a spatial buffer between the 'partie gauche pour indigènes' and the 'partie droite pour Européens.' The latter consisted of housing for the European

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156. AA/H 4387, *Réorganisation et Extension des Service Médicaux: Rapport sur les Travaux de la Commission des Médecins*, August – October, 1946. The official Medical Subcommittee under the *Secrétariat du Plan Décennal* later made this aim more explicit, stating that 'la commission émet l'avis que le Gouvernement adopte une série de plans types.' AA/PD 1534, Comm0ion pour l'étude du plan décennal dans le domaine médical, 25 May, 1948. On the Commission, see also 3/M.

157. AA/3DG 984, *Congrès Colonial belge, Section d'hygiène et démographie,* 1947.

158. A publicly official version of this diagram was published by state doctor Rodhain (1948, p. 1465).
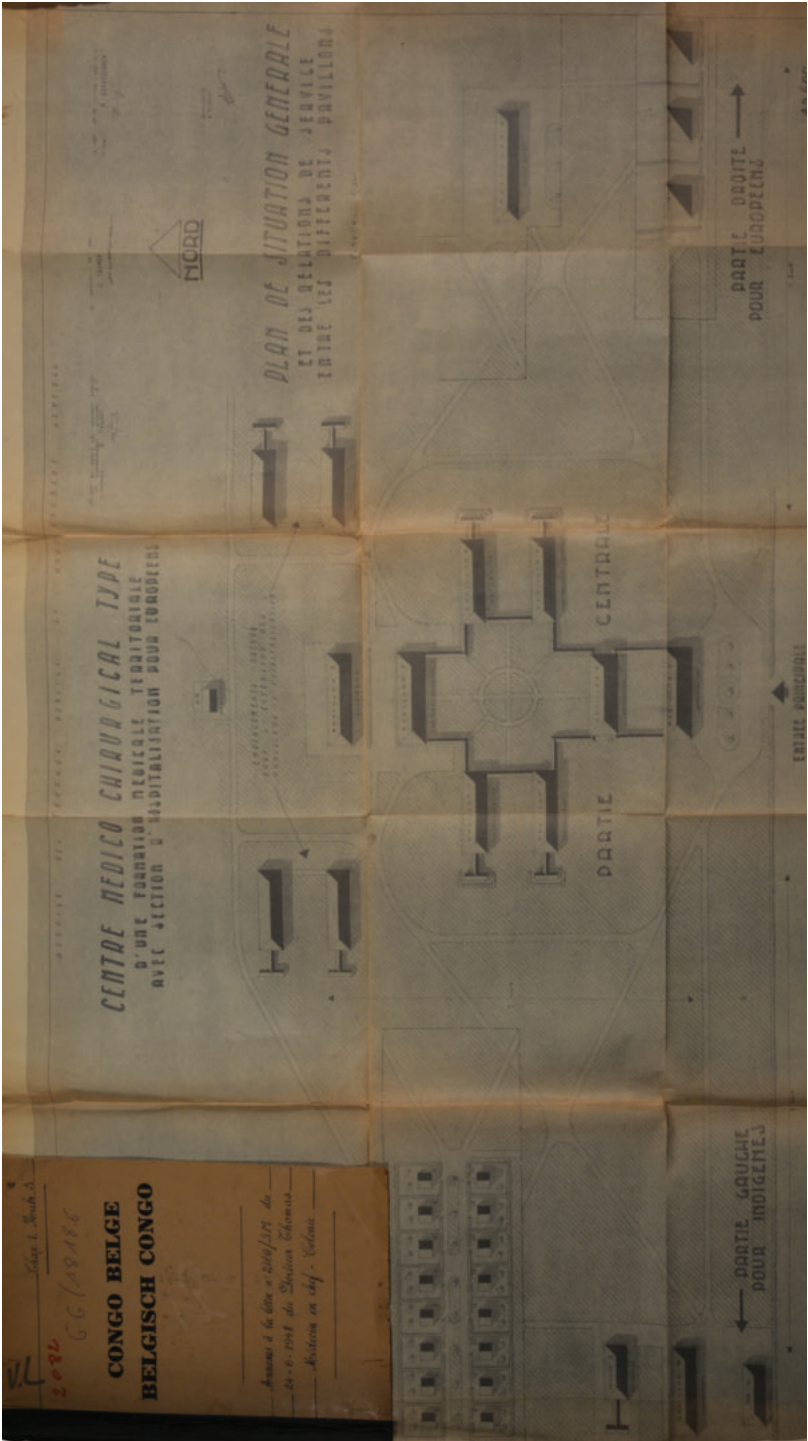
Image 22 . Transportable binder of type plans
1949, AA/GG 18186.

doctors, and a luxurious ward exclusively destined for European patients. The African parts were comprised of housing for the African staff, as well as a dispensary and two *caravansérails*. These latter two buildings functioned as the connecting hub between the rural hospital and the larger hierarchic network of hospital infrastructure: Congolese patients that had been referred by satellite dispensaries, or that would have to move to a hierarchically higher-ranked, better equipped medical facility could spend the night at the *caravansérail*, while newly arrived patients were diagnosed in the dispensary, after which they were referred to the correct pavilion. As later testimonies of Belgian colonial doctors suggest, the presence of a second *caravansérail*, likely offered a space for African family members joining their patients to spend the night as well as cook for their relatives.[159] If this was the case, this once again reveals how African agency and precolonial African healthcare practices had now not only shaped the hybrid governance of particular hospitals such as the *Hôpital des Noirs* in Léopoldville, but had now even impacted hospital design at a systemic level through type-plans that had to be reiterated across the colony.

Although the type-plan would be used for almost a hundred hospitals in Congo and thus played a central role in the development of the medical model colony, this design was never the object of any long discussion. While this may indicate a hiatus in the colonial archives, it seems more likely that there was just little ink spilled on the development of these plans.[160] This lack of correspondence makes it all the harder to discern in hindsight what the true motives or government rationalities behind these plans were. Combined in an easily transportable binder that facilitated its circulation along the chain of command, these plans at first glance seem designed as a clear 'immutable' 'technology of distance.'[161] Drawn without any mention of the future context or surroundings, these spatial techniques of governmentality seem to reflect the way the central authorities believed that the same template of rural hospitals and satellite dispensaries could be invariably reiterated across a territory as vast as Western Europe. Although these hospitals would be realized at numerous, different locations, their varying surroundings were deemed irrelevant and rural Congo was reduced to a climatically and socio-culturally isotropic stretch. On this blank canvas, it seems, the 'Bula Matari' could easily imprint and reuse the same type-plans regardless of the context. Such flattening and emptying of the African interior has a longer history. It was this discursive 'tabula rasa' that paved the way for the Scramble of Africa, as Western discourses and propaganda created the image of an empty

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159. See in particular the testimony of Dr. Willy Van Den Haute: https://www.memoiresducongo.be/oeuvre-medicale-au-congo-belge-et-au-ruanda-urundi/ [accessed 20 April, 2021]. These testimonies should nonetheless be critically approached, since the organization *Mémoires du Congo* has an explicitly apologetic agenda and the testimonies of Belgians formerly active in the colony serve this agenda.

160. As multiple copies of documents on other issues of the Ten-Year Plan have been minutely stored at several archival locations, it seems strange that if an extensive discussion on these type-plans did take place during this well-documented decade, no archival traces would exist.

161. Chang (2016, pp. 215-257); Latour (2003).

continent that was 'ripe for settlement and colonisation.'[162] Now, again, this idea of a blank, homogeneous rural hinterland implicitly resurged in type-plans and diagrams, simultaneously reflecting and facilitating the belief in centralized government plans that allowed to efficiently realize a medical model colony and legitimize Belgian colonial rule.

Yet, even though the drawing conventions of these plans and diagrams suggest an autocratic, top-down use of type-plans as rigid models, it seems unlikely that all central policymakers still blindly believed in the effectiveness of such a modus operandi. The Medical Program's main protagonists, Dr. Duren and Dr. Thomas, were both seasoned officers who looked back at a long career of experience in the field – Steinmetz refers to local know-how or 'ethnographic sagacity' as a crucial resource within the 'social field' of colonial administrations.[163] Without a doubt, they were still firm believers of a top-down Medical Program which deployed type-plans as powerful government models to construct rural hospitals from the distant capital. Nevertheless, they seem to have built in some flexibility in the way these plans could be used. The *Plan d'Ensemble* not only outlined the general lay-out of the hospital, but also attributed a particular identification code to each depicted pavilion. In its top corner, an inventory listed the various pavilions, which roughly corresponded with the detailed pavilion plans and their identification codes (Image 23). As such, while the *Plan d'Ensemble* clearly depicted a fixed lay-out which the central authorities considered best practice, it could also serve as a modular catalogue of a set of detailed type-plans that could be assembled and reorganized if needed. It allowed local policymakers to browse through the binder and prioritize the construction of wards in response to local healthcare issues, provincial shortages of budget, and adapt these modules in response to climate or site-specific issues of terrain, vegetation, or road infrastructure.

That Dr. Duren and Thomas had consciously accounted for, and perhaps even facilitated such a flexible use of type-plans also becomes clear from the design itself. As a 'technology of distance' and the most widely used construction plans of the colonial period, it is striking that these type-plans did not follow the latest technoscientific knowledge on hospital planning that was circulating in international publications at the time – even though these insights were well known by figures such as Dr. Duren.[164] Rather, the plans are clearly inspired by the innate set of design principles that had come to exist over the years of building

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162. In an earlier article published in *Planning Perspectives*, we have theorized this belief of rural Africa as a vast emptiness more extensively, referring to the legal concept of the 'Terra Nullius' that played a key role in the Scramble for Africa. See De Nys-Ketels, Heindryckx, Lagae, and Beeckmans (2019), as well as Wylie (2007); Fisch (1988, p. 358); Fitzmaurice (2014, p. 286); Harris (2004, p. 165).

163. Steinmetz (2008, p. 592).

164. Other officials that were influential for Belgian Congo's hospital construction were most likely also aware of these technoscientific insights. Architects specialized in hospital design in the colony such as F. D'Hondt and Réné Schmit may have come into contact with the latest hospital design principles through publications such as *L'architecture d'Aujourdhui*, while *Ingénieur en chef* Dangotte stood in close contact with Atkinson. This will be discussed in more detail in 3/A.
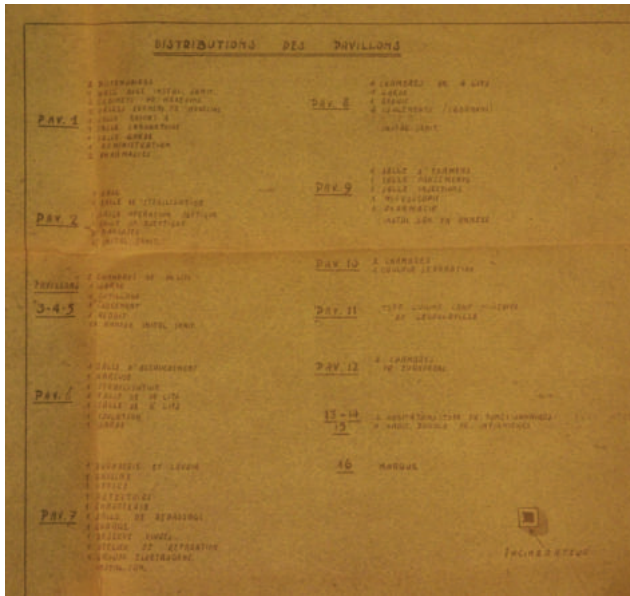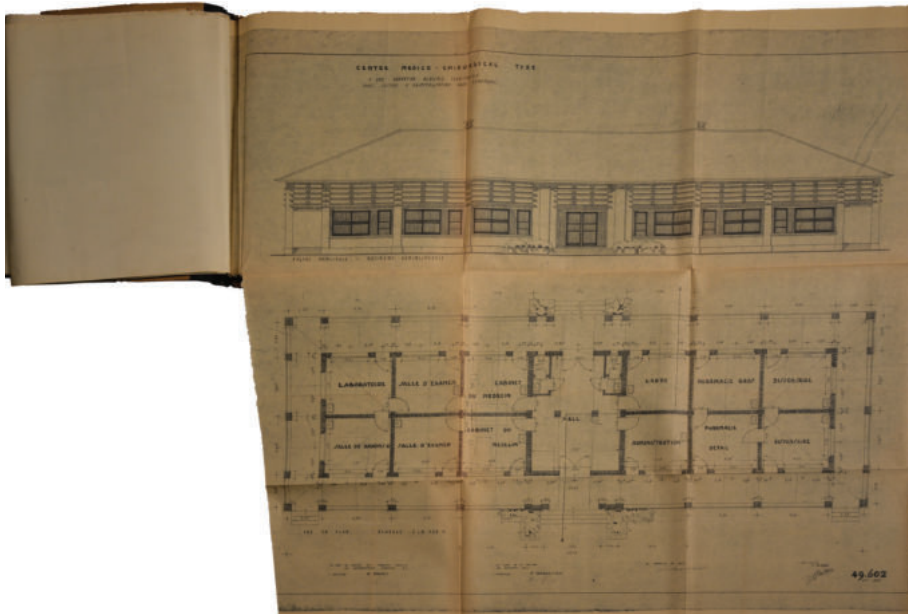
Image 23

An overview of the various pavilions of the C.M.C. was included in the top corner of the type-plans *Plan d'ensemble* (hidden under the cardboard cover of the booklet depicted in Image 22). The binder of type-plans contained detailed plans for each of these pavilions, and all these plans included an identification code. This facilitated easy communication about these plans, as well as a flexible, modular use of the type-plans in response to local issues.

AA/GG 18186.

hospital architecture in the colony. The sketch is particularly reminiscent of the *Hôpitaux pour Indigènes – Plan d'ensemble Type* that the Katangese Public Works Services had sought to deploy during the interbellum (Image 24). That precisely these plans were reused in the post-war period is remarkable, considering that *ingénieur en chef* Itten had explicitly rejected type-plans as a viable approach for colonial hospital construction. In 1929, he had stated that no common accord could be reached regarding the ideal plan for a colonial hospital, and that the use of standardized plans would prevent the necessary improvement of the still imperfect colonial hospital designs of the interbellum.[165] Nevertheless, despite Itten's warnings, the same basic design principles were again recycled in the post-war period – with barely any (formal) adjustments for that matter.

But rather than a prime example of what Peter Scriver has described as the '"cage" of bureaucratic forms,' in which old design principles become institutionalized and restrictive, the fact that these old type-plans were again reused under the Ten-Year Plan rather illustrates the particular resilience of these pavilion typology plans. Although these interwar plans had never been truly standardized under the *Plan Franck*, the plans for the wards of 36 beds had been recycled across Congo, confirming the perks of a modular pavilion typology design. With an almost unchanged general lay-out, but with an elaborated system of identification codes and detailed plans for each specific ward, the binder of type-plan of the Ten-Year Plan took this modularity to a new level. And although central policymakers such as Dr. Duren and Dr. Thomas may not have initially understood how valuable this flexibility was, it was precisely this modularity that would allow local policymakers to tailor the design to local conditions, and prove vital to the construction of the Ten-Year Plan's vast network of healthcare infrastructure.

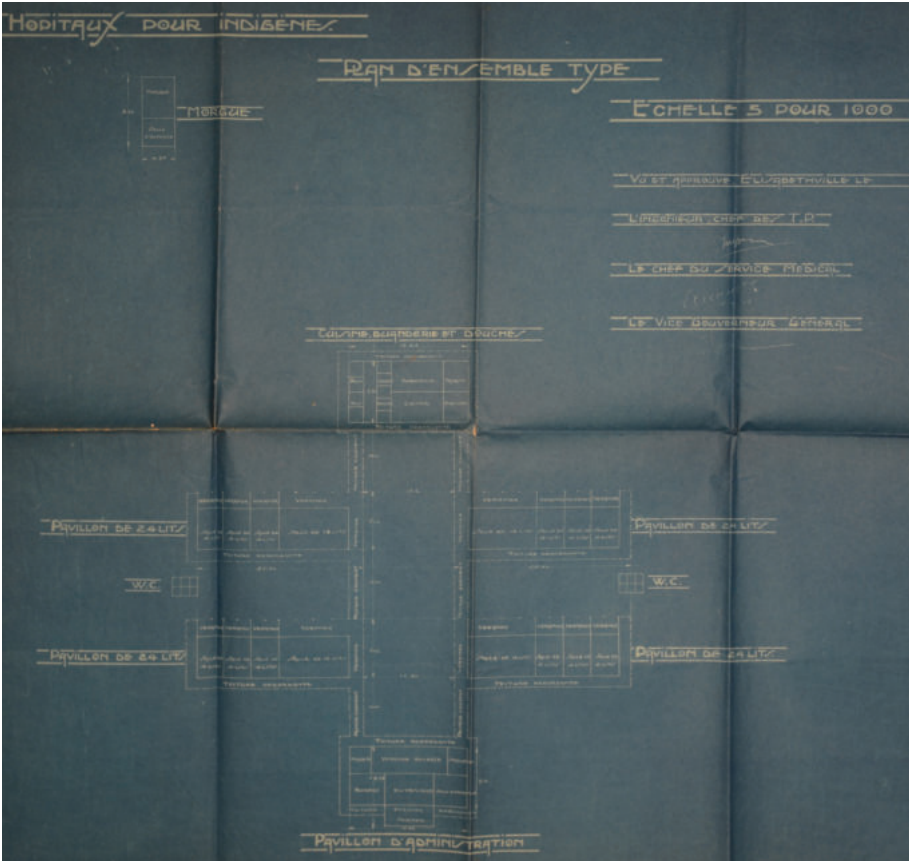165. AA/GG 18186 Note from *Ingénieur en Chef* Itten to *Gouverneur Général* Auguste Tilkens, 11 September 1929.
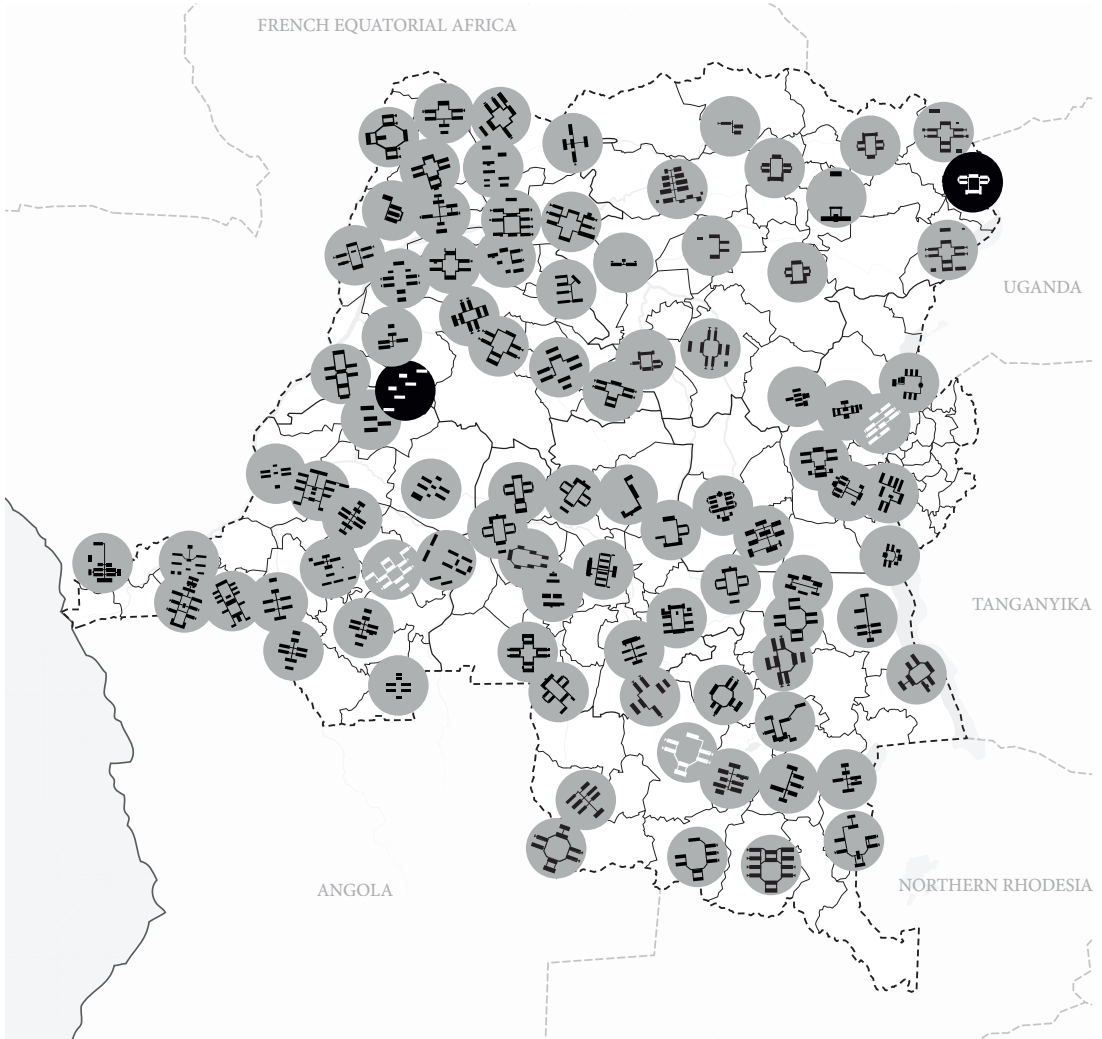
Image 24 . *Hôpitaux pour Indigènes, Plan type d'ensemble*

This old type-plan of the Provincial Public Works Service of the Katanga province likely served as a direct inspiration for Dr. Duren's sketch for a type-plan for the Ten-Year Plan. See also 2/L.

1923, AA/GG 15920.

Image 25 . Rural hospitals realized or extended under the Ten-Year Plan

The map illustrates how the same type-plan was reused across the vast colonial territory, but how its footprint greatly varied: the various hospitals differed in orientation, size, and overall spatial lay-out. As discussed below, these adaptations were in response to local conditions of climate, site, demographics, healthcare issues, or budget.
Kiri and Aru, the two case-studies discussed below, are indicated in black, while Kikwit, Kamina and Kirotshe, the rural hospitals depicted in figure 5, are highlighted by white footprints.

See Annex 1 on an extensive explanation concerning the mapping process and used sources behind this and the following mappings.

Provincialized type-plans

That type-plans were used as flexible government tools to respond to local conditions, rather than as rigid models, immediately becomes clear when inspecting our mapping of rural hospital infrastructure realized under the Ten-Year Plan. The maping not only confirms the impressive built production that sources such as *Investir, c'est prospérer* or Dr. Duren's *Carte des établissements médicaux importants* mentioned. By depicting the varying footprints of the rural hospitals constructed under the Ten-Year Plan, it also shows how the type-plans were effectively deployed across the colonial territory, but nonetheless underwent multiple and widely varying local adaptations depending on the location (Image 25).

Already when the binder of type-plans was distributed from the central Public Works Service in Léopoldville to its various provincial branches, important local adjustments were being made. In order to dispatch the binder to the multiple districts and *territoires* where a rural hospital was to be constructed, local state architects had to repeatedly copy these type-plans. Analysing these duplicates shows that copying in itself was not a trivial task. The two most frequently used copying techniques at the time in the colonial administration – blueprints and diazo or whiteprint copying – both meant that administrators had to position the original on top of the duplicate on which it would be imprinted. The original did not have to be a complete plan, but could also be a collage of various source documents. To prepare a correct blueprint for the provincial database, architects and administrators would thus cut and reshuffle parts of the plan, adapting its lay-out and identification code to the inventory system used in provincial archives. Architects were working with, reinterpreting and rethinking these type-plans. This sometimes resulted in small adjustments for financial reasons: the Equateur province removed costly fluorescent tubes in the barzas, in some hospitals in Kasaï and Orientale the sanitary facilities of several pavilions were joined together, and the Katanga Public Works Service decided to shorten the corridors connecting the various pavilions, lowering the overall costs.

The act of copying, although seemingly mundane, may have also spurred local architects to make more important design adjustments. Local state architects often added an architectural language distinct to the Provincial Public Works Service (Image 26). The architects of the Katangese administration, for instance, added natural stone cladding with white seams to the columns of the *barza*, creating more expressive vertical elements that stood out against the backdrop of the relatively neutral façade.[166] Orientale's architects used a similar stonework finish, but instead of decorating the columns, they applied it to the building's raised foundation. In the façade itself, the architects turned the necessary ventilation shafts into architectonic elements that pierced the façade's uniformity.

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166. Natural stone cladding became a stylistic leitmotiv in Belgian Congo's post-war architecture.
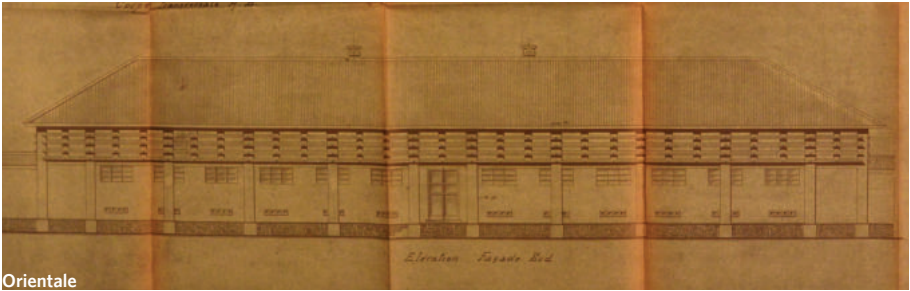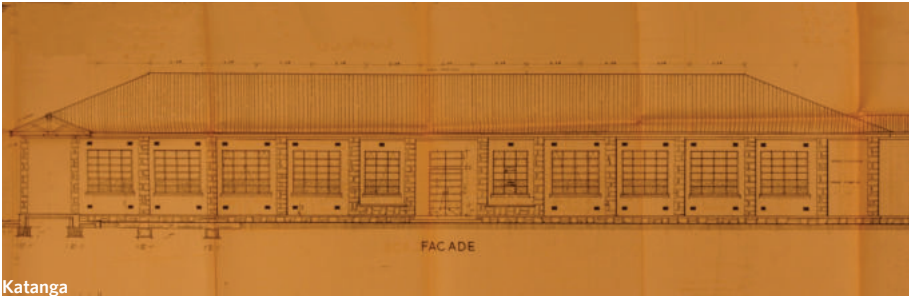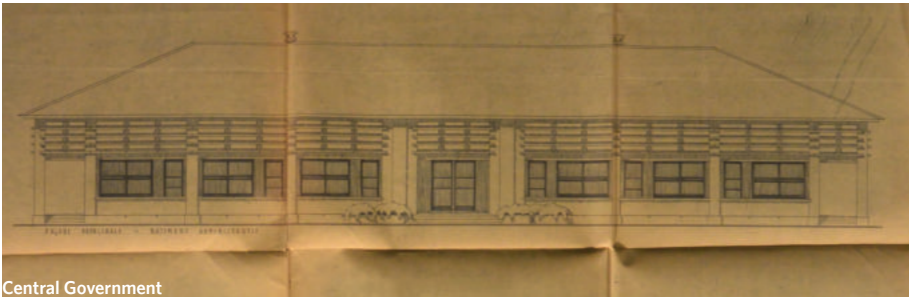
Image 26

When receiving the binder of type-plans, provincial departments often carried out small design adustments, as this comparison of the central, Katangese, and Orientale façade design of the pavilions illustrate.

AA/GG 18186; AA/GG 960; AA/GG 936.

The most important adjustments, however, were made in response to the local climate (Image 27). Almost immediately after Flahou had elaborated the bundle of type-plans, *médecin en chef* Dr. Thomas suggested to tailor medical infrastructure to the regional climate:[167]

> *Dans les régions chaudes du Congo, celles qui n'ont pas bonne réputation auprès du grand public, les demeures devraient être particulièrement soignées et largement conçues, et des sacrifices supplémentaires devraient être consentis, dans l'ordre du cubage et de la ventilation, pour les rendre plus confortables et attrayantes.*

In the cool Katanga province, for instance, the local state architect removed the original sunshades surrounding the verandas and greatly reduced the ventilation shafts, respectively allowing additional heat capture by the sun and minimizing heat losses. In contrast, in the hot and humid Equator province, the architect of the Public Works Service recycled earlier climatic solutions from the three *Cliniques Reine Elisabeth* constructed during the interbellum. He elevated the main roof and subdivided it in two, extending and lowering the verandas as sun-blocking elements. Additionally, he enlarged the original ventilation shafts, which, combined with large ventilating dormers in the main roof were to create circulatory airflows to cool down the interior wards. Initially, the provincial Public Works Services carried out these design adjustments in ways reminiscent to the ad-hoc adaptations of plans of the Interbellum. Using crayons, the provincial architects communicated to lower-ranked officials which plans to use, and which adaptations had been made. They mass-copied new type-plans on small-formatted addenda to easily sent these to the various *agents de territoire* across the province. These early, somewhat improvised adjustments, however, were quickly institutionalized into official provincialized type-plans, which were properly stored within the archives of the each Provincial Public Works Service from where they could be easily re-consulted.

After the adjustments of the provincial branches, these provincialized type-plans were sent from the provincial capital to the various remote territory seats where rural hospitals had been planned. More often than not, however, the *Plan d'Ensemble* of the type-plans did not fit the actual hospital site. The local government personnel, and the contractors responsible for the construction of the rural hospitals had to make do, but the modular type-plans offered an easy and flexible tool to do so. Browsing through the binder of type-plans, they could simply select and reshuffle the modular pavilions on the spot, adapting it to site-specific constraints. Local agents often ignored central guidelines on east-west orientation and instead aligned pavilions and corridors to the existing surrounding roads, expand the hospital because of local demographics, realigned wards to hilly terrain, shrank internal courtyards due to shortages of space, or cleverly built around termite hills or baobabs (Image 28).

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167. AA/H 4470, Note from *Médecin en Chef* Dr. Thomas to *Gouverneur Général* Jungers, 18 November 1947.
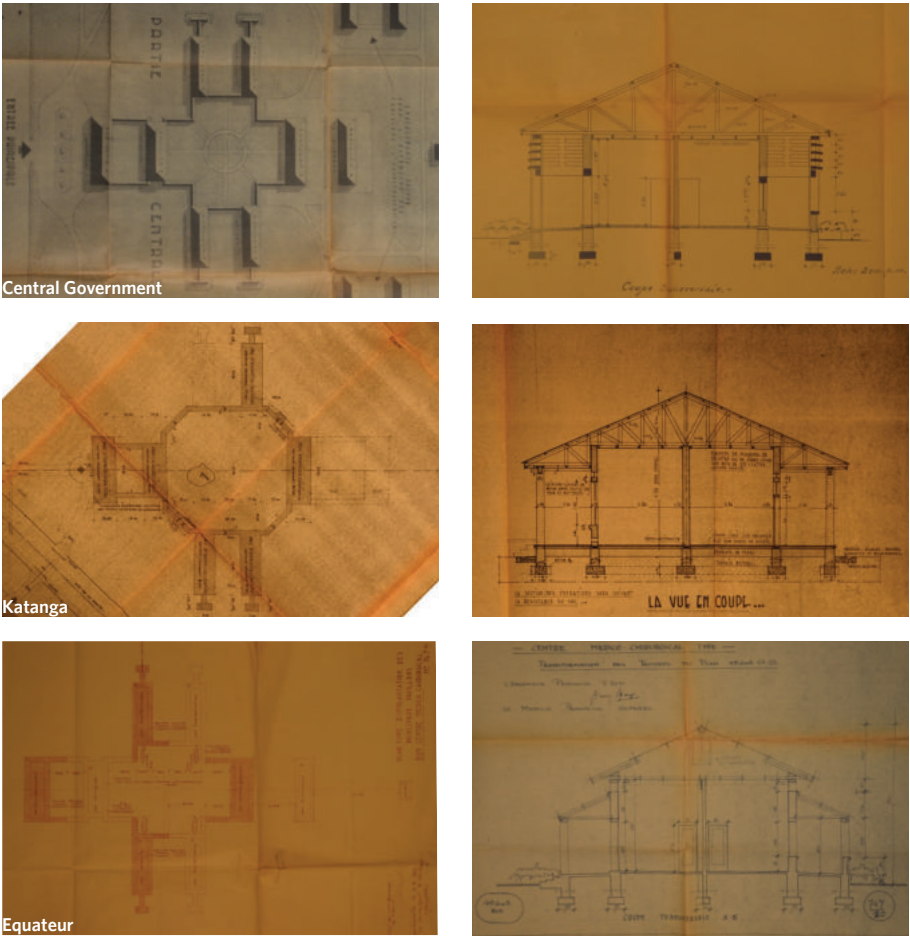
Image 27

Excerpts of *Plans d'ensemble* and sections from the central, Katangese and Orientale provincial Public Works Services, depicting the various financial, but especially climatological adjustments. Notice in particular the shortened corridors in the Katanga plan and the subdivision for additional ventilation in the Equateur section.

AA/GG 18186; AA/GG 960; AA/GG 16630.

Image 28

Examples of on the ground adaptations of type-plans. In Kikwit, a city situated in a densely populated area, the modular type-plans, reoriented to the existing street grid, allowed multiple expansions over various construction phases; in Kamina, the Katangese hospital design was constructed around existing termite hills; in Kirotshe, the hilly terrain of the Kivu region and the steep hospital site necessitated an adapted *Plan d'ensemble*, as well as extensive ground works and complex foundations.

AA/3DG 549; AA/GG 12395. Data aerial views: Google, DigitalGlobe. Image Kamina: https://www.caid.cd/wp-content/gallery/territoire-de-kamina/1.JPG [accessed: April 4, 2019].

The perks of these modular type-plans went even beyond the possibility for local agents to respond to site-specific conditions. It also allowed them to react to local healthcare challenges in unforeseen ways, as analysis of the table on Equateur's 'Situation des Constructions C.M.C. au 1-9-1954' revealed (Image 29). At first glance, it seems yet another mundane and insignificant document within the immense *paperasserie* of the colonial government. However, as a crucial cogwheel in the government's everyday *modus operandi*, the table exemplifies how bureaucratic documents were vital tools for the colonial government to materialize its medical model colony, and were 'intricate technologies of rule in themselves.'[168] The table was used by local policymakers to track and report on the ongoing process of hospital construction in the Equator province. It lists all the various pavilions – administration*,* surgery, hospitalization, isolation, maternity care, etc.. – included in the binder, using similar identification codes. The header of the table lists the different localities in the province where healthcare infrastructure was under construction, or being planned. For each locality, three sub-columns documented whether the pavilion had been completed, still being built, or when its future construction would commence. It is this precise registration of the construction process for each locality in this archival document that allowed to accurately chart the chronological development of the Medical Program in the Equator province (Image 30).

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168. Stoler (2002, p. 87).

Image 29
Situation des Constructions C.M.C. au 1–9–1954.

Through this seemingly mundane document, Equateur's provincial Public Works Service could track and report the progress of the Medical Program in the province. This document allowed to chronologically trace back and map the various construction phases of the C.M.C.s, revealing how local administrators prioritized maternity wards to tackle the local healthcare challenges of *dénatalité.*

AA/GG 12889.

This chronological mapping is telling in a number of ways.[169] First, it shows that although there was a clearly defined *Plan d'Ensemble* for the rural C.M.C.s, these were almost never realized in a single building phase. Rather, these type hospitals were built over different consecutive construction campaigns, sometimes with intervals of several years in between. Similar to a modular assembly guide that consists of separate pavilions as its main building blocks, the binder of type-plans of course facilitated such phased construction, which meant the building costs could also be divided over several fiscal years.[170]

Second, it confirms how the published version of the Ten-Year Plan was rather state propaganda than an actual policy program, an argument already made in the first section of this chapter. During the preparation of the Plan, the Equator's *Gouvernement Provincial* had initially applied for the funding of eleven rural hospitals, but the provincial branch and the central authorities would eventually not agree on this number. Two years after the official launch of the Ten-Year Plan, the *Gouvernement Provincial* decided to take a different approach. Instead of centralizing healthcare infrastructure in only eleven localities in a province larger than Germany, provincial policymakers added ten additional, smaller outposts, which meant rural hospitals were no longer exclusively built in the province's

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169. For a more extensive version of the argument that follows, see De Nys-Ketels, Lagae, Heindryckx, and Beeckmans (2017).

170. Which of course made the yearly voting for the *Budget Extraordinaire* in the Belgian Chamber of Representatives easier for the Ministry of Colonies.

1947-1950

Coquilhatville
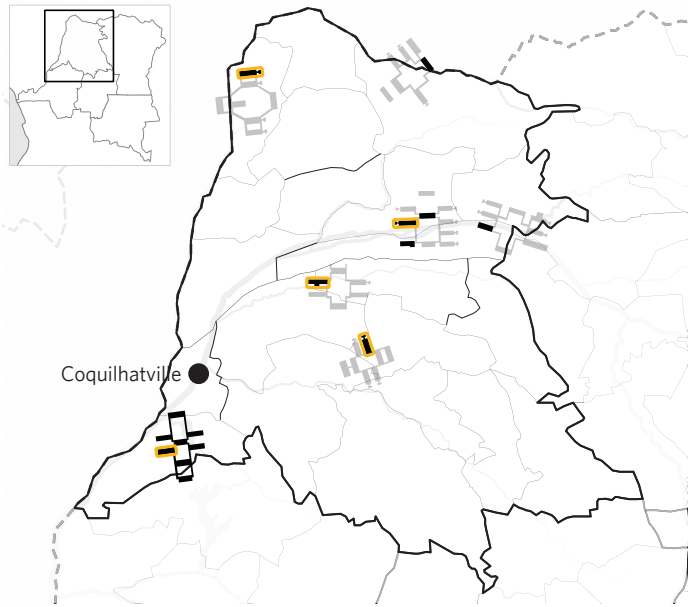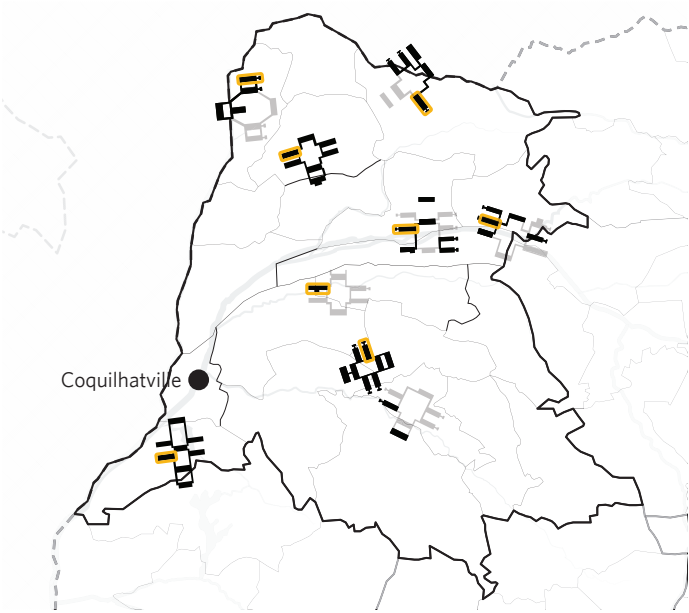
1951-1953

1954-55
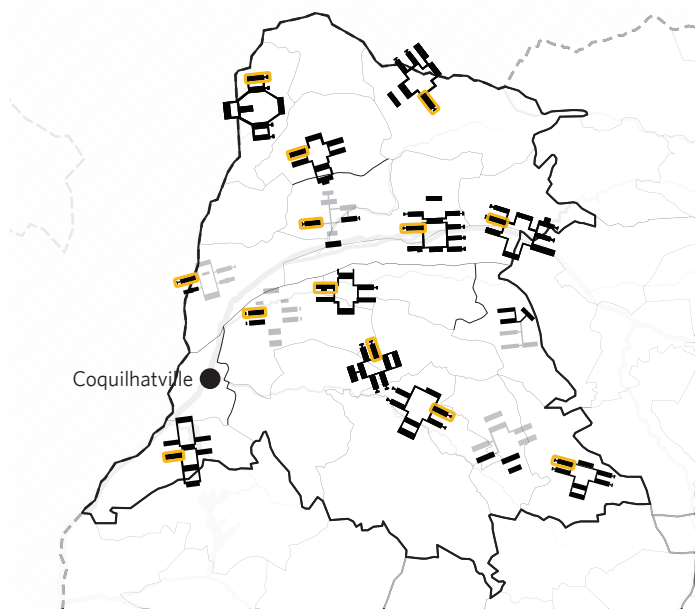
1956-1960
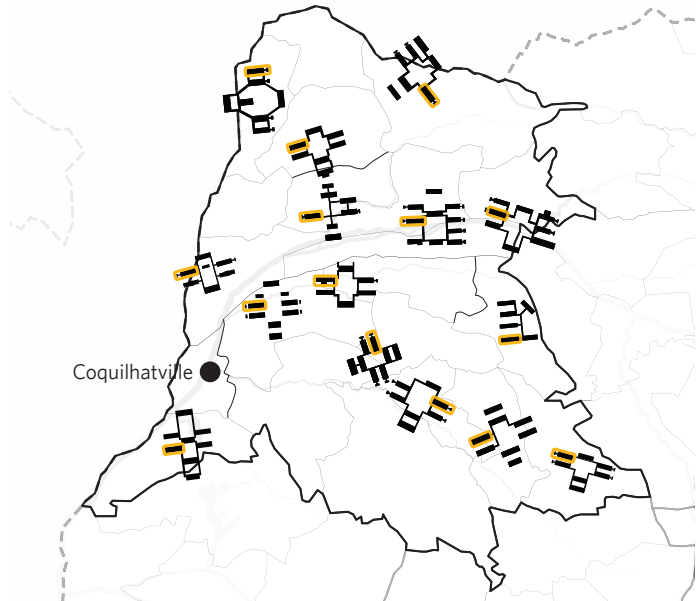
Image 30 . Consecutive construction phases of Equateur's *réseau hospitalier*

Based on the table of the *Situation des Constructions C.M.C. au 1–9–1954* and additional other sources, a chronological mapping was conducted of the various building phases of Equateur's Medical Program. Out of the fourteen hospitals of which the footprints could be defined, nine included or started with the maternity in the first construction phase (indicated in yellow), illustrating how the modular binder of type-plans allowed local administrators to tackle the regional healthcare issue of depopulation by prioritizing the construction of particular wards over others.

Illustration by author based on AA/GG 12889, multiple *Rapports Annuels* and earlier analysis of footprints of C.M.C.s.

administrative seats. In the Equateur, the original rigor of the Ten-Year Plan's Medical Program, based on the administrative hierarchical subdivision of the colony in provinces, districts, and territories, was already revised two years after its publication.

Third, however, it might not be a coincidence that this happened precisely in the Equator, while other provincial governments adhered much more strictly to this administrative subdivision – the construction of the Kiri hospital in the Léopoldville province described below will be a case in point. At the time, colonial policymakers were increasingly concerned about the 'dépopulation déplorable' of the Equator region, especially amongst the local Mongo-people.[171] Fears for venereal diseases, African immorality, and their effects on the Congolese 'dénatalité' already reigned since the 1920s, yet became even more urgent after the war. That it was particularly in the Equator province that these major declines in Congolese birth rates occurred, was not a coincidence. As historian Nancy Hunt illustrated how the origin of the region's alarming infertility can be traced back to 'the atrocities of the "red rubber" period of violent, coerced labor and woman hostages' that occurred in this part of the Congo Free State.[172] Plaguing the rural population across the Equateur, this urgent demographic issue, which also threatened Congolese labor productivity, may explain why the provincial government decided to revise their initial proposal and instead implement a more fine-grained, spread out hospital network that brought state healthcare even closer to the most remote villages of the province.

But even during the effective construction of these medical outposts, local policymakers attempted to tackle the problem of depopulation. As the chronological mapping based on the 'Situation des Constructions C.M.C. au 1-9-1954' shows, construction of most hospitals in the region started with the realization of the maternity wards, often even before a general dispensary or a surgical pavilion had been built.[173] Such strategic prioritization of hospital construction was only possible thanks to the modular binder. If type-plans had been originally conceived as rigid 'technologies of distance' that facilitated top-down planning and disregarded local realities, the way they were actually deployed shows a rather different governmentality practice. The binder functioned almost like a modular menu, through which provincial branches and local agents could browse, select which pavilions were the most strategic to build, and adapt them and the overall *Plan d'ensemble* to local conditions and contingencies, be it the regional climate, site-specific challenges, or local healthcare issues.

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171. Van der Kerken (1944, p. 768); Van Wing (1945, p. 599).

172. Hunt (1999, p. 243). See also her more recent book: Hunt (2016, pp. 167-236).

173. While no general archival sources have been found that explicitly mention such a policy, this seems hardly coincidental: Similar documents have been found that also allow to chronologically trace the implementation of the Medical Program in Katanga, a province that did not face such urgent demographic issues and where maternity care was, as a consequence, not prioritized. See AA/H 4570, *Plan Quinquennal Province du Katanga, Service Médical*, 1951-1956.
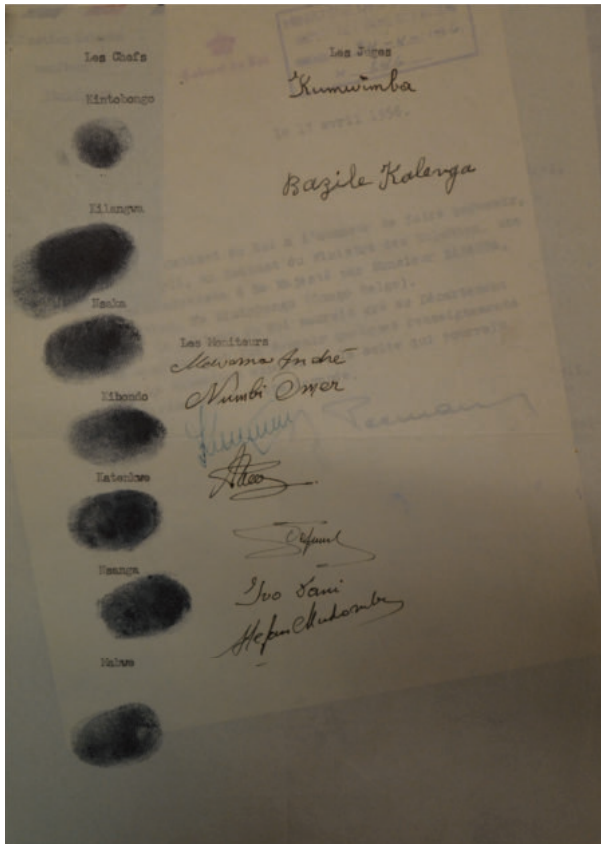
Image 31
Demande d'un dispensaire à Kintobongo

This application from multiple local *Chefs* to the royal cabinet, in order to install a dispensary in Kintobongo, shows that Congolese inhabitants did try to shape the local *réseau hospitalier.* Their calls, however, remained unheard, confirming how the colonized still had little say in the planning of hospital infrastructure, even though this infrastructure was aimed at Congolese patients.

AA/H 4566.

Yet, while flexible type-plans offered extensive and unseen agency to local officials, the actors included in these local processes of decision-making remained exclusively European, even if these infrastructures mainly served African patients. It is of course hard to gage to what extent negotiations between local European authorities and local African populations may have shaped the *réseau hospitalier*, as traces of such on the ground politics are unlikely to have been stored in the archives. Nevertheless, the scarce archival clues I did find suggest that African voices were often silenced or remained unheard. Several villages had, for instance, petitioned for the construction of a dispensary around their villages in Katanga. That they filed their application directly to the royal cabinet in Brussels, after repeated yet unfruitful requests to the local authorities, suggests that these African subjects were well-aware of the power structures of the Belgian colonial apparatus. Nevertheless, even if well-founded – their region indeed lacked medical infrastructure – their requests proved in vain and remained unanswered (Image 31).[174]

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174. AA/H 4566, Demande d'un dispensaire à Kintobongo, Letter from Chefs Coutumiers Kuwimba, Kalenga, Mewoma, Numbi and Mukombe to the royal cabinet in Brussels, 15 March 1956.

Pragmatic economies of plans and paper

With these provincialized type-plans operating as powerful, flexible tools to construct locally adapted hospital infrastructure, the implementation of the Medical Program made quick headway. The recruitment of colonial doctors turned out much less of a problem than during the interwar years, and especially when the Medical Service received a separate 'cellule Travaux Publics,' the realization of rural hospitals advanced rapidly.[175] Ironically, when the Medical Service reported this progress to the *Secrétariat du Plan Décennal*, its members were not pleased at all. The 'démarrage rapide' of the Medical Program, they feared, would bring about increasing recurring costs, and would further undermine the financial calculations behind the plan.[176]

Already during the first two years of implementation, the Secretariat realized the financial foundations of the Ten-Year Plan had been shaky to begin with. As inflation plagued the colonial economy, the situation became even worse than expected. The prices of construction materials soared, and by 1954, the average cost of a C.M.C., which had been estimated at around 7 million francs, had doubled.[177] These budgetary problems of the Medical Program were only worsened by the confusion regarding the role of the *Fonds du Bien-Etre Indigène*. For the first years of the Ten-Year Plan, the FBEI had indeed functioned as an umbrella organization subsidizing welfare-related investments in rural Congo to multiple non-state organizations. The FBEI received numerous requests, from organizations such as the FOREAMI, the *Oeuvre Reine Astrid pour la Mère et l'Enfant Indigène*, or the *Aide Médicale aux Missions*, a religious organization that also constructed and managed several hospitals in Congo.[178] Quickly, however, the FBEI decided to focus only on particular 'zones d'action' through a 'politique de choc,' an approach clearly based on the earlier experiences of the FOREAMI.[179] This meant the FBEI became much more restrictive in granting the requests of applying organizations, and the Government was now forced to cover these unforeseen additional costs.[180]

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175. AA/H 4570, Note from Dr. Duren to *Administrateur Général des Colonies*, 21 September, 1950; AA/H 4570, Note on *personnel technique à attacher au Service Médical* for *Secrétariat du Plan Décennal*, 10 March, 1951.

176. AA/H 4570, Note from *Administrateur Général des Colonies* to Dr. Duren, 4 September 1950.

177. Ibid.; H 4570, Note from Dr. Kivits to *Administrateur Général des Colonies*, 24 February, 1954.

178. Even administrators from *Circonscriptions Indigènes*, the lowest branch of administrative subdivision in rural Congo, who had their own budget, asked for support. See AA/PD 1534, Letter from *Administrateur de Territoire* of Kashiobwe to FBEI, 8 May, 1955; AA/H 4520, *Participation à l'exécution du Plan Décennal de la Colonie*, multiple years.

179. AA/H 4570, *Mémorandum du Ministre*, 18 May, 1948.

180. As Dr. Duren explained to the Minister, for instance: 'L'intervention du gouvernement dans la construction d'hôpitaux autres que les formations gouvernementales proprement dites a été omise dans le Plan Décennal. [...] Le FBEI avait à ses débuts et au moment de l'élaboration du plan décennal consenti à financer ces constructions [...] Plus tard, le FBEI a changé sa ligne de conduite.' AA/H 4570, Letter from Dr. Duren to *Ministre des Colonies*, 20 March, 1952.

To make matters worse, the policy shift of the FBEI also had another consequence. During its founding, the FBEI had likely agreed to co-fund almost half of the planned C.M.C.s, and the colonial government had based its budgetary calculations of the Medical Program on this presumed contribution.[181] The narrowed focus on 'zones d'action' led the FBEI to revoke this promised contribution, and decide 'qu'il se réserve la faculté d'examiner dans chaque cas d'espèces l'utilité et l'opportunité de construire un centre médico-chirurgical déterminé dans une de ces zones.'[182] Although the FBEI would still subsidize the realization of several C.M.C.s, the government could no longer count on it, and had to include their costs in their official budgets.

These financial issues extended far beyond the Medical Program, and eventually caused the government to completely revise the budget of the Ten-Year Plan.[183] New international loans were acquired, and while the overall budget almost doubled, the budget for the Medical Program was increased by a third.[184] Despite this additional financial breathing room, the soaring material expenses and the confusion about the responsibilities of the FBEI still constrained hospital construction in rural Congo. In a preparatory 'esquisse d'une révision du Plan Décennal,' the Secretariat demanded that the Medical Service reduce the 'coût unitaire' of the rural hospitals by only constructing the 'pavillons strictement indispensables.'[185] If this was a general policy formulated by the central authorities, it was still the responsibility of local administrators to make do with the continuously changing budgetary restrictions imposed from above. The flexible binder of type-plans again immensely facilitated this task. It allowed to easily scratch off the least vital wards, without necessarily compromising the overall functioning of the hospital. The European pavilion was the often the first to be left out. Although the central authorities had included these in the *Plan d'Ensemble*, local agents quickly realized they were rather useless in practice. Europeans living in rural Congo rarely frequented local C.M.C.s, as the local doctor would either come directly to their homes, or they would immediately drive or fly to better equipped hospitals in the closest city. Other services that were left out were more crucial. The 'annexes sanitaires' and the 'buanderie' were often only realized in a later construction phase, or sometimes never at all. While such local policy

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181. Why likely? The archival material concerning the FBEI is rather unclear, with the colonial authorities often making claims opposite to those of the FBEI. While the president of the FBEI later denied that the FBEI had ever explicitly agreed to financially support the construction of C.M.C.s, in 1948, Dr. Duren had noted very exact budgetary contributions the FBEI had allegedly promised to provide. Even if the FBEI had never agreed to these contributions, they were still inscribed in the Ten-Year Plan's budget, and these miscalculations would cause serious financial problems. AA/H 4570, Note from Dr. Duren on *Plan Décennal: Part assurée par le FBEI*, January, 1949.

182. AA/H 4521, Letter from *Président du FBEI,* Ermens, to *Gouverneur Général,* 18 January, 1950.

183. See Ministère des Colonies (1954); Vanthemsche (1994, pp. 59-67) on the mid-term revision of the Plan.

184. While the general budget grew from around 25 to 48 billion francs, the budget for the Medical Program increased only from around 2 to 3 billion. Ministère des Colonies (1960, p. 6); Wigny (1949, pp. 56-61)

185. H 4570, *Esquisse d'une révision du Plan Décennal*, 7 November, 1953.

decisions perhaps made sense, considering that local administrators had to make do with the limited budget available, they must have produced horrendously unhygienic scenes that stood in stark contrast with the widespread images of the medical model colony. Surely, prioritizing wards and dormitories over sanitary services increased the crude number of beds available in Belgian Congo – the most widely advertised statistic boasted by the colonial authorities to boost their international medical reputation – but the healthcare quality offered in Belgian Congo undoubtedly suffered from such prioritization.[186]

While local administrators deployed the modularity of type-plans to scratch off unnecessary pavilions and face local budgetary problems, the financial issues of the Ten-Year Plan had its most profound impact on the government's more general workflow of provincialized type-plans. Budgetary restraints gave rise to internal bureaucratic economies of plans and paper, which, similar to architectural historian Tania Sengupta's work on 'papered spaces' and 'clerical practices' in colonial India, 'question our material and spatial imagination of the colonial state as an all-powerful, coherent entity.'[187] Similar to the interwar practices of recycling and adapting plans in circulation, provincialized type-plans circulated and were exchanged between various administrative branches of the colonial government, often moving against the top-down chain of command, and even in between the state and parastatal organizations. Now, however, such modus operandi happened at an unseen scale, and quickly morphed from improvised practices in response to budgetary and material shortages – paper became a scarce resource during the 1950s – to an institutionalized system of increasingly uniform databases and identification codes.

Just as during the interbellum, this bureaucratic workflow remained implicit and cannot not simply be retraced by browsing through classic correspondence in the archives. Instead, mundane archival documents such as public tenders had to be 'read along the grain' to provide invaluable information. Many rural hospitals were realized by private construction companies whom the colonial government selected through public tender. These 'adjudications publiques' are made up of a 'cahier de charges,' a general description of the building assignment, which always referred to the identification codes of the particular pavilion plans that had to be realized under this public commission. Combined with various other sources on hospitals constructed by the colonial government, ranging from copies of type-plans, budgetary reports, correspondence, and present-day images and aerial photographs of healthcare infrastructure, this allowed to map the circulation of type-plans across Belgian Congo and better understand the everyday workflow that had become implicitly in use within the colonial government apparatus.

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186. While the archives do not contain direct reports on this situation, later testimonies of colonial doctors do. See https://www.memoiresducongo.be/oeuvre-medicale-au-congo-belge-et-au-ruanda-urundi/ [accessed 20 April, 2021].

187. Sengupta (2020, p. 112; 114).

Image 32 . Selection of *Cahiers des Charges*

Based on these various *Cahiers des Charges* and the identification codes of plans mentioned, a mapping of circulating type-plans could conducted.

Bafwasende

Baudouinville

Boende

Bomongo

Bunia

Budjala

Dekese

Demba

Gandajika

Ikela

Ingende

Isiro

Kabongo

Kamina

Kikwit

Kiri

Kirotshe

Kole

Lisala

Nyunzu

Poko

Luiza

Lodja

Sampwe

Shabunda

Uvira

Walikale

Image 33 . Selection of current-day photographs of former colonial C.M.C.s

In addition to the multiple *Cahiers des Charges* found in the archives, current-day photographs allowed to identify where provincialized type-plans were realized, how they circulated across the colonial territory, and how a parastatal organization such as the FBEI also deployed and disseminated its own type-plans.

These images stem from various sources: from my own excursion to Bikoro; from the website of the Congolese *Cellule d'Analyse des Indicateurs de Développement* which includes pictures of the capitals of the DRC's multiple territories; and from responses to e-mail requests of mine by various Belgian doctors who worked in rural hospitals (often as part of an NGO).

Aba

Aru

Bafwasende

Banalia

Banningville

Banzyville

Basankusu

Bikoro

Boende

Bongandanga

Bosobolo

Budjala

Bunia

Bumba

Dekese

Dungu

Gemena

Ikela

Kole

Libenge

Lisala

Masi-Manimba

Opala

Ponthierville

Poko

Sentery

Shabunda

Image 34 . Selection of aerial photographs of former colonial C.M.C.s

Based on the colonial territorial subdivision of Belgian Congo, numerous cities, towns and villages of Congo were scanned for remaining and recognizable healthcare infrastructures. 91 hospitals were identified of which either the *Plan d'ensemble* or separate pavilions were constructed according to the type-plans.

Google, DigitalGlobe.
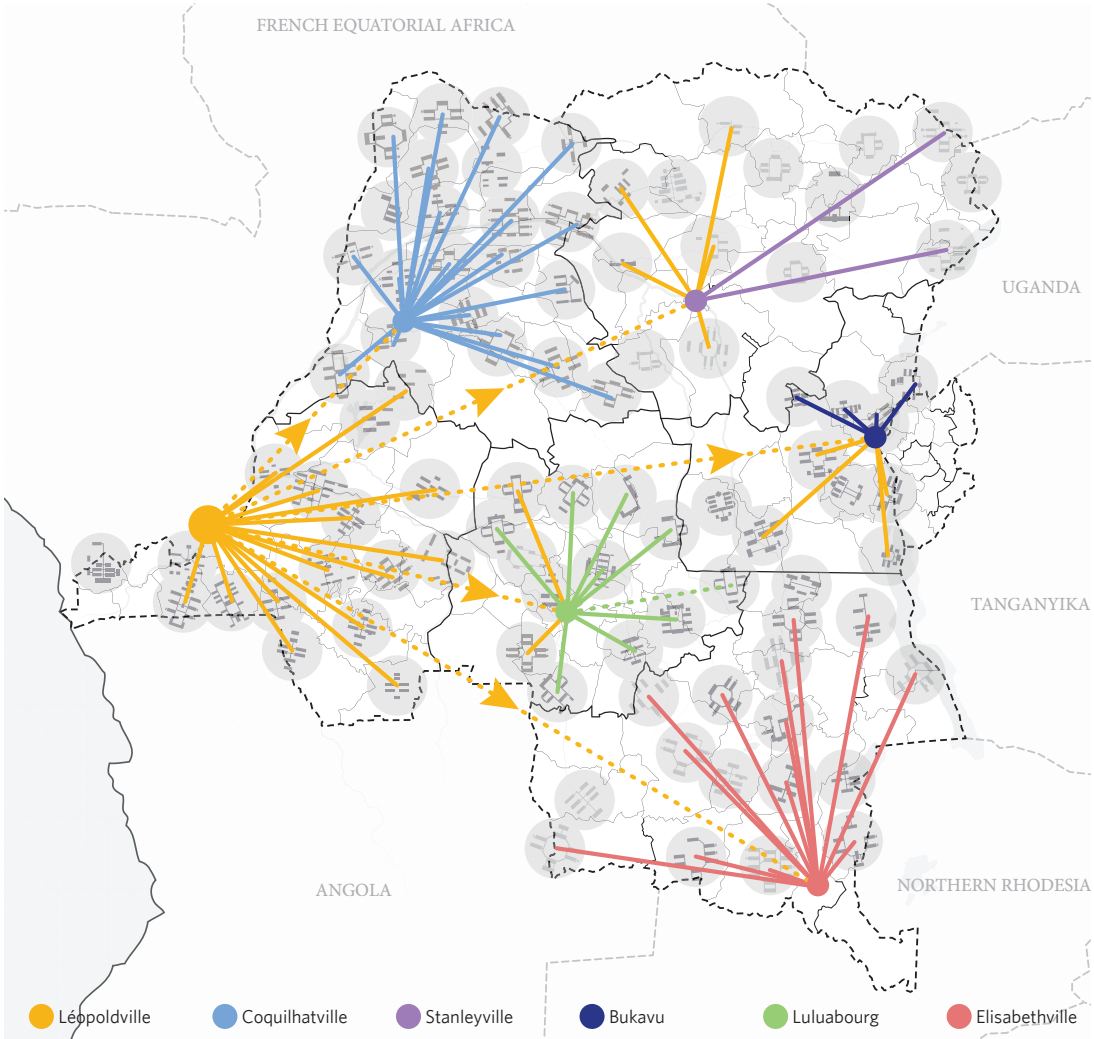
Image 35 . Emergence of provincialized type-plans.

As the binder of type-plans was sent from Léopoldville to the provincial administrations redrew and redesigned the plans in response to local challenges of climate and budget, often deploying a distinct architectural style in doing so. Especially Elisabethville (Katanga), Coquilhatville (Equateur), and to a lesser extent Luluabourg (Kasai), emerged as new bureaucratic nuclei. These branches operated in relative independence from the central government and developed their own distinct provincialized plans. Provincial branches disseminated these provincialized plans to various territory seats and outposts, where local administrators used the adapted binder of type-plans as a flexible tool to address on-site conditions or regional healthcare issues.

Sources: Annex 1.

The first layer of mapping this network of circulating plans illustrates the conclusions of the previous subsection, and depicts how the various provincial governments had developed and deployed their own provincialized type-plans (Image 35). New administrative centers of gravity emerged, which were no longer tightly governed by the central Public Works Service but executed their part of the Ten-Year Plan in relative independence. The prominence of both Coquilhatville and Elisabethville is remarkable. On the one hand, this may reflect how these two provincial branches had to deal with the most "extreme" climates in the Belgian colony: the hot and humid of the tropical forest, and that of the Katangese plateau, where it occasionally even freezes overnight. On the other, while Coquilhatville was clearly an integrated part of the workflow of the colonial administration – as will become clear below – Katanga effectively operated even more autonomously than other provinces. This reflects broader political, administrative and especially economic tensions and rivalries between the political colonial capital of Léopoldville – also called the *capital du papier* at the time – and the mining center and economic heart or the *capital du cuivre* of the colony. The Katangese provincial authorities had independently developed an own 'Plan Quinquennal' as part of the Ten-Year Plan, and although funded by the same international loans, this provincial plan set its own goals and deadlines.[188] With likely the most extensively staffed Public Works Service of all provinces, they deployed the most clear-cut and well-institutionalized provincial version of the type-plans, and rarely deviated from their own design solutions.

This first, already explored layer does not tell the whole story. A second mapping illustrates how, in response to the continuous shortages of personnel and budgetary deficits, a pragmatic economy of plans and paper emerged between the new bureaucratic nuclei (Image 36). Rather than inventing own solutions from scratch, colonial officials were quick to adopt already existing design approaches from other provincial branches. It was thanks to the system of public tenders – which were no longer exclusively launched in Brussels and Léopoldville, but now also in all provincial capitals – that provincialized plans and their specific identification codes circulated so quickly from one provincial branch to the other. If the provincial authorities of Equateur, for instance, published a tender for a rural hospital, the tender and its plans also had to be sent to every other provincial administration, where the Public Service was responsible for providing the tender to possible applying contractors. That way, members of the provincial Public Works Services in Stanleyville, Luluabourg and Léopoldville, for instance, quickly became acquainted with the climatic design solutions of the Equateur province. It did not take long before these provincial Services, all located in regions with a comparable climate to that of the Equator province, adopted design principles similar to those of the provincialized type-plans and sections of the Equateur province.

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188. AA/H 4570, *Plan Quinquennal Province du Katanga, Service Médical*, 1951-1956.
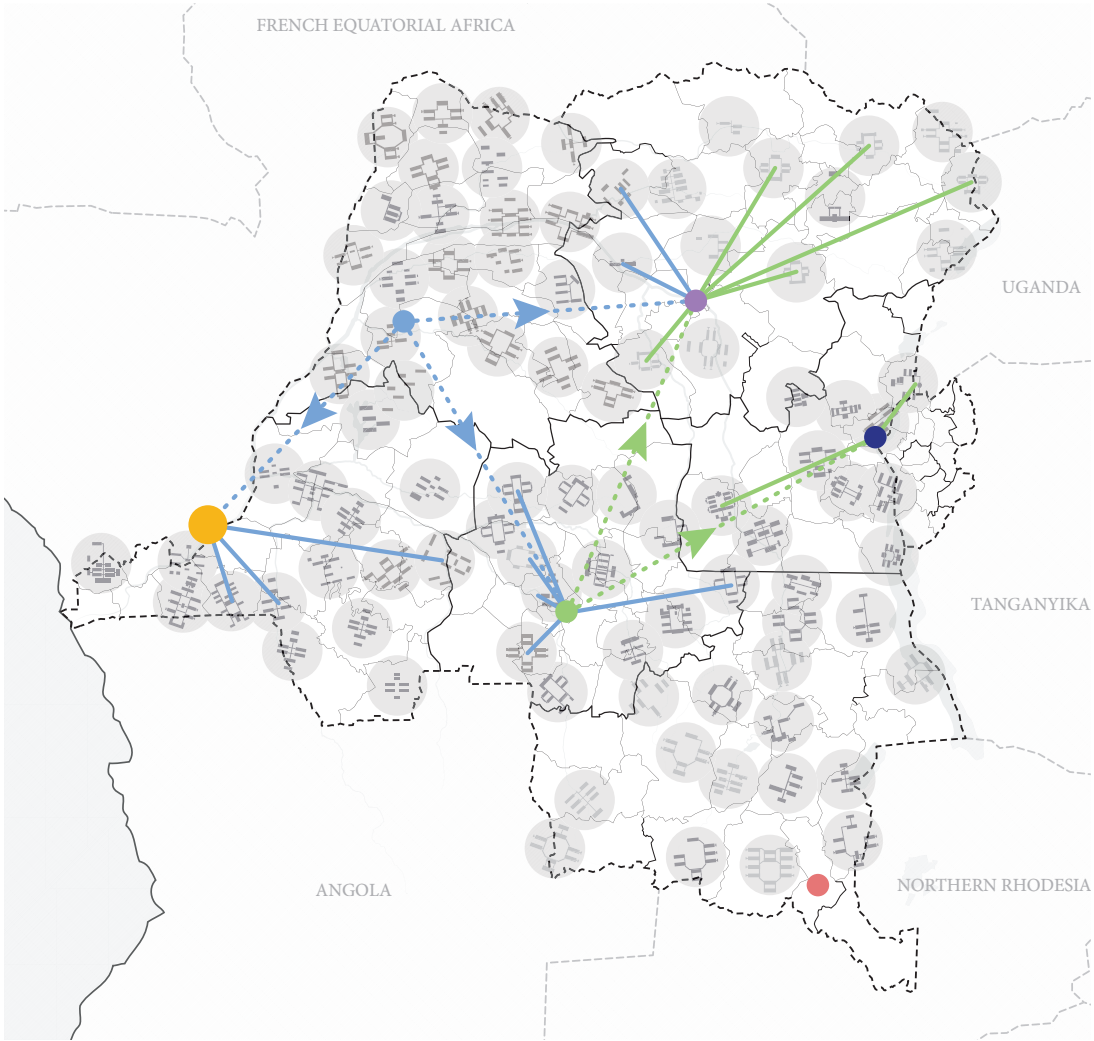
Image 36 . Exchanges of provincialized type-plans between provinces

As shortages of staff and budget plagued the administration, local branches quickly opted not to develop new plans from scratch, but instead recycled other provincialized plans. The climatic solutions from the Equateur were reused across the territory, as was the Kasai design of joint sanitary facilities and an adjusted L-shaped entry pavilion. While these exchanges began as an improvised practice of making do, they quickly evolved into an institutionalized system of identification codes and provincial databases. Such economies of plans and paper were marked by the circulation of design solutions that shortcut and ran counter to the traditional top-down chain of command of the colonial government.

Sources: Annex 1.

Image 37 . Circulation of Equateur's climatic design section to Kasai, Orientale & Léopoldville

One of these widely institutionalized design solutions was Equateur's section, optimized to the hot and humid climate of the tropics. The split gabled roof of this solution is often still recognizable in aerial photographs, as well as in contemporary and currentday images from various sites.

Above: Original sections from Equateur (AA/GG 16630), adjusted by the Orientale Public Works
                  Service (AA/GG 936).
Middle: current aerial photographs of CMCs in Ikela (Equateur) and Tshibala (Kasai).
Below: current images of Bikoro (Equateur) and Kimvula (Léopoldville); historical
photograph of Idiofa (Léopoldville, *ca.* 1955, J. Mulders (Inforcongo), MRAC, HP.1956.15.4003).
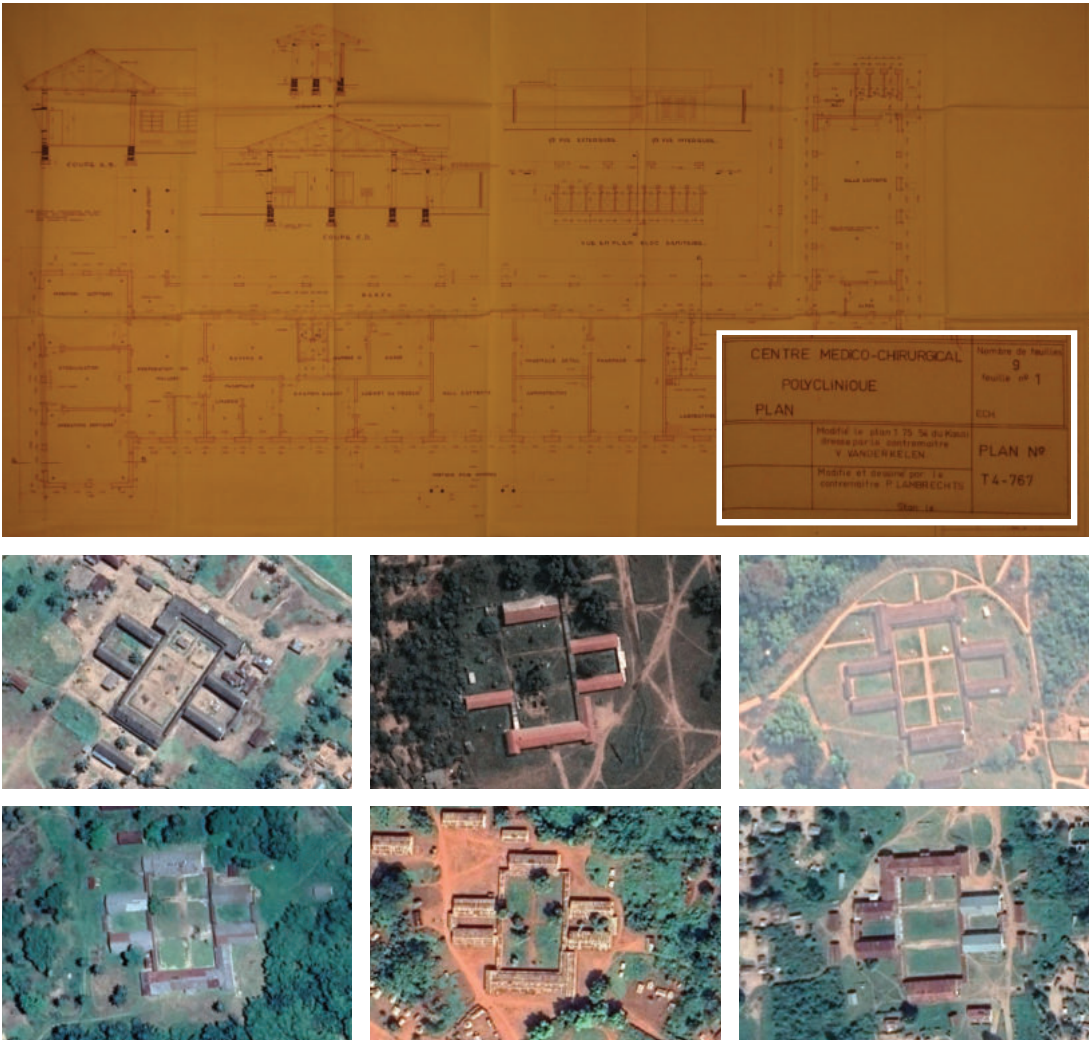
Image 38 . Circulation of Kasai's type-plans to Orientale

Kasai's *plan d'ensemble* and adjusted design of joint sanitary facilities and an L-shaped entry pavilion as a *polyclinique* was the most clear-cut example of recycled plans institutionalized by different provincial branches. As archival plans and aerial photographs illustrate, they were adopted in the Orientale province, and similar design principles were deployed by Kivu's Public Works Service as well.

Above: general plan of *Polyclinique*, AA/GG 936.
Middle: CMCs in Kole; Wembo Nyama; Mushenge, Kasai province.
Below: CMCs in Bafwasende, Poko; Dungu, Orientale province.

The climatic section of the Equateur did not imply sweeping changes to the floorplan of pavilions, and was rather easy to plug into an existing design. The provincialized type-plans of the Kasai province, in contrast, did mean more radical changes to the overall *Plan d'ensemble*, and are perhaps the best example of these emerging and increasingly institutionalized design exchanges. The entry pavilion was completely replaced by an L-shaped 'polyclinique,' which combined the function of the surgical suite with that of the administrative pavilion. Such unified building likely reduced the overall cost, and also meant less time-consuming circulation between two hospital functions that are intimately linked. A smaller adjustment was the joining of two sanitary facilities, which again allowed budgetary cutbacks. The Provincial Public Works Service of Orientale quickly picked up these adaptations. As current aerial photographs still show, multiple rural hospitals in Kasai and Orientale were almost exact copies of this decentralized design solution.

Whereas this recycling and adopting of various design solutions began as a pragmatic way to face shortages of budget and personnel, the practice quickly evolved into an increasingly institutionalized system. As type-plans arrived from other provinces, the receiving provincial Public Works Service often first copied and adopted the plans and its "foreign" identification codes by storing a reusable blueprint in its own database. Later, provincial Public Works Services would redraw these external type-plans, sometimes adjusting the design and allocating new identification codes which now followed the local provincial archival systems. Provincial archives thus often contained blueprints with identification codes from other provinces – allowing them to easily launch external public tenders – and blueprints from their own Public Works Service. These organically grown databases meant that policymakers disposed of an array of modular design solutions, from which they could pick-and-mix pavilions to compile a rural hospital that responded to local conditions of climate or healthcare, while also adhering to larger budgetary constraints.

The existence of provincial databases with multiple hospital blueprints also offered another advantage: it saved paper. While this may seem mundane, paper was a crucial resource for everyday colonial statecraft. As Tania Sengupta has argued for British India, 'paper became a key agent of colonial governance, not merely in itself, but also through the expanding spheres of its logic which impacted on, and permeated in a profound manner, the material and spatial culture' of the colony.[189] The bureaucratic logics of paper had undoubtedly shaped the Belgian colonial administration in ways similar to British India. In post-war Belgian Congo, however, it was also the *shortage* of paper that impacted the modus operandi of the Belgian colonial apparatus, and by extension, the spaces and infrastructures the government could construct. Even before the official launch

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189. Sengupta (2020, p. 114).

of the Ten-Year Plan, during the execution of the medical emergency program, officials were already complaining about the 'carence du papier' that was plaguing the Congolese *Gouvernement*.[190] When the head of Equateur's provincial Public Works Service, for instance, sent construction plans to local agents, he warned:[191]

> *J'ai l'honneur de vous faire parvenir en annexe deux plans [...] Je vous signale que je suis totalement dépourvu de papier de reproduction et le Gouvernement Général ne semble pas en posséder beaucoup. Je vous recommande donc de ne pas exposer ces plans au soleil, car ils deviennent par ce fait rapidement illisible, l'artisan chargé de la construction peut très bien les garder chez lui et prendre des notes et croquis d'exécution.*

By the mid-1950s, this shortage of paper had become even more urgent, and by the end of the decade, legends of plans often even explicitly disclaimed their own surface area, perhaps to allow European administrators to exert control over the often Congolese draftsmen.[192] When launching public tenders, Provincial Governments were reluctant to send expensive paper plans to their colleagues of other provinces, who operated under a separate budget. The increasingly institutionalized system of identification codes, however, offered a practical solution, as the tenders simply referred to the codes, and other provincial Public Works Services would know which plans to copy. Moreover, a system of public tenders was organized which avoided such expensive copies. Private contractors could choose to collect a *cahier de charges* without plans free of charge, or pay an additional fee per copied plan. In order to deter companies to buy plans and waste invaluable paper, the price was high to say the least – an average plan cost between 150 and 200 francs, enough to pay a Congolese construction worker for over two months.[193] To avoid such useless additional costs, it is more than likely that large contractors who applied for multiple tenders simply stored the plans themselves and did not purchase them anew.[194] As such, the pragmatic economies of plans and paper also engendered the further circulation of type-plans, even beyond the government administration.

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190. AA/GG 13161, Letter from *Chef du Service des Travaux Publics Provincial* F. Ruys to *Agent Territorial*, 30 September, 1948.

191. AA/GG 8446, Letter from *Chef du Service des Travaux Publics Provincial* ad interim V. Vanheule to *Agent Territorial*, 5 June, 1948.

192. See e.g.: AA/GG 968, Plan *C.M.C. de Businga*, *Implantation*, 15 November, 1958.

193. Or, translated to current currency, the cost of a single copy varied between around thirty to forty euros. See e.g.: AA/GG 968, *Cahier Spécial des Charges Cahier : Constructions de Pavillons Aux C.M.C. de Basankusu*, 15 November, 1958.

194. It happened relatively often that contractors applied for three or more different C.M.C.s. Large construction companies such as the *Compagnie du Sankuru* or the *Compagie Congolaise de Construction* even applied for five or more, spread across the Congolese territory. A mapping of the various applications to public tenders has been carried out by Robby Fivez (Forthcoming) and me, based on the section of *Adjudications* that was published in every edition of the *Revue Congolaise du Bâtiment et de l'Industrie* from 1953 until 1960.

This distribution of plans across the borders of the state apparatus is best illustrated in a third layer of mapping, which depicts the C.M.C.s constructed under the auspices of the FBEI (Image 39). While the government's provincialized type-plans circulated to the parastatal FBEI, the Public Works Services in turn also started incorporating plans from the FBEI, which had its own architectural unit for public buildings. Colonial architects must have played an important role in this exchange. F. D'Hondt, for instance, the administration's most renowned hospital architect, designed multiple wards for the FBEI during the end of the 1950s.[195] Especially in the second half of the 1950s, the slightly less expensive pavilion designs of the FBEI were deployed in several government hospitals, while the multiple hospitals constructed or financed by the FBEI were often a pragmatic compilation of the government's binder of type-plans, and the organization's own designs.[196] Thanks to the modular architecture of the pavilion typology, in which different designs from various organizations could easily be united, Belgian Congo's post-war hospital network became the result of a 'hybrid governance' in which state branches, parastatal institutions, religious missions and philanthropic organizations collaborated in producing a surprisingly uniform landscape of healthcare infrastructure.

The exchanges of design solutions occurred on a completely different scale than had been the case during the interbellum, and developed throughout the 1950s into a rather institutionalized bureaucratic system. As plans circulated directly between provincial branches, private contractors and parastatal organizations, these exchanges bypassed and ran counter to the government's official chain of command. Such pragmatic design exchanges challenged the rigorous, top-down implementation of the Ten-Year Plan that was implicitly portrayed in colonial propaganda. Nevertheless, it were precisely these messy exchanges beyond the chain of command or the state administration, and the modularity of the circulating type-plans, that provided local agents with the time, resources and flexible design solutions necessary to construct Belgian Congo's vast network of healthcare infrastructure.

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195. See e.g.: AA/GG 968, *Plan du pavillon caravensérail*, by F. D'Hondt, 23 January, 1957.

196. Other exchanges occurred as well, of which perhaps the most noticeable example is the case of Ganda-Congo. With this research station and medical center, the Ghent University aimed to provide counterweight to other Belgian Universities who had already established their presence in Congo. At the request of the University, Dr. Duren shared the plans of a C.M.C., which would have a huge impact on the final design by the hand of university architect Jan Cnops. See Cnops and Faulconer (1971); Eerdekens (2010); AA/H 4474, Letter from Dr. Duren to Professor Dr. Bouckaert, 5 November, 1955.
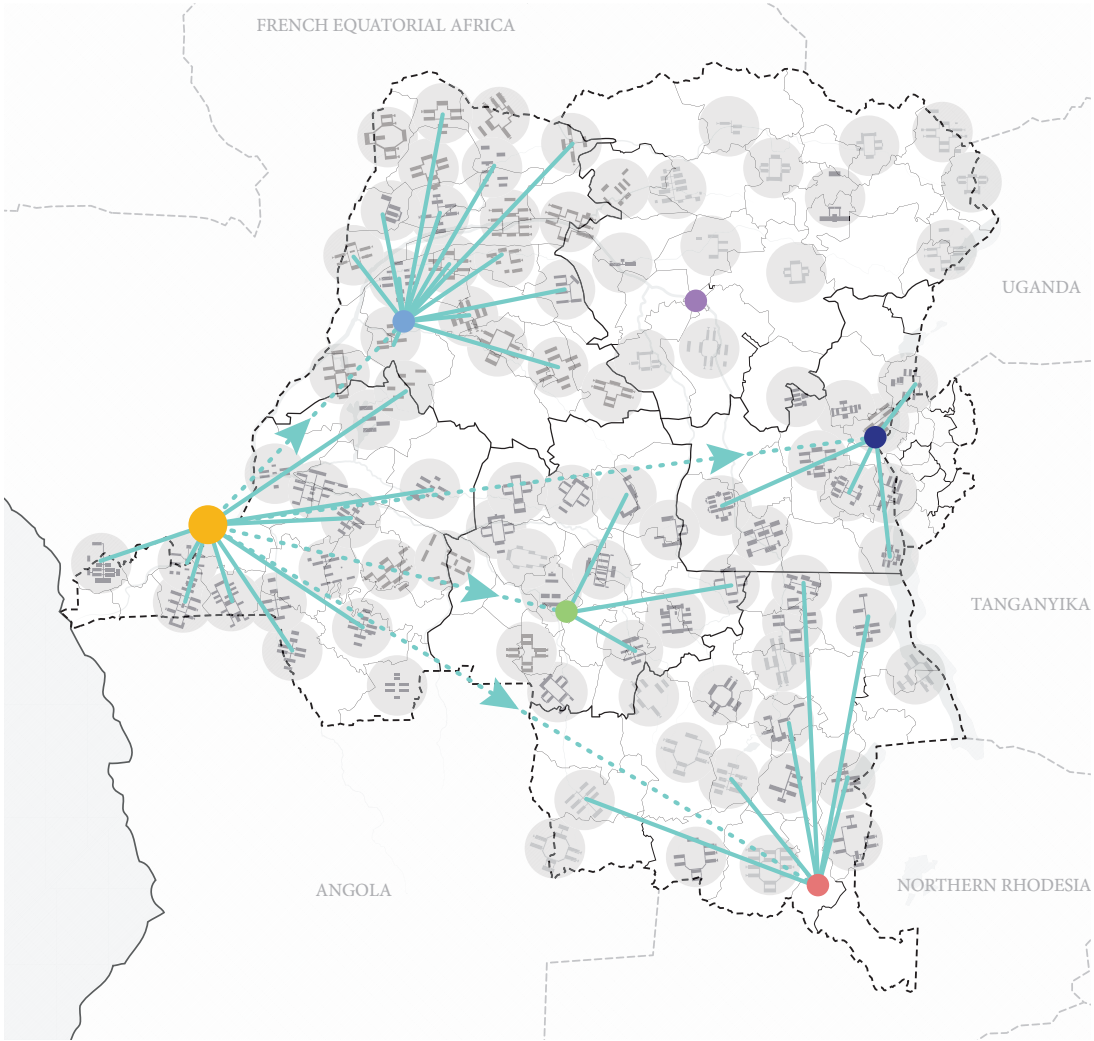
Image 39 . Circulation of design solutions beyond the state

The mapping depicts every rural hospital complex to which the FBEI contributed financially or in terms of design. Apart from the several CMCs fully funded by the parastatal organization, the FBEIs type-plans were used in numerous state rural hospitals. The more expensive state designs were simply replaced by the FBEI pavilions, which were easily integrated into the larger *plan d'ensemble* thanks to the modularity of the initial binder of type-plans. The result was a hybrid form of governance, in which colonial public healthcare infrastructure was produced by multiple actors beyond the state.

Sources: See Annex 1.

Image 40 . Circulating type-plans of the FBEI

Captions and identification codes of plans gave important clues on modus operandi of the state and collaborations with parastatal organizations. After receiving the plans of this maternity pavilion, originally designed by architect F. D'Hondt for the FBEI, Equateur's provincial Public Works Services had copied and reincorporated it into its local database. As a slightly cheaper solution than the original maternity design, it was often integrated during a later construction phase in existing hospital complexes, making optimal use of the modularity of the pavilion typology. Across Congo, this resulted in hospital designs that combinedv original type-plans, provincialized plans, and FBEI designs.

Above: FBEI Maternity Pavilion, AA/GG 968.
Below: Basankusu (Equateur), Sentery (Kasai) and Kilwa (Katanga) as examples of hybrid hospital infrastructures where this particular maternity design, with its protruding central entry and additional dormers in the roofing, is still recognizable.

F A Ç A D E S.

FONDS DU BIEN-ÊTRE INDIGÈNE.   PAVILLON · ADMINISTRATION · CHIRURGIE · RADIOGRAPHIE.   N°2446

HÔPITAL · F.B.I.

FACADE PRINCIPALE.
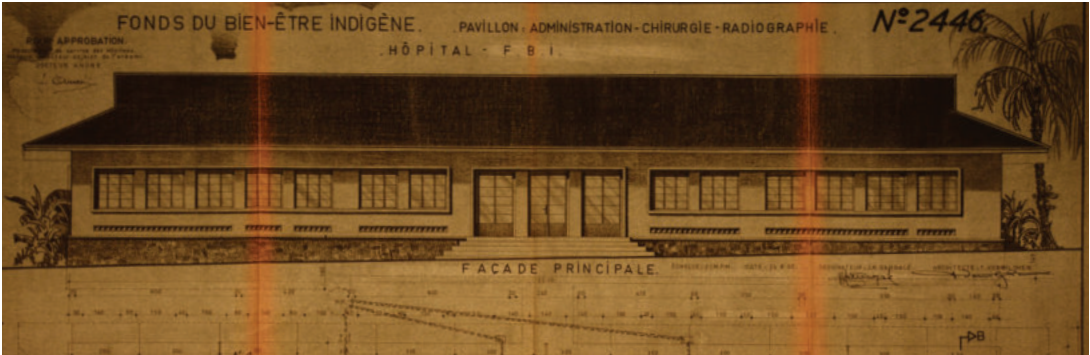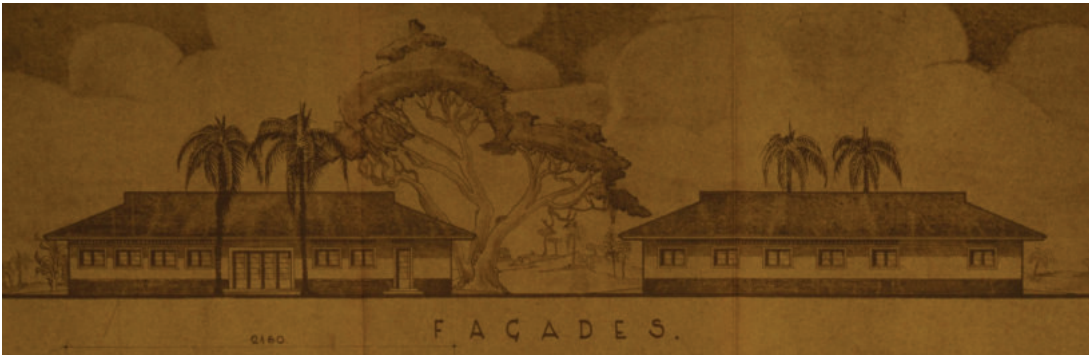
Image 41 . Circulating type-plans of the FBEI

Somewhat different than the state, the FBEI designed an increasing number of type-plans for healthcare infrastructure of ranging scale, from larger C.M.C.s to small rural dispensaries. As architects under the FBEI drew these new type-plans, they emulated the original designs of F. D'Hondt, and the FBEI developed an architectural identity that became widespread across the Congolese territory. Together with the recognizable façades of the state's type-plans, the FBEI's well-defined windows, pronounced ventilation shafts, and stone-cladded pedestal became visually synonymous with hospital architecture in Belgian Congo, and still mark the landscape of hybrid healthcare infrastructure in current-day Congo.

Left: FBEI maternity and administrative pavilion in recognizable style: AA/FOR 4669; AA/GG 17242.
Right: Current-day photographs of hospital pavilions characterized by an architectural language typical of the FBEI.
Images of Budjala (Equateur); Bomongo (Equateur); Poko (Kasai); Kiri (Léopoldville).

Peripheral nodes in the réseau hospitalier

I've discussed above how local administrators deployed provincialized adaptations and the modularity of type-plans to address to local challenges of climate, healthcare or on-site constraints. Next, I've mapped how an economy of plans and paper emerged, in which provincial branches recycled and institutionalized external design solutions to respond their own local challenges. Rural Congo had proved anything but the homogeneous, blank canvas that policymakers had implicitly assumed it to be. Neither did the Belgian colonial government function like an omnipotent 'Bula Matari', but instead relied on pragmatic and sometimes even makeshift solutions to respond to the varying local realities it faced throughout the implementation of the Ten-Year Plan.

The implicit beliefs of the Medical Program of a top-down apparatus implementing 'technologies of distance' across an isotropic rural Congo also contrasted with local dynamics at internal borders and external frontiers. The Ten-Year Plan's hierarchic hospital network was predicated on the hierarchic territorial subdivision of the colony, with each node serving its particular district or territory, and with the *réseau hospitalier* neatly stopping at the Colony's national borders. Administrative boundaries thus coincided with internal and international boundaries of healthcare. Such medical compartmentalization of the territory was destined to make the colony legible, controllable, and – colonial officials believed – would help to contain the spread of epidemics such as sleeping sickness. In reality, however, borders did not function as hermetic boundaries, but instead constituted and even engendered zones of 'intense interaction' and 'constant flux.'[197] This is illustrated in this subsection with two different cases: the Kiri hospital, situated in a remote and extremely inaccessible part of the Congolese interior, and the Aru hospital, located close to the Ugandan border.

At first glance, the Kiri hospital is a prime example of the lengths the colonial government went to mirror the new healthcare network to the colony's territorial subdivision. When the Ten-Year Plan was launched, Kiri was still a regular village in a larger territory which had its administrative seat in the town of Inongo. In 1952, however, the central authorities decided to subdivide the rather outstretched Inongo territory and make Kiri the seat of a newly created *territoire* that would bear the same name. At that time, the colonial outpost already housed a medical center which functioned as a satellite dispensary for the existing rural hospital in the former Inongo capital. Consisting of a doctor's room and two wards of 20 beds each, it was a fairly large primary care center in comparison to most dispensaries in rural Congo. Nevertheless, and despite the fact that Kiri was situated in one of the most remote, inaccessible and scarcely populated regions of the Congolese hinterland, the stringent Ten-Year Plan's logics now stipulated that the dispensary had to be expanded to a full-fledged C.M.C.

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197. Mathys (2014, p. 7).
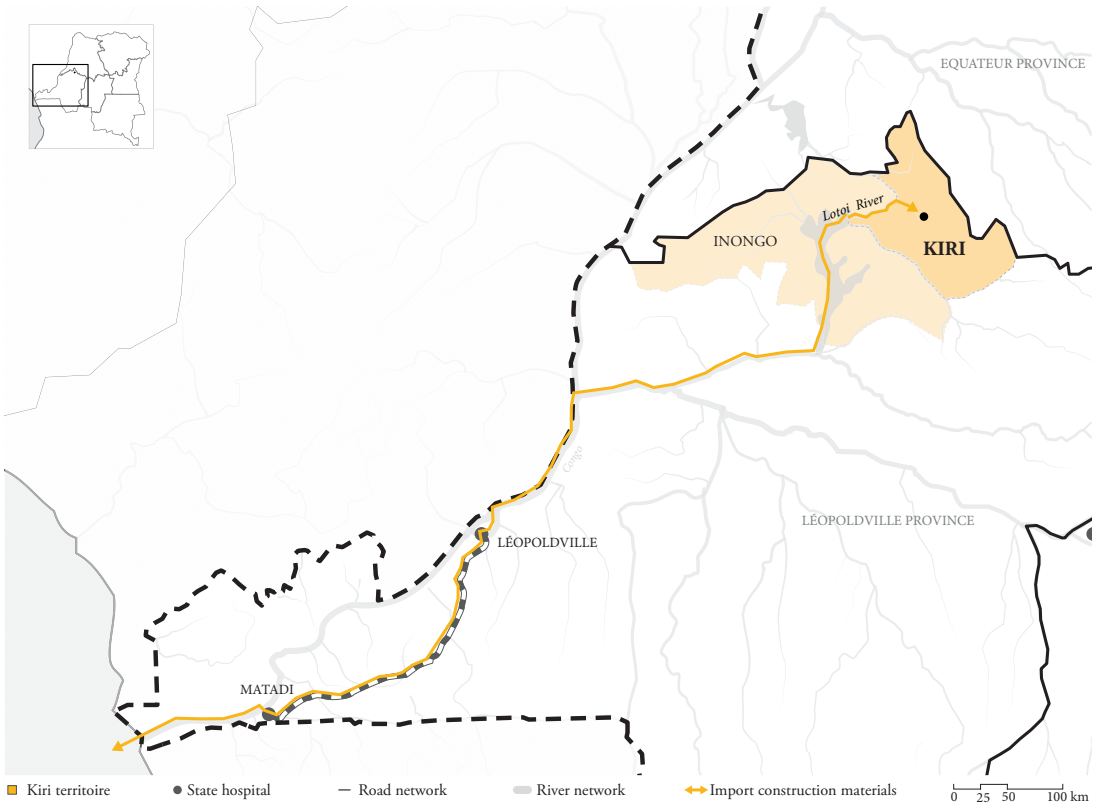
Image 42 . (In)accessibility of the *Centre Médico-Chirurgical* in remote Kiri

The map is drawn by the author, in collaboration with Laurence Heindryckx, based on the correspondence between the *Médecin Provincial* and the *Administrateur Territorial*, June 1956, AA/GG 20721.

Erecting a hospital in a place as remote as Kiri, however, was anything but easy. Situated in the midst of an outstretched marshland, without road or railway infrastructure, the village was only accessible via the Lotoi river from the *Lac Léopold*. In contrast to many other rural hospitals, which were constructed through public tender, there was no private construction company in the region willing to realize a hospital in the inaccessible village. This was indeed a costly and logistically challenging undertaking which not only implied the transport of construction materials and skilled labour, but also the provision of food, shelter and healthcare to the temporary African workforce. As a result, the colonial government was forced to deviate from standard procedure and realize the hospital *en régie*. Nevertheless, the transport of building materials had to be divided and outsourced. The administration had to contract no less than eight private companies, each transporting a portion of the total load. The additional transport expenses from Léopoldville to Kiri summed up to over a tenth of the total cost of hospitals in other territories. That the building materials were indeed precious is illustrated by the fact that when the equipment and construction parts finally arrived, the *Administrateur de Territoire* even decided to recruit a Congolese guard to prevent these materials from being stolen or damaged.[198] Whereas most other rural hospitals in the region had been planned and constructed remarkably quickly, the entire process behind the Kiri hospital took over five long years and cost over a fifth more than regular C.M.C.s.

Located at such an inaccessible and scarcely inhabited region, the Kiri hospital reveals how other motives beyond healthcare must have been at play when realizing a colonial hospital network. With its tentacles reaching deep into rural Congo, the *réseau hospitalier* was to increase overall state presence in the colonial hinterland and amend the state's 'arterial' territorial impact into more 'capillary' forms of power.[199] Through new, remote medical centers, the state aimed to penetrate even the least charted corners of the colony and monitor and control migrations and populations that had until then largely remained outside the direct ambit of the colonial state. Located on the border of the Léopoldville province, clandestine Congolese movements were indeed likely to happen in the Kiri *territoire*, and especially with regards to healthcare treatment. Living closer to other C.M.C.s in the Equateur such as Bikoro or Inongo, a large part of the local Congolese population must have been enticed to find treatment in these neighboring hospitals, and vice versa. However, the government had issued a *passeport de mutation* to strictly regulate African movement between *territoires*. In order to cross borders between territories and provinces, every Congolese had to acquire authorization by collecting the necessary stamps and inscriptions on their passports. Lists of African patients treated in Kiri's rural hospital during the 1950s reveals how the colonial medical administration deployed a 'tyranny of

198. AA/GG 20721, Letter from *Médecin Provincial* to *Administrateur Territorial* of Kiri, 12 June, 1956.

199. On 'arterial' and 'capillary' power, see Introduction.

paper regimes set up to control movement' and rigorously document the origins and legitimacy of every arriving patient.[200] Furthermore, passengers of the ferry boats were all medically examined and registered before arrival or departure, presumably at the hospital, another means of the colonial state to control the mobility of its Congolese inhabitants.[201] The registers listed the name, ethnicity, employer, profession, origin and medical condition of each patient or passenger. By closely monitoring birth rates and morbidity figures of each ethnic group, these biostatistics functioned as vital techniques of government. They allowed to devise ethnic- and region-specific healthcare solutions and facilitate the colonial state to maintain a healthy and productive labor stock. New remote rural hospitals such as the one in Kiri were thus to function as crucial nodes for data collection, bundling and transferring information to the central administration about until then uncharted territories.

In reality however, especially during the early 1920s and 1930s, the colonial government struggled to monitor every Congolese on the move, a situation that continued well until the 1950s. Despite the use of medical passports and hospital infrastructure, people, cattle, mosquitos or flies did not stop at administrative boundaries. These fluxes went against the government's strategies of limiting unregulated forms of 'native nomadism,' in order to secure employment pools that could be easily tapped for agricultural production or other economic means of production.[202] As other authors already argued, 'order was maintained in the African countryside by "a mixture of bluff and consent"' and as 'colonial institutions […] barely touched village Africa.'[203] This was equally true in remote rural Congo, where in spite of the increasing state presence, government presence remained 'arterial.' If the Kiri case illustrates the far-reaching extent to which the colonial state followed the administrative territorial subdivision, even in the most inaccessible regions, it also showed its logistical limits, and its practical impotence to fully control African migrations and populations.

That healthcare and territorial control or state presence were closely intertwined in rural Congo, was perhaps even more apparent at the colony's external boundaries. As the construction of the Aru hospital reveals, local cross-border movement of African diseases and populations quickly turned into a major point of political concern for the colonial government. Similar to the history of Kiri, the Aru outpost was in 1950 still part of a larger territory which had its administrative seat in another town called Mahagi. However, as the Provincial Governor at the time noted, Mahagi was small, situated on the fringes of the territory, and only

200. As historian Dhupelia-Mesthrie (2014, p. 11) also described in the context of South Africa. AA/GG 15610, Léopoldville/Kiri/Inongo, *Cercle Médical* Kiri/Ingongo Patients Registers, 1947-1957.

201. AA/GG 15723, Léopoldville/Kiri/Inongo, List of passengers, 1952-1959.

202. Henriet (2015, p. 345).

203. Killingray (1986, p. 437). Burton (2003, p. 64),

had 'dans son rayon, un dizième de la population totale.'[204] The Governor thus proposed to deviate from standard procedures and realize the rural hospital not in the administrative seat, but in the more centrally located missionary post of Essebi, a proposal that was quickly accepted by the Ministry of Colonies. While this solution certainly made sense from a demographical point of view, it also illustrates the impact local politics could have on the decision process behind the Ten-Year Plan's Medical Program. Local Vicar A. Matthyssen, who would later write an influential report on the matter, likely lobbied behind the scenes, convincing the Provincial Governor to realize the hospital at the missionary post under the control of the religious order, who would cede a large terrain to the state in return.[205]

Despite the official approval from the Ministry to move the hospital to the mission post, the vicar's lobbying proved in vain a few years later. By 1954, the Mahagi *territoire* was subdivided and the Aru territory was created, with the Aru outpost as new administrative seat. Construction of the rural hospital in Essebi had still not begun, and discussions on where to construct the C.M.C. resurged. While local administrators pointed to this territorial reorganization to reignite the debate, the real reason behind the resurging discussions clearly was the emergence of local border dynamics that were deemed an increasingly urgent 'problème politique.'[206] The greater region of North-East Congo and Western Uganda had long been home to the Alur people, a cultural amalgam of chiefdoms and clans whose territory had been cut in two by the colonial frontier. Naturally, exchanges and movement between both sides continued, and large fluxes of people, cattle and trading goods continued to cross the border throughout the colonial period. With independence movements on the rise after the second World War, Alur voices in favor of irredentism became increasingly louder, especially on the Ugandan side.[207] These calls were strengthened by Ugandan labor movements and strikes, which, in contrast to Belgian Congo, were already allowed by the British protectorate. This was much to the discontent of the Belgian authorities, who felt this 'problème politique [...] deviendra rapidement dangereux depuis que ces Alurs ugandais sont systématiquement travaillés par des mineurs politiques auxquels les Anglais sont incapables d'opposer une action modératrice.[208] This fear for an 'infiltration continue d'étrangers travaillés par des propagandes subversives,' had far-reaching effects for the healthcare infrastructure in the region.[209] In 1954, the new Provincial Governor Breuls de Tiecken – who had previously been active

204. AA/GG 6138, *Note justifiant l'installation d'un Centre-Médico-Chirurgical à la mission de Essebi plutôt qu'au poste frontière de Aru*, by A. Matthyssen, 7 July, 1953.

205. Ibid.; *Biographie belge d'outre-mer* 1973, p. 341).

206. AA/H 4474, Report on *Controverse Hôpital F.B.I. Essebi*, 30 December, 1956.

207. This irredentism also played an important role in the decision by the Ghent University to install their medical research facility close to Mahagi, as a means of countering this movement. See: Eerdekens (2010, p. 73).

208. AA/H 4474, Report on *Controverse Hôpital F.B.I. Essebi*, 30 December, 1956.

209. AA/H 4474, Note by *Inspecteur Général de l'Hygiène, Dr. Kivits*, 29 April, 1957.

— Road network   ⬌ Formal border crossing   ⬌ Informal border crossing   0 ▭▭▭ 35 inh/km²   0 ⌐⌐⌐ 30 km

Image 43 . Border dynamics at the Aru border

Before the Mahagi territory was split up, local administrators had decided the rural hospital would not be constructed in the remote territory seat of Mahagi, but rather in the centrally situated religious outpost of Essebi. Throughout the 1950s, however, the continuous crossing of the Alur people was increasingly considered a political danger by Belgian policymakers. Despite its less optimal location, they decided to construct the rural hospital in Aru, where it would function as a medical checkpoint surveilling the main road into Congo. In reality, however, it is unlikely that this decision curtailed crossborder fluxes, as local inhabitants frequented the *sentiers* rather than the official roads.

Drawing by author in collaboration with Laurence Heindryckx, based on correspondence and local demographic surveys in AA/GG 6138; AA/H 4474.

Coquilhatville[210] – decided to construct the rural hospital not in Essebi, but in Aru, which was situated much closer to the border. While the former was still much more easily accessible to most inhabitants of the territory, Aru was situated on the main entry way into Congo, from which multiple roads went inwards. As such, policymakers believed, a C.M.C. in Aru could function as a medical checkpoint, as it allow to 'faciliter la surveillance sanitaire à la frontière' and 'éviterait que les autochtones du Congo Belge n'aillent se faire soigner en territoire Ugandais.'[211] With the construction of the rural hospital in Aru, the colonial government clearly not only aimed to improve healthcare conditions for the Congolese, but also strived for political control, territorial state presence, and sanitary border surveillance. Neverthelesss, similar to the Kiri hospital, local movements and exchanges between peoples in this frontier zone could not simply be curtailed with increased border control. As later reports suggest, the realization of the Aru checkpoint did not stop Africans from crossing the borders, as they followed local *sentiers* rather than the official road that went through Aru, and as numerous Ugandan Alur frequented and continued to frequent Aru's C.M.C.[212]

By planning and rigorously following the Ten-Year Plan's healthcare scheme, which was neatly limited by Congo's external frontiers and based on a strict hierarchic subdivision of the colonial territory, central policymakers were overlooking important local border dynamics. Both in Kiri and Aru, hospital infrastructure was deployed as a political means of control over African bodies, disease, and movement, either by increasing state presence in Congo's remote inland, or through sanitary border surveillance. In both cases, however, the additional motives of territorial control behind the Ten-Year Plan's healthcare network clashed with logistical construction problems, but especially with what Nugent and Asiwaju have described as the 'paradoxical nature of African borders.'[213] While colonial boundaries were meant to seal off, subdivide and make legible, they often generated – as so many policy decisions during colonial times – 'unintended consequences of colonial rule.'[214] Rather than separate, they created a permeable borderland through which interactions, trade, and migrations happened that blurred and undermined colonial rule even more. Healthcare infrastructures in frontier regions generated the same unforeseen, collateral consequences, attracting populations who often lived close by, but who had to cross boundaries and challenge colonial territorial logics to receive medical care.

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210. See 3/M.

211. AA/H 4474, Report on *Controverse Hôpital F.B.I. Essebi*, 30 December, 1956; AA/H 4474, Letter from *Ministère des Colonies* to *Gouverneur Général*, May, 1957.

212. This had also been the argument of local administrators and the local Vicar Matthyssen when arguing in favor for Essebi. See AA/H 4474, Report on *Controverse Hôpital F.B.I. Essebi*, 30 December, 1956; AA/GG 6138, Note justifiant l'installation d'un Centre-Médico-Chirurgical à la mission de Essebi plutôt qu'au poste frontière de Aru, by A. Matthyssen, 7 July, 1953.
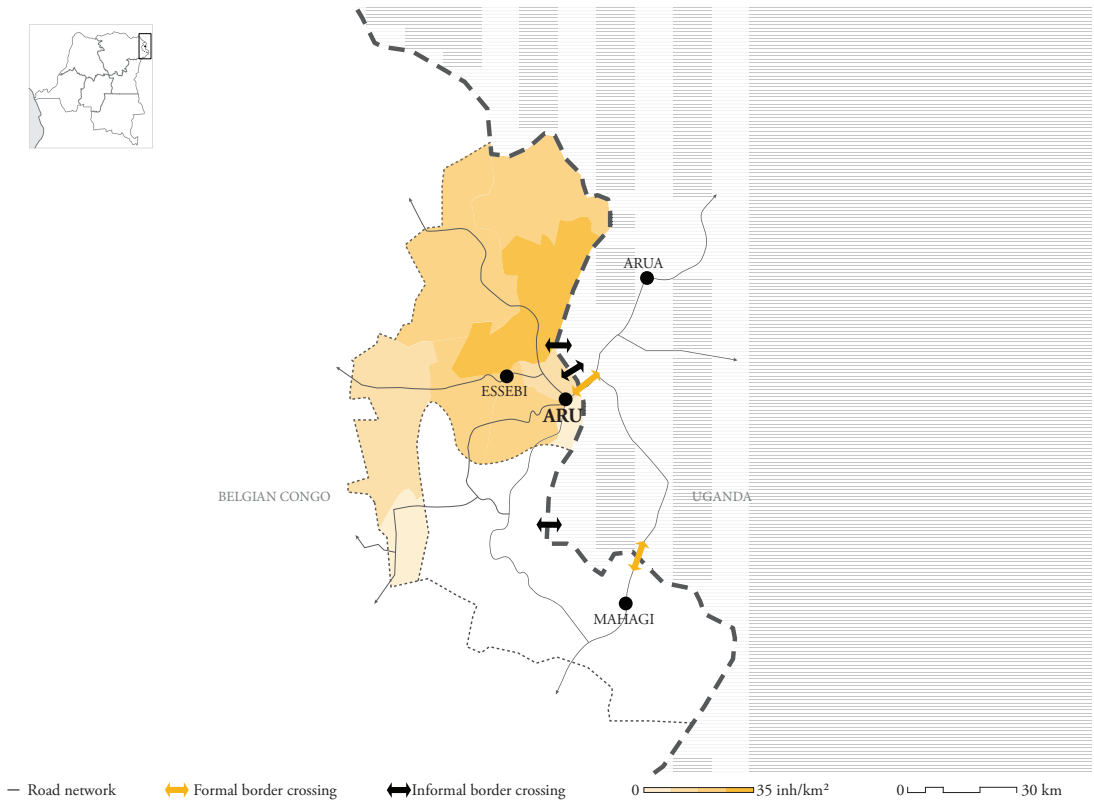
213. Nugent and Asiwaju (1996, p. 2).

214. Mathys (2014, p. 4).

These local 'unintended consequences of colonial rule' proved a recurrent theme throughout this ***large*** scale, that precisely aimed to confront the central planning of the Ten-Year Plan's Medical Program with its local implementation. The Medical Program of the Ten-Year Plan was a vast and crucial part of Belgian Congo's post-war policy. It was not only aimed at genuinely improving public healthcare, but also served to internationally legitimize continued colonial rule, boost labor productivity, and monitor and control rural and urban populations through increased state presence. To efficiently 'scaffold' such a vital and outstretched construction campaign, the colonial authorities developed type-plans for rural hospitals as potent 'technologies of distance.'[215] At first glance, this spatial technique of governmentality seemed to confirm how Belgian central authorities followed 'an imperial or hegemonic planning mentality that excludes the necessary role of local knowledge and know-how.'[216] Drawn without reference to the future surroundings and disseminated in an easily transportable binder along the administrative chain of command, the design and development of type-plans seems a prime example of the Belgian autocratic 'Bula Matari,' that disregarded local realities by flattening rural Congo into a blank canvas, only divided by administrative borders and western cartography.

Colonial governmentality and the everyday administrative modus operandi, however, was more complex. Already during the preparation of the Medical Program, locally compiled surveys influenced central decision-making. More importantly, under the influence of important protagonists such as Dr. Duren and Dr. Thomas, who relied on a career-long local experience or 'ethnographic sagacity,' type-plans were not exclusively designed as rigid models. Rather, they functioned as flexible tools, which provincial branches 'translated' to their local climate, and which allowed local officials to respond to on-site conditions or regional healthcare issues. Through a system of public tenders, these provincialized type-plans quickly circulated between provincial services and against and beyond the official chain of command. Provincial branches quickly adopted these external design solutions, and what started as an implicit workflow of informal exchange in the face of shortages of budget and personnel, was quickly institutionalized into a pragmatic economy of plans and paper, with an extensive, yet flexible system of provincial databases of modular type-plans.

This pragmatic modus operandi of circulating provincialized type-plans and their local, modular use, questions the image of Belgian colonial statecraft as an autocratic, top-down 'Bula Matari' that rigorously realized a medical model colony. This questioning, however does not imply a nuancing or renouncing of the highly coercive and racially unequal nature of Belgian colonial policymaking. On the contrary, even in domains such as healthcare and during times of so-

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215. Scriver (2007b).
216. J. C. Scott (1998, p. 6).

called 'welfare colonialism,' race divided colonial society. While type-plans gave local officials the agency to adapt healthcare infrastructure as they saw fit, these local agents were exclusively European actors, even though Africans were speaking up more and more in the post-war period, both in colonial society in general and healthcare policymaking in particular. African medical assistants in particular, became a group of 'middle figures,' who were politically engaged and were pioneers in voicing their discontent about the segregationist logic of Belgian colonial rule.[217] However, just like other African figures such as the village chiefs of Kintobongo, they had little to no impact on the network of hospital infrastructure, as their suggestions were often silenced or overruled. While Belgian Congo's healthcare network was propagandized and increasingly lauded across the globe, the voices of its African patients and staff remained muted.

217. See e.g. the publication of Sabakinu Kivilu (2005) on Paul-Gabriel Dieudonné Bolya. As an *Assistant Médical Indigène*, he voiced his discontent in the periodical *La Voix du Congolais*, which was aimed at the rising upper class of Congolese évolués, and would later become an important political figure in independent Congo. See also Tödt (2018).

Image 44 . Façade and inauguration of the *Hôpital du Cinquantenaire*

With its grand design and widely mediatized inauguration, the *Hôpital du Cinquantenaire* explicitly served the electoral agenda of President Kabila. Setbacks after its realization, however, quickly exposed the Congolese state's healthcare policies as unfulfilled political promises.

Above: https://www.radiookapi.net/actualite/2015/05/22/kinshasa-les-medecins-indiens-de-lhopital-du-cinquantaine-poursuivis-pour-exercice-illegal.
Below: https://www.radiookapi.net/actualite/2014/03/22/kinshasa-joseph-kabila-inaugure-lhopital-du-cinquantenaire.

3/ARCHITECTURE

Hospital design for African 'users': Léopoldville's *Hôpital des Congolais*

After healthcare had been a one of the spearheads of President Joseph Kabila's 'Cinq Chantiers' – the public investment plan announced during his first presidential run in 2006 – Kabila again mobilized public health and hospital construction five years later in his second election campaign. One of the cornerstones of his 'Révolution de la Modernité' – his new electoral slogan – was the realization of the *Hôpital du Cinquantenaire*. The project would offer a new and modern medical complex to the capital, and was prominently situated at the crossroads of the *Boulevard Triomphal* and the continuation of the *Avenue du 24 Novembre*, two main arteries in Kinshasa. Perhaps even more symbolical was the fact that the hospital would finally finish the ruinous breezeblocks of the former *Hôpital Cardiologique*, a never-completed 'utopian' hospital project commenced under Mobutu.[218] During its highly mediatized inauguration ceremony, the complex was not only proudly proclaimed as 'le meilleur d'Afrique Centrale,' but the then Minister of Public Health Félix Kabange Numbi also assured 'que les tarifs des soins seraient accessibles à tous.'[219]

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218. Lachenal (2013, p. 66).
219.   https://www.radiookapi.net/actualite/2014/03/22/kinshasa-joseph-kabila-inaugure-lhopital-du-cinquantenaire [accessed: 18 September, 2020].

Rather than fulfilling these promises, however, the hospital mainly testifies of the emergence of 'global health' in Africa and the many pitfalls this new paradigm has implied for the continent's latest architecturally ambitious hospital projects.[220] As the result of a public-private partnership with a Chinese contractor and an Indian private group specialized in 'luxury hospitals,' the complex has proven a 'mismatch' with the local context and has been plagued by a series of setbacks.[221] Destined to symbolize the presidential ambitions of 'Modernité,' the design's conspicuous architectural appearance led to roaring construction costs that stand in stark contrast with the dire socio-economic challenges most of its *Kinois* users face – be it patients, visitors or staff. The Indian personnel does not speak Lingala nor French, the fees remain much higher than many other medical facilities in the city, and the design of the hospital does not spatially facilitate the practice of family members supporting their patients as 'garde-malades' – a common hybrid healthcare practice across current-day Congo. This of course puts even more workload on the Congolese staff, who have started protesting against the poor working conditions enforced by their Indian employers. To make matters worse, a heavy fire turned the 'shiny new complex' into an already 'dilapidated' structure a mere six years after its opening.[222] Within a decade after start of construction, the hospital that was promised to bring a brighter future of public healthcare to its Congolese users, had turned into a medical fiasco, painfully unmasking the Congolese state's healthcare policies as unfulfilled electoral promises.

While seemingly ordinary, the notion of 'users' is compelling here, since it reflects a much deeper discussion within architectural theory. Closely related to ideas of functionalism, it became a particularly crucial concept with the emergence and consolidation of the Modernist movement from the 1930s onwards. As Adrian Forty explains, its 'origins coincide with the introduction of welfare state programmes in Western European countries after 1945,' and held 'strong connotations of the disadvantaged or disenfranchised - it particularly implied those who could not normally be expected to contribute to formulating the architect's brief.'[223] Hospital planning has had an even longer tradition of focusing on its 'users,' albeit often implicitly. Already throughout the 19th century development and institutionalization of the pavilion typology, functionalist concerns about patients and their health had been central to discourses on hospital architecture. Minimum standards of space and ventilation were not only always formulated per patient, to ensure the building functioned as a 'machine à guérir,' hospitals with an overly ostentatious architecture were also widely condemned as immoral,

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220. On the emergence of the 'global health paradigm' in current-day Africa, see Geissler (2015b).

221. De Nys-Ketels, Lagae, et al. (2019, p. 161).

222. De Nys-Ketels, Lagae, et al. (2019, p. 162). On the strikes and fire: see e.g.: https://www.jeuneafrique.com/540707/societe/rdc-incendie-spectaculaire-a-lhopital-du-cinquantenaire/;
https://www.radiookapi.net/2016/08/16/actualite/societe/kinshasa-durcissement-du-mouvement-de-greve-lhopital-du-cinquantenaire [accessed: 18 September, 2020].

223. Forty (2004, p. 312).

as such architectural excess meant resources were not properly allocated to the hospital's core function of healing its 'users.' The post-war typological shift within Western hospital planning from pavilions towards American 'skyscraper' or 'corridor hospitals' - a hybrid typology with multiple high-rise hospital wings or pavilions more in sway in Europe – only increased the emphasis on 'user'-oriented design. Modernist ideals of functionality spilled over, and armed with new methods of logistic and organizational diagrams that outlined ideal circulation flows of 'users' and medical material, hospital planners sought to design the most efficient medical complexes. Nevertheless, this new post-war shift towards 'user' functionality was still approaching 'users' not as individuals, but as broad groups with generalized needs. Hospitals design practices were criticized, since 'patients were not treated as persons, but rather as a collection of possible diseases.[224] These critiques on 'dehumanized' hospitals not only led to another paradigm shift in hospital planning from roughly the 1980s onwards towards 'empowering the patient.'[225] It has also again been picked up in more recent debates, in which planners are increasingly calling to shift from 'cure' to the more holistic approach of 'care.' While in the former, concerns of cost-efficiency prevail, the latter acknowledges the various physical, mental and moral needs of the individual 'user' and aims to translate these into an appropriate hospital environment.[226] In the 1950s, however, these individual needs were still largely overshadowed by an emphasis on efficiency, as well as by political motives of representation. Rather than infrastructures offering patient-centered care, hospitals were designed as well-oiled 'health factories,' with machine aesthetics that served to symbolize the post-war development of the welfare state.[227]

While tensions between 'user'-oriented design, concerns for efficiency and political ambitions of architectural grandeur continue to be at play in contemporary projects such as the *Hôpital du Cinquantenaire*, they especially plagued colonial hospital design during the 1950s. The parallels with the never realized *Hôpital des Congolais,* planned at the exact same location under the Ten-Year Plan, are impossible to overlook. Current-day Congolese press covering the inauguration of the *Hôpital du Cinquantenaire* also noted these parallels and the *longue durée* of the hospital site, mentioning how 'la pose de la première pierre' had indeed happened

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224. Wagenaar (2006, p. 37). For a discussion of such critiques on hospital design in the American context, as well as how diagrams influenced factory aesthetics, see Knoblauch (2013).

225. Bates (2018); Wagenaar (2006, p. 37)

226. While the debate on cure versus care already existed within discussions on healthcare provision (Baumann, Deber, Silverman, and Mallette (1998), it has also pervaded more recent debates on hospital planning and urbanism, see e.g.Bates (2018); Fitz and Krasny (2019); Vervloesem and Camp (2016).

227. See e.g. the functionalist plea from hospital architect Charles Elcock (1942, p. 361) to the British Royal Society of Medicine, arguing how 'the architect must try and forget his little tricks and details, and think more on the lines of a scientific "factory for health." As Kisacky (2017, pp. 197-205) has also shown, this functionalist terminology and way of thinking about hospital architecture was widespread at the time, as contemporary hospital manuals increasingly spread this new architectural idiom. See e.g. Goldberg (1930); P. Nelson (1933); Ritter and Ritter (1932).

under 'la colonisation belge,' yet that 'déjà à l'époque, le chantier s'enlise.'[228] The design process of this colonial medical project indeed knew repeated delays. The hospital had been commissioned in 1948 to Georges Ricquier as a payment for the development of his *Plan d'aménagement* for Léopoldville, much like Noël Van Malleghem in Elisabethville.[229] Ricquier formulated his first main proposal only two years later, and it took him another four years to incorporate critique and feedback of the authorities into a second proposal. These delays, the incredibly high overall costs of Ricquier's design, and malicious contract negotiations between the state and the private architect eventually led the colonial Public Works Services to take over the project in 1955, which again slowed down the process.[230] After thoroughly adapting Ricquier's second proposal, they finished the detailed construction plans some two years later. The public tender was launched in 1958, and construction finally started a year before independence, when the project was forcefully put to a halt and only the concrete foundations of the hospital had ever been executed after over a decade of preparation.

While Ricquier's design process was clearly plagued by conflicts of interest between the private architect and the colonial authorities similar to the hospital of Van Malleghem in Elisabethville, this last ***architecture*** section is less concerned with these administrative tensions. Rather, I'll examine how new, Western, 'user'-oriented hospital typologies and principles – with their tensions between 'user' needs, efficiency of cure, and political aims of representation – were imported and adapted to the post-war colonial context. This gives insight in the ways colonial architects adapted architectural practices in order to translate hospital planning practices that had been developed for a Western audience to the – often assumed – needs of African 'users.' The political changes in the post-war era, and the emergence of the development paradigm in the colonial world, only complicated this process of translation. Formerly rigid racial categories were becoming increasingly fluid, as African social progress and political emancipation became a conceivable possibility – even if this remained an extremely controlled and paternalistic process. When designing a modern colonial *Hôpital des Congolais* in the post-war period, Ricquier was thus faced with difficult design questions about how to adjust Western hospital planning principles to a population that was not "Western," but was to "westernize" over time.

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228. The articles identify 1954 as the start of construction, yet this was only in 1959, as explained below. https://www.rfi.fr/fr/afrique/20140323-rdc-kinshasa-hopital-cinquantenaire-enfin-inaugure-kabila-sinohydro-padiyath-healthcare; https://www.radiookapi.net/actualite/2014/03/22/kinshasa-joseph-kabila-inaugure-lhopital-du-cinquantenaire [accessed: 18 September, 2020].

229. As already explained under 3/S.

230. These discussions were even more heated than those with Noël Van Malleghem. Ricquier eventually recruited a lawyer to demand his complete honorarium, even if he would not develop the plans or oversee construction. The result of the negotiations is unfortunately unknown, as the correspondence on the matter has only been partially stored in the archives.

In what follows, I will highlight two levels on which the architectural practice of hospital planning was translated or redeployed in response to the post-war colonial context and the (assumed) needs of African 'users.' First, the typological shift in the field of hospital planning occurred within the broader emergence of welfarist state programs in the West, and thus went hand in hand with increasingly high standards of space, privacy, and medical comfort. Although still deeply marked by racial hierarchies, the post-war colonial context saw the emergence of the 'development paradigm,' and the widespread belief in the need for social progress of the colonized. The urban planning, typological choices and architectural design of colonial hospitals thus had to facilitate this new 'politique de transition,' and harmonize persistent racial hierarchies with the possibilities for social progress. Throughout the design process of the new *Hôpital des Congolais*, colonial policymakers and architect Ricquier not only continuously grappled with the question of what the appropriate degree of medical comfort, spaciousness, or architectural grandeur was for a hospital for Africans, but also redeployed modularity and flexible architecture as a way of materializing the government's aim to gradually "civilize" African 'users' along the linear path set out by the West.

The second level is related to the emergence of diagrams in Western hospital planning as an important architectural tool to both analyze and visualize the increasingly complex hospital designs of the high-rise and corridor typologies. Inspired by best practices in Western hospital planning, Ricquier and the colonial architects imported and deployed this new tool during the design process of Léopoldville's *Hôpital des Congolais*. In Belgian Congo, however, these diagrams became an ambiguous design instrument. By allowing to distinguish circulation trajectories of Europeans doctors and other African 'users,' they facilitated conscious design attempts towards racially segregated logistics on a scale unseen before in other Belgian colonial hospitals. In reality, however, such design ambitions of racially segregated circulation flows could never be perfectly realized, and also meant that inefficient and costly extra corridors had to be added to the complex. As a comparison between the design's diagrams and the actual plans reveal, Ricquier and his successors of the Public Works Service not only used diagrams as a tool of design, but also as an instrument of visualization, in order to mask such imperfectly separated logistics.

Before discussing these two levels, however, I first explore the new post-war developments of hospital planning in more detail, and trace how these insights circulated to the colonial administration and architects such as Georges Ricquier. I return to this question of knowledge transfer in a concluding, fragmentary overview of some institutions and networks that emerged in the late-colonial period, revealing how even if such knowledge exchange came too late to truly impact *colonial* hospital planning, it would continue to have a long-lasting impact on expertise on hospital infrastructure in Africa and beyond.

A transnational paradigm shift in hospital planning

From the 1930s onwards, the long-established pavilion typology finally became under scrutiny in the Belgian metropole, making way for new, more dense hospital typologies. This shift was the result of new insights within the hospital planning discipline and the emerging architectural Modernist movement, and was spread through a complex constellation of professional institutions, publications, and personal networks of knowledge exchange not only to the West but also, to a lesser extent to colonies such as Belgian Congo.

Within hospital planning practices, it were predominantly changes in medical science and budgetary concerns that ushered in typological changes. Especially in urban areas, shortages of building surface increased the cost of the outstretched pavilion hospital, and the long distances staff had to cover in between wards equally raised daily healthcare expenditures. Moreover, with the emergence of antisepsis and the germ-theory, ventilation was no longer the prime concern in hospital planning. Instead, medical science started emphasizing the importance of close collaboration between various hospital services, implying that rather than separated, distant pavilions, a condensed organization of hospital spaces was more optimal. These typological conclusions were advanced through various international networks. Apart from older institutions that only slowly adopted these new insights, such as the *Office International d'Hygiène Publique* or the *League of Nations Health Section*, the *International Hospital Conference* organized in Atlanta in 1929, was of particular importance.[231] The conference marked the founding of the *International Hospital Association*, which aimed to join and represent all national committees on hospital construction in one single overarching foundation. With its roots and much of its experts in and from the USA, the organization was much more critical of the pavilion hospital. One of the keynote speakers at the conference, for instance, directly discussed 'les aspects économiques et administratifs du plan des hôpitaux,' arguing that costs were much lower in more compact hospital designs than in the pavilion typology, and that the former also offered improved possibilities for the everyday workflow of the hospital.[232] The *Association belge des Hôpitaux* quickly became a member of the *International Hospital Association*, and used its own journal, the already discussed *L'Assistance Hospitalière*, to advocate the new typological solutions of the corridor and high-rise hospital. [233] The Belgian *Conseil Supérieur d'Hygiène* followed suit, publishing new guidelines that loosened the obligation for architects to rigidly adhere to the pavilion typology in their design.[234]

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231. See 2/A.

232. See Goldwater (1929). The Association also published its own periodical *Nosokomeion*, in which the same argument was repeatedly made. See e.g. *Nosokomeion*, 1930, 1, pp. 186-189.

233. See 2/S for this periodical's publication on the older *Hôpital des Noirs* of Léopoldville.

234. Bruyneel (2009).

Besides these economic and medical reasons, this paradigm shift in hospital planning was also closely tied to broader changes during the interbellum in the architectural discipline. The emergence and spread of the Modernist movement, with its functionalist design approach and aesthetics, further fueled the increasing onus in hospital planning on an efficient and 'user'-oriented design. Even more so than the 19th century pavilion typology, the new high-rise and corridor hospital aimed to turn healthcare facilities into a hyper-functional, industrialized version of the 'machine à guérir.' Echoing the idea of Le Corbusier's 'machine à habiter,' hospital planners increasingly stressed that the ideal hospital floorplan should take into account circulation patterns of its various groups of 'users,' and the architectural aesthetics of the hospital should follow and express this far-reaching functionalism. Yet, healthcare design not only followed the design tenets of Modernism, they also actively shaped and spread them. As several architectural historians have discussed, the design and materiality of hospital infrastructure, and sanatoriums in particular, greatly impacted the 'machine aesthetics' and materiality of the Modernist paradigm.[235]
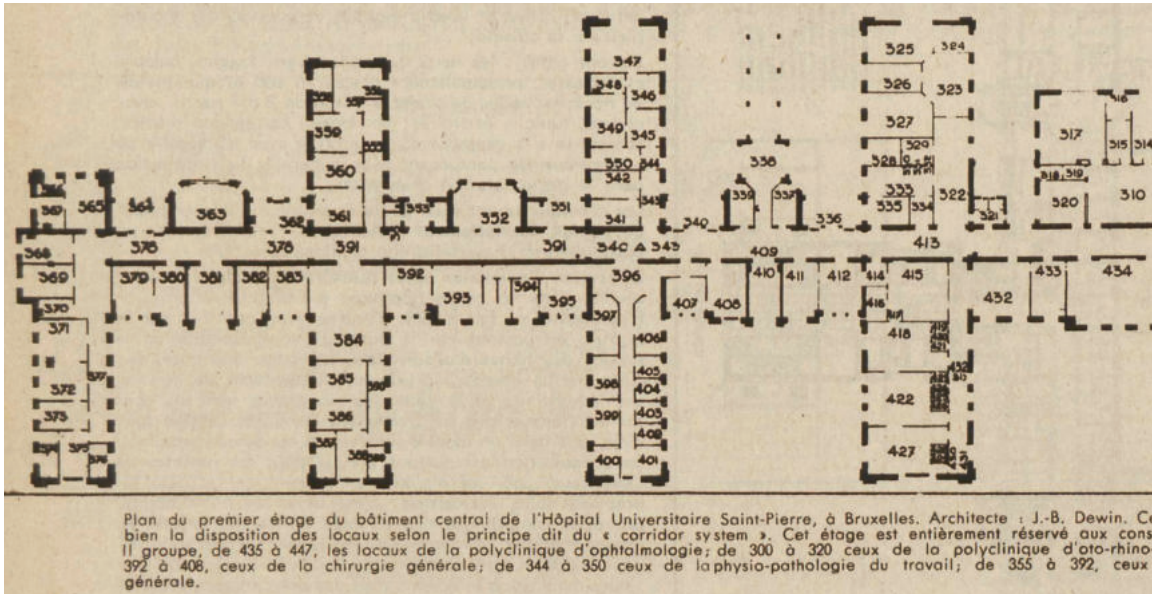
Just as in other countries, Belgian architectural journals played a key role in nurturing this mutual development, not only by advocating the shift away from pavilion hospitals towards more compact and thus more functionalist hospital typologies, but also by putting emphasis on Modernist machine aesthetics. The architectural magazine *Bâtir* forms a prime example of this process. It intensely published on hospital construction, with no less than four special issues on hospitals and multiple additional articles on the latest hospital projects throughout its existence from 1932 until 1940. Its most influential special issue, edited by renowned hospital architect Gaston Brunfaut and Belgian healthcare policymakers, was even taken over in its entirety as an 'édition supplémentaire' of *L'Assistance Hospitalière*.[236] In his editorial of the issue, Brunfaut focused on the latest typological 'principes de l'architecture hospitalière,' referring to European best practices of corridor and high-rise hospitals to make his case.[237] Stating that 'par un ordre nouveau, un style nouveau,' he argued how such novel typologies were to go hand in hand with a Modernist architectural language. Nevertheless, he emphasized that rather than aesthetics, the main reason for this shift remained the more 'user'-driven functionality necessary in a public building with a social purpose:[238]

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235. Borasi et al. (2012); Campbell (2005); Colomina (2018, p. 10).

236. *Bâtir*, 35, 1935; *L'Assistance Hospitalière*, numéro supplémentaire, 1935.

237. In an earlier issue, architectural critic P.L. Flouquet, who played a major role in the interwar spread of the Modernist movement in Belgium, made a similar argument for a typological shift, in an article tellingly titled 'Principes de l'architecture hospitalière: hôpitaux pavillions ou hôpitaux hôtels?' *Bâtir*, 18, 1934, pp. 675-676. On the impact of Flouquet on the Belgian architectural scene, see the ongoing PhD research of architectural historian Irene Lund and her contribution in Van den Bossche et al. (2018).

238. *Bâtir*, 35, 1935, p. 395. For a short biographical overview of Gaston Brunfaut's and how he translated his 'affinity with the ideology of CIAM,' into his extensive (social) oeuvre, see Lagae (2001, p. 136). For a more extensive discussion, see Basyn (2013).

Plan du premier étage du bâtiment central de l'Hôpital Universitaire Saint-Pierre, à Bruxelles. Architecte : J.-B. Dewin. C...
bien la disposition des locaux selon le principe dit du « corridor system ». Cet étage est entièrement réservé aux cons...
II groupe, de 435 à 447, les locaux de la polyclinique d'ophtalmologie; de 300 à 320 ceux de la polyclinique d'oto-rhino...
392 à 408, ceux de la chirurgie générale; de 344 à 350 ceux de la physio-pathologie du travail; de 355 à 392, ceux...
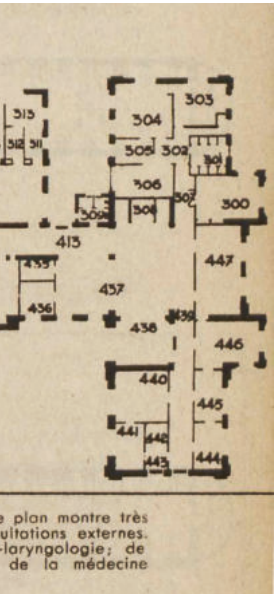générale.

Image 45 . New corridor and high-rise hospital typologies in the metropole

Through architectural periodicals such as *Bâtir*, new hospital typologies that went hand in hand with a Modernist idiom became popularized in the metropole. An important figure in this process was architect Gaston Brunfaut. On the one hand, he emphasized his own oeuvre, and especially the famous *Centre Anti-Cancéreux,* a modernist design that was featured in several international hospital manuals (see e.g. Alheit, Hassenpflug & Vogler, 1951). On the other, he also emphasized best practices of other architects. His widely circulating piece on *Principes de l'architecture hospitalière*, for instance, extensively discussed the *Hôpital Saint-Jean* and *Hôpital Universitaire Saint-Pierre*, both well-known metropolitan examples of the corridor typology (see also Dickstein-Bernard et al. (2005)). These hospitals were designed by architect Jean Dewin, an acclaimed hospital expert who had designed multiple other medical complexes, including the *Institut Chirurgical Berkendael,* and who had collaborated with the renowned Dr. Depage on the influential publication *La construction des Hôpitaux* (which was also featured in Cloquet's architectural manual, see 2/A).

Left: *Hôpital Saint-Jean,* excerpt from Gaston Brunfaut's *Principes de l'Architecture Hospitalière* in *Bâtir*, 35, 1935 p. 391.
Right   *Centre Anti-Cancéreux,* Cover of *Bâtir*, 75, 1939.

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-laryngologie; de
de la médecine

LE CENTRE UNIVERSITAIRE
ANTI-CANCEREUX
(INSTITUT BORDET-HEGER)
ARCH. G. BRUNFAUT & S. JASINSKI
ENTREPRISE GENERALE
S. A. G. MOMMAERTS & Cie
(PHOTO PHOTINDUS)

FEVRIER 1939

DANS CE NUMERO :
LA NOUVELLE LOI SUR
LA PROFESSION
D'ARCHITECTE.
HOPITAUX ET
CLINIQUES MODERNES.

BATIR

4 FR. LE NUMÉRO • REVUE MENSUELLE ILLUSTRÉE
D'ARCHITECTURE, D'ART ET DE DÉCORATION

> *Le plan de l'hôpital paraît se limiter, aujourd'hui à l'instar de la solution américaine,*
> *à la solution verticale. Ce serait une erreur que de l'identifier pourtant à une solution*
> *esthétique ou à une préférence sentimentale inspirée des courants actuels de l'architecture*
> *moderne. Les mobiles de celle-ci sont, rappelons-le, surtout d'ordre rationnel parce que*
> *d'ordre social suivant sa raison d'être première.*

Despite these metropolitan changes during the 1930s, the pavilion typology remained the prime solution in Belgian Congo. Especially during the interbellum, there were of course very practical reasons for this.[239] With limited skilled labor and little resources available, high-rise buildings long remained unfeasible in the colonial building sector: apart from the exceptional *Hôtel Métropol* realized in Matadi in 1930, the first real high-rise building in Congo was the *Forescom*, constructed only in 1946 in Léopoldville.[240] As a result, the colonial administration showed little interest in the novel hospital typologies and refused to tap into, or contribute to, the transnational networks through which this knowledge was circulating. When in 1933, for instance, the *International Hospital Association* offered to Dr. Duren, already head of the Brussels Medical Department, to lead their 'section s'occupant des hôpitaux en régions tropicales et colonials,' he refused.[241] Dr. Duren was one of the most internationally connected figures of the colonial administration, and his objections were symptomatic of Belgian Congo's rather opportunistic approach of 'selective borrowing.'[242] Not only did he fear that both the annual contributions and the pricey international conferences would cost too much, he also noted that both 'les questions relatives aux hôpitaux, notamment à leur organisation, leur rôle social, etc.., sont examinées régulièrement' by the Belgian *Conseil Supérieur d'Hygiène* and 'aux séances de l'Office International d'Hygiène publique de Paris.'[243] When importing new information on new hospital planning methods demanded an active contribution of the Belgian colonial authorities, they were quick to turn down the offer and continue to 'selectively borrow' from perhaps less progressive, but much more easily available sources of knowledge distribution.

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239. Even though overall hospital construction declined as building activities decreased after the *Plan Franck*. The construction of the *Hôpital des Noirs* in Costermansville, for instance, likely only started after 1939, yet was still a clear example of a pavilion typology hospital. See plans in AA/GG 15819.

240. See Lagae (2002, pp. 79, 334). On the booming building sector of Léopoldville and Congo during the 1950s, see Fivez (2018a).

241. Reports of conferences of the *International Hospital Association* suggest that this section was never effectively organized. AA/H 4390, Note from *Directeur Général a.i.* of the Brussels Medical Department to the Minister of Colonies, 22 August, 1933.

242. See 2/A.

243. Ibid.

Even after the post-war period, the pavilion typology remained the main design approach for hospitals in Belgian Congo, both in the rural *réseau hospitalier* as in most colonial towns.[244] Nevertheless, colonial officials and architects did start to consider novel Western hospital planning principles for the colony's largest urban hospital projects. If the USA had already become the leading authority on hospital construction in the West, Belgian Congo now also started to actively 'borrow' from the country. In 1946, the USA had launched the Hill-Burton Act, which, much like the Ten-Year Plan's Medical Program, foresaw the construction of a hierarchic healthcare network with multiple similar medical centers.[245] The plans for the Act and its buildings circulated around the world, and quickly reached Congo too. Already during the war, a certain Dr. Brutsaert, a former Belgian colonial doctor, had become the medical attaché of the Belgian embassy in New York.[246] He established close connections with America's leading healthcare consultants, including Marshall Shaffer, an acclaimed hospital expert. As the main architect of the U.S. Public Health Service's 'hospital facilities section,' he had devised and published multiple plans of several, differently sized, medical complexes, publications he gladly shared with the Belgian attaché. After the war, Brutsaert returned to Congo and Belgium, and handed over this information to the Medical and Public Works Services, which not only became more acquainted with large-scaled planning solutions for a hierarchic healthcare network, but also with the latest hospital design and construction principles.[247]

America remained an important source of information for the colonial administration throughout the 1950s. Dr. Duren, for instance, used Dr. Brutsaert and the Belgian embassy in America to directly get into contact with Marshall Shaffer and his service. The correspondence confirms how personal contacts between various government services and officials continued to be crucial channels of knowledge transfer in the post-war period. The Belgian ambassador repeatedly referred to the earlier relationships that had been established between Belgian doctors and the U.S. Public Health Service when inquiring for the necessary information, likely as a strategy to compensate for the rather asymmetrical way of knowledge borrowing Belgian Congo's healthcare officials were conducting with the USA. In the end, this worked, and several bibliographies of new standard publications on hospital construction and psychiatric institutions reached Belgian Congo, as well as the spatial guidelines of the American Public Health Service (Image 46).

244. For the rural hospital network, see 3/L. For smaller urban centers, see e.g. the hospitals for Africans in Boma, Coquilhatville, Matadi or Luluabourg. Plans in respectively AA/GG 7203; 3/M; AA/3DG 982; AA/GG 963.

245. Knoblauch (2013)

246. *Biographie belge d'outre-mer* 1968, p. 129).

247. See correspondence in AA/H 4470 between Shaffer and Brutsaert.

Image 46 . Knowledge exchange between Belgian Congo and the USA's medical services

Through personal contacts established via embassies, the Belgian colonial administration succeeded in 'selectively borrowing' an extensive amount of information on the latest hospital planning principles from the USA - including this publication from architect Marshal Shaffer on standardized and modular hospital construction.

AA/H 4470.

L'ARCHITECTURE D'AUJOURD'HUI
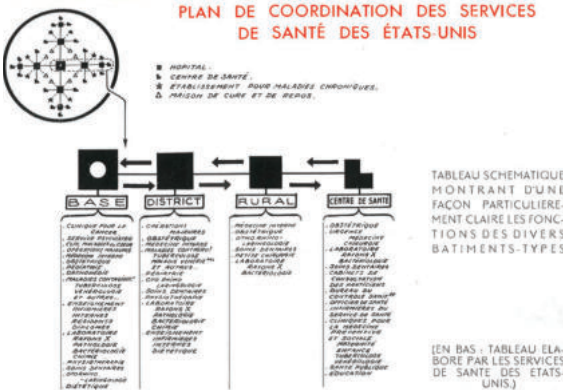
COORDINATION DES ÉLÉMENTS FONCTIONNELS

CI - CONTRE : VUE ISOMETRIQUE DE L'HOPITAL DE CUMBERLAND STREET (NEW-YORK). - LORIMER RICH, ARCHITECTE. I. ROSENFIELD, ARCHITECTE EN CHEF.

(Doc. Architectural Record.)
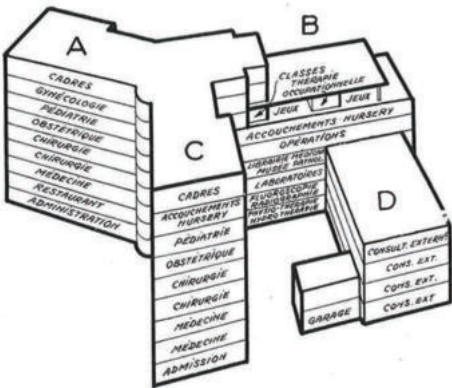
L'ORGANISATION DE CET HOPITAL EST TRES CARACTERISTIQUE POUR MONTRER LES TENDANCES AMERICAINES RECENTES, NOTAMMENT EN CE QUI CONCERNE L'ETABLISSEMENT DE RELATIONS DE NIVEAU ENTRE SERVICES D'HOSPITALISATION ET DE MEDECINE.

A et C. HOSPITALISATION. — B. SERVICES DE DIAGNOSTIC ET DE THERAPEUTIQUE.

D. CONSULTATIONS EXTERNES.

PLAN DE COORDINATION DES SERVICES DE SANTÉ DES ÉTATS-UNIS

SURFACES ET POURCENTAGE DES SURFACES POUR LES DIVERS SERVICES DE L'HOPITAL GÉNÉRAL.

Image 47 . Circulation of American hospital planning principles

The USA's hospital construction policies, planning principles, and spatial standards circulated across the world. Even francophone journals such as *L'Architecture d'Aujourd'hui* explicitly referred to the American healthcare network as well as best practices of new corridor and high-rise hospital typologies that had already become commonplace in the USA during the interbellum.

Above:
L'Architecture d'Aujourd'hui, 15, 1947, p. 9.

Below:
L'Architecture d'Aujourd'hui, 15, 1947, p. 34.

That the Belgian colonial administration focused heavily on American hospital planning practices was neither surprising nor unique. The country's extensive hospital construction program under the Act circulated widely, not only in medical and public health journals, but also in architectural magazines, even outside the Anglophone world. The renowned French periodical *L'Architecture d'Aujourd'hui* – well-known in and beyond the Belgian architectural scene – forms a case in point. In 1947, the magazine published a special issue on 'La Santé Publique,' which included an article devoted to the 'Plan de coordination des services de santé des Etats-Unis' (Image 47).[248] In an addendum to the issue, Marshall Shaffer himself directly congratulated the journal's editors for bringing hospital architecture under international attention:

> *La rédaction de l'architecture d'Aujourd'hui", dans son ensemble, doit être félicitée pour le travail accompli fin de mettre au point les numéros consacrés aux problèmes de l'architecture hospitalière. Il est encourageant de constater que ces questions sont maintenant du domaine international.*

Architect Paul Nelson, who wrote the preface to the special issue, might be the explanation for this direct connection between Shaffer and the French magazine. As an American-born architect active in France and specialized in hospital construction, he was attached to both the French *Ministère de la Sante Publique* and the U.S. Public Health Services, where he established close connections with 'mon ami, l'Architecte Marshall Shaffer,' as he noted in his preface.[249]

During the 1950s, knowledge on the latest hospital planning principles was thus becoming widespread in both the Belgian metropole and the colony. Nevertheless, this expertise remained predominantly based on Western – and often American – hospital design practices, while information on modern hospital construction in a colonial context, for colonized 'users' and for different climatological conditions, remained scarce. There were some noticeable exceptions. One particularly important figure was Henri-Jean Calsat, a French architect who 'authored a substantial number of seminal hospital projects, both in France and abroad,' and who functioned as a consultant for various colonial rural hygiene projects.[250] Perhaps his most famous project was the *Hôpital Général*

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248. Next to multiple pieces on particular hospital projects, the issue included an extensive 'bibliographie hospitalière,' which referred to Francophone and Anglophone standard works and hospital manuals such as Rosenfield (1951); Thoillier (1947); Walter (1945).

249. *L'Architecture d'Aujourd'hui*, 15, 1947, p. 2. P. Nelson (1933) was a renonwned hospital expert, who had already during the interbellum developed hospital designs for Lille (on which he published in collaboration with the *International Hospital Association*), Ismaila, and several general prototypes. His most influential project was undoubtedly the hospital of Saint-Lô, which I will discuss in more detail below. For a more extensive biographical discussion of Nelson's oeuvre, see Abram and Riley (1990).

250. Lagae (2013c, p. 2). Apart from Calsat, the most renowned architects that designed hospitals in Africa were undoubtedly Edwin Maxwell Fry and Jane Drew (see Jackson and Holland (2014, pp. 161-162)). Other examples are e.g. French architects Lods, Le Caisne, Aynes and Thierrart, whose design for a corridor hospital in Conakry featured in *L'Architecture d'Aujourd'hui*, 1957, 70 and the special issue of *Techniques et Architecture*, 1952, 5-6, p. 66-67 on *L'Architecture intertropicale*.

Image 48 . *Hôpital Général de Brazzaville*, by Henri-Jean Calsat

Calsat's design of a new hospital in Brazzaville, the capital of Afrique Equatorial Française, was featured in several architectural journals, including *L'Architecture d'Aujourd'hui*. It became known not only as a best practice of how to apply the latest hospital planning principles in a colonial context, but also as a prime example of 'tropical modernism,' a new architectural idiom that became widespread from the 1950s onwards, as explained below.

L'Architecture d'Aujourd'hui, 84, 1959, p. 16.

in Brazzaville, a French prestige project that, as will become clear, was known in Belgian Congo as well. That it was precisely Calsat's design that received wider attention and was featured in multiple issues of *L'Architecture d'Aujourd'hui*, again was likely not a coincidence, as the architect was co-editor for the special issue on public healthcare and held personal ties with the journal's editorial staff.[251]

Apart from the work of Henri-Jean Calsat, however, which mainly circulated within the Western architectural milieu, publications on colonial hospital design remained scarce. This meant colonial architects designing medical infrastructure in Belgian Congo still faced a hard time finding direct sources of inspiration. They could, however, draw on a rapidly growing network of knowledge exchange on construction in the tropics. Architectural historians have marked the emergence of this multifarious network as the official 'founding moment' of 'tropical architecture,' a broad label that connects the 'work of modernist practitioners in a number of locations outside the West.'[252] Fueled by both stylistically Modernist examples of and technical know-how, this new architectural idiom also found its way to the Belgian colony, through various international networks and conferences, but also through more direct connections between colonial administrations.[253] Engineer Dangotte, head of the Congolese Public Works Service, maintained close contacts with George Atkinson, who was in charge of the British *Tropical Building Division*, a London-based research unit focused on construction in the tropics. About every three months, the unit published their *Colonial Building Notes*. This brochure conveyed their latest findings, ranging from architectural best practices, building details, climatic research, instructions on material use in the tropics, and other construction know-how. As a prime example of 'selective borrowing,' Dangotte ensured through his networking with Atkinson that he personally received a copy of the notes. To nurture this connection, Dangotte organized visits for Atkinson to Léopoldville, and saw to it that he was received by high-ranked authorities upon his arrival. Next to the *Notes*, Atkinson shared other information as well, including bibliographical overviews of the library of the London *Ministry of Works*, and several papers Atkinson had personally written to present on international conferences.[254]

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251. *L'Architecture d'Aujourd'hui*, 1959, 94 ; 1947, 15. In her unpublished master's dissertation, architect A. Cornelis (2009) has discussed that the periodical not only had an explicitly 'geographical scope,' but also that the selection of particularly African projects was likely part of a strategy by the editors of corporate self-promotion.

252. Le Roux (2003, p. 337). At the same time, authors such as Jackson (2013) and Chang and King (2011) have noted that the origins of 'tropical architecture' can be traced back much further, to the 19th century.

253. For an extensive overview of the introduction of 'tropical modernism' in Belgian Congo through the oeuvre of private architect Claude Laurens, see Lagae (2002, pp. 255-354). For state examples, see e.g. De Meulder (2006). Various networks, institutions, conferences and travelling 'global consultants' were important for the spread of this new architectural style. I will return on some of these, especially the *Union Internationale des Architectes* in the last section of this chapter.

254. On Atkinson in general, see Chang (2016, pp. 165-202). For correspondence between Dangotte and Atkinson regarding knowledge exchange and visits, see AA/3DG 680. As Johan Lagae (2002, p. 298) discussed, Atkinson was also known in Belgium through the architectural periodical *Rythme*, which published on his *Notes*.

Image 49 . Colonial Building Notes

Engineer Dangotte, the head of Belgian Congo's Public Works Service, and Georges Atkinson, who led the British research unit on tropical construction, maintained a close correspondence throughout the 1950s. As a result, the Belgian administration received multiple issues of these *Colonial Building Notes,* which included technoscientific know-how, but also spread the new idiom of 'tropical modernism' through pictures with architectural solutions adapted to the tropical climate, such as *brises-soleil,* verandas, or the clever composition of plans and sections.

AA/3DG 680.

From best practices of Western hospital design and stylistic examples of 'tropical modernism,' to burgeoning technoscientific expertise on tropical construction methods, colonial architects in Belgian Congo could borrow from a variety of sources of knowledge as inspiration for colonial hospital design. Remarkably, these emerging connections of knowledge exchange were not only forged through official networks such as international conferences or institutions, but just as much through individual contacts.[255] Hospital planning guidelines were borrowed directly through personal connections with foreign administrations, architectural publications heavily depended on the existence of individual relations and corporate interests, and technoscientific exchange was shortcutting conferences on tropical architecture through individual correspondence. Whether through personal networks or through institutionalized circulation, however, translating this often Western-based design knowledge and methods to a colonial context and its African 'users', was still not at all straightforward. As the next two sections discuss, be it on the level of the city, the typology, the room or the diagram, this translation produced ambiguous results and necessitated new or reinterpreted architectural solutions.

255. While personal connections have not received widespread attention amongst architectural historians, architectural historian Itohan Osayimwese (2019, p. 264) has made a similar argument: 'Personal networks played a crucial role in the shift from colonial regimes of power in which expatriate engineers and (later) architects were part of a cadre of essential colonial functionaries to the late colonial and post-colonial rise of the architect and planner as transnational expert.'

<u>Architectural translation of the 'politique de transition'</u>

The end of the second World War had marked the emergence of the development paradigm. Social progress for the colonized was slowly becoming a central aim of colonialism in itself, even though still tightly and paternalistically controlled by Western colonial powers. Much more than during the interbellum, colonial policymakers aimed to provide public healthcare as a genuine welfare service for this "developing" African population, and hospital infrastructure thus had to fulfill a crucial role in this process. During the preparation of the new *Hôpital des Congolais* in Léopoldville, this underlying goal was made explicit, as state officials requested that Ricquier adapted his hospital design to such a 'politique de transition.'[256]

Yet, designing within this changing post-war reality of colonial policymaking, and for this fluid group of African 'users,' proved a difficult balancing act. It required architect and policymakers to find compromises between the various, often opposing motives behind the hospital, which often played out at different scales. At the urban scale, similar to how contemporary Western hospitals were being designed as 'monuments of the welfare state,' the *Hôpital des Congolais* had to become a symbolic billboard to the outside world of Belgian Congo's new policy approach of 'welfare colonialism.'[257] That was also one of the reasons why the colonial authorities commissioned the hospital to private architect Ricquier in the first place. The Medical Services explicitly lobbied to the Minister and the *Gouverneur Général* to attribute the hospital to Ricquier to provide counterweight to the large hospital that was under construction in Brazzaville:[258]

> *J'ai été informé de ce que le Département aurait passé avec Monsieur Ricquier, architecte urbaniste, chargé de mission par lui, un contrat pour l'exécution de travaux, à Léopoldville [...]. Si le programme de ces travaux n'est pas encore tracé d'une manière définitive, ce qui n'est pas le cas je pense, je me permets d'insister pour que priorité soit accordée à la construction de l'hôpital des Noirs [...]. Le moment est venu d'ajouter cet élément à nos œuvres médicales. Il est trop généralement admis que le Congo est en avant sur les autres Colonies dans cet ordre de réalisations. En réalité, l'avance que nous avions effectivement est en passe d'être reprise par nos voisins et, à vrai dire, en matière d'établissements médicaux, cette Colonie n'a pas grand'chose à montrer de neuf et au goût du jour. Le Gouvernement Général de l'Afrique Equatoriale Française a fait commencer à Brazzaville la mise en chantier d'un vaste centre médical et j'ai pu*

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256. AA/H 4472, *Compte-rendu de la réunion*, 27 February, 1951.

257. Wagenaar (2006, p. 35).

258. AA/3DG 195, Note from *Médecin en Chef* Dr. Thomas to *Gouverneur Général*, 16 December, 1948. Next to the hope to lend the necessary architectural prestige to the hospital by recruiting a private architect, the authorities also simply counted on his knowledge and experience to realize 'certains projets dont la conception semblait dépasser la compétence du personnel qualifié dont dispose l'Administration de la Colonie.' As Johan Lagae (2002) has shown, the state also offered him the project of the new Governor's residence, but, ironically, the architect turned down this proposal because he feared the project would never be realized. In the end, however, it was the Residence that was executed, whereas Ricquier's own hospital remained a pipedream. AA/3DG 195, Letter from Georges Ricquier to *Ministre des Colonies*, 23 June, 1949.

me rendre compte de visu [...] d'une particulière ampleur vis à vis duquel nous n'avons rien à la même échelle où que ce soit au Congo.

Ricquier did indeed envision the hospital as an important architectural landmark within his ambitious *Plan d'Aménagement*. His urban plans aimed to transform the colonial capital into a majestic imperial metropolis, and he deployed grand boulevards or 'parkways' bordered by imposing public buildings and monuments to materialize his vision of 'le Grand Léo.'[259] The *Axe du Palais de Dominion* was the architect's main showpiece, which symbolically connected Kalina, the administrative headquarters of the Belgian colony, with the new residential areas planned for the Congolese population. The broad vista was even to surpass the French *Champs-Elysées* in scale and grandeur, a feat Ricquier eagerly emphasized in his drawings (Image 50).[260]

In one of his urban schemes, the architect positioned the future hospital for Congolese at the end of this central urban axis. While this decision at first glance seemed to symbolically express the increasing importance the colonial authorities attributed to the welfare and health of the colonized population, the location of the hospital ironically marked an explicit return to the segregationist policies of the interbellum. Ricquier situated the new hospital complex far south of the *cordon sanitaire*, in close proximity to the new *cités indigènes* that were being planned and built from the late 1940s onwards. At a time when prominent colonial medical policymakers such as Dr. Duren were starting to question racial segregation through the *politique de rapprochement*, Ricquier's plan for the new hospital and his broader urban masterplan completely discarded these new policy recommendations and instead continued to express a clear hierarchic colonial order.

Although Ricquier's plans would never be realized, the hospital still had to be designed as an important flagship hospital. As a result, it could, of course, not be built according to the outdated principles of the pavilion typology. At the typological scale, the architect and policymakers long searched to determine which typology best expressed the new colonial welfare policies, while also being the most appropriate to the African 'user.' Different typologies were explicitly weighed up against each other, and the almost oversimplified way in which social "progress" of the colonized population was paired with historical typological developments in hospital design, bears witness to the way beliefs of historical linear convergence were imbricated within multiple facets of colonial policymaking and architecture. While the high-rise hospital offered the most efficient connections between medical services, 'ces avantages incontestables ne constituent pas dans le cas présent (hôpital pour africains, desserte par africains, mœurs et particularités

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259. Beeckmans (2013b, p. 105).
260. Bruno De Meulder (2000, pp. 159-169) has even compared the (overly) monumental project to the urban schemes of Albert Speer in Berlin.
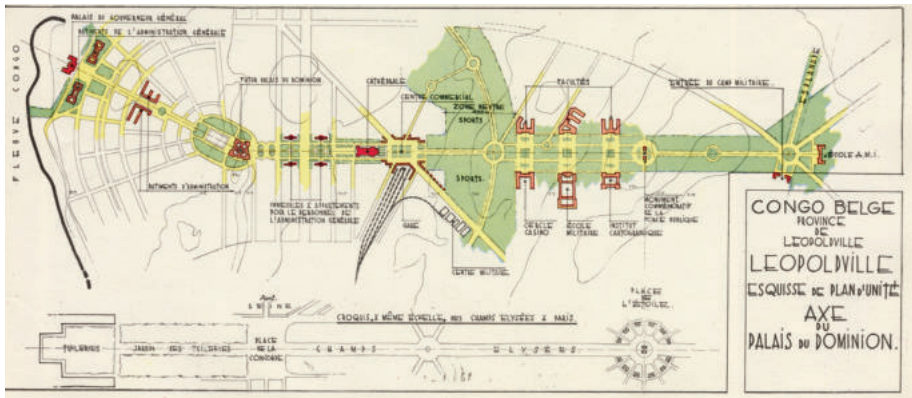
Image 50 . Location of the *Hôpital des Congolais* along the *Axe du Palais de Dominion*

Through majestic vistas, Ricquier's *Plan d'Aménagement* for Léopoldville aimed to transform the colonial capital into 'Le Grand Léo.' The most prestigious planned boulevard was the *Axe du Palais de Dominion*, connecting Kalina to new Congolese residential areas. At the end of this vast parkway, Ricquier symbolically situated the new hospital for Congolese (zone 4 in image below), confirming the importance planners and policymakers accorded to healthcare infrastructure in the medical model colony.

Note how, similar to Elisabethville and Coquilhatville, the *politique de rapprochement* was never properly implemented in Léopoldville. In contrast, the location of the *Hôpital des Congolais* sought to correct the old out-of-place hospital for Africans (see 2/M) and meant a return to a more rigid racial segregation of medical infrastructure.

Above: Ministère des Colonies, *Urbanisme au Congo belge,* 1950, p. 48.
Below: AA/3DG 1310.

des malades, spécialisation réduite du personnel indigène) une contrepartie suffisante à l'augmentation du coût d'investissement.' And while the much more 'simple' and less expensive pavilion typology, on the other hand, was seen as the 'adaptation parfaite au caractère des malades et à la qualité du personnel indigène,' this could not make up for the large surface area and ponderous logistics of the outstretched typology. Eventually for both his first and second proposal, Ricquier opted for a hybrid typology with several, multi-story wings, which was considered the perfect trade-off. Colonial policymakers believed this approach 'respecte, *tout en les modelant*, les mœurs et particularités des malades (hygiène, discipline, notion de temps, administrabilité, etc…).'[261] Concrete explanations why colonial policymakers saw particular typologies as better suited to the lifestyle and mores of Africans 'users' were not explicitly mentioned during the preparation of Léopoldville's *Hôpital des Congolais*. Clear clues are nevertheless scattered throughout the archives. European disdain surfaced in correspondence of several other colonial hospitals, as Africans were belittled and seen as unable to handle the latest medical equipment, unfit to utilize elevators, or too primitive to navigate in large, modern building complexes.[262]

That African 'users' and modern hospital architecture were seen as incompatible, may also explain why several members of the local administration questioned Ricquier's Western sources of inspiration. In his first proposal of 1950, Ricquier heavily drew from those Western practices most readily available to him, such as 'des grandes cités de l'Amérique du Nord ou dans celui des luxueuses installations de Stockholm.'[263] While the *Gouverneur Général* and the *Médecin en Chef* acknowledged these sources of inspiration were easily accessible, they doubted whether they were the most appropriate for the context of Léopoldville. During the design process, they repeatedly suggested that Ricquier 'parcoure les Colonies africaines pour y examiner surface certains hôpitaux modernes déjà établis et s'inspire de ces réalisation pour concevoir l'hôpital de Léopoldville.'[264] With the budgetary problems of the Ten-Year Plan, however, the authorities soon decided such a study trip was financially unfeasible. Practical concerns such as budget were again opportunistically prioritized over the import of locally relevant or appropriate knowledge, and Ricquier's second proposal of 1954 remained directly inspired by Western best practices he was most familiar with (Image 51-52).

At the architectural scale, however, this forced Ricquier to labor over the development of new design strategies to translate Western hospital planning principles to the colonial 'politique de transition.' Overall, Ricquier aimed to

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261. AA/H 4472, Note from *Ingénieur-Directeur Adj.* J. Greindl to *Gouverneur Général*, 29 November, 1956, own emphasis, to highlight how typological choices were considered a vital component in the 'politique de transition.'

262. See e.g. the quotes already referred to in 3/S: AA/3DG 193, Letter from *Secrétaire Général* G. Sand in name of the *Gouverneur Général* to the Minister of Colonies, 13 October, 1952.

263. AA/H 4472, Note from Dr. Duren, 17 January, 1950.

264. Ibid.

design a hospital space that was flexible enough to adapt over time, reflecting the fluid development of its African 'users.' This could already be seen in the way the façade was to reflect this alleged "progress." When policymakers commissioned the architect, his mission was 'd'étudier un hôpital parfaitement agencé et parachevé dont on ne réaliserait actuellement qu'un parachèvement sommaire, strictement à l'échelle de l'évolution indigène actuelle.' In later stages, the finishing of the façade could be improved step by step, 'suivant la mesure d'évolution de la population.'[265]

Yet by far the most important measure through which the private architect materialized the 'politique de transition' was situated at the scale of the room. It relied on a reinterpretation of the modular, standardized use of structural building elements, a common practice within the Modernist movement. Both of Ricquier's proposals were organized along a grid-like structure of beams and columns of which the dimensions were based on the room as the basic unit. In the first proposal, the use of this structure also allowed to raise the building one level above the ground floor – a design decision that later proved unfeasible due to the composition of the soil. With this *plan libre* – which Le Corbusier had coined as one of his five main architectural principles – Ricquier's proposal clearly echoed contemporary Modernist principles of designing a building on *pilotis*. In Belgian Congo, however, this openness also fulfilled additional purposes of flexibility. As became clear during discussions between policymakers and the private architect, the open plan 'pourrait être réservé aux indigènes pour la préparation particulière des aliments,' a practice of hybrid governance that had become increasingly commonplace in the older hospital of Léopoldville-Est.[266] More importantly, however, this modular structural framework opened up possibilities to flexibly respond through time to the varying social and "moral" stages of its African users. Modules could be joined together to install large dorms that provided standards similar to the older colonial pavilion hospitals,[267] but could also, in future years, be separated to provide more comfortable, and more private spaces. Or, as Ricquier explained to government officials:[268]

> *Le module adopté permet à présent plusieurs dispositions analogues à celles actuellement employées dans les hôpitaux existant à la Colonie, tout en sauvegardant l'avenir qui nécessitera de se rapprocher des normes courantes en rapport avec l'évolution de la population urbaine.*

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265. AA/H 4472, *Compte-rendu de la réunion*, 27 February, 1951.

266. See 2/S; AA/3DG 195, *Compte-rendu de la réunion*, 20 March, 1951. While it is unclear whether the private architect or the state officials stated this, this was an explicit argument against those advocating against the use of *pilotis*.

267. Wheras the wards of Léopoldville's old *Hôpital des Noirs* offered around 5,5 m² per patient, Ricquier's first and second proposal offered around 7 and 6,5 m² for the largest wards. This number would change little with additional walls separating the various units, but it would increase the privacy and rest offered to patients. In an even later stage, beds could be removed to increase truly private bedrooms.

268. AA/H 4472, *Compte-rendu de la réunion*, 30 January, 1952.

Ricquier's first proposal was believed to be adapted to the social "progress" of its African 'users,' as a hybrid typology with multiple multi-story buildings. As the architect explained, this proposal was inspired by American best practices, but also by Swedish examples such as the Söder Hospital, a famous complex that was also extensively discussed in periodicals such as *L'Architecture d'Aujourd'hui*.

Image 52 . *Hôpital des Congolais*: proposal 2

Ricquier's second proposal also constituted a hybrid typology consisting of several multi-story wings in response to the assumed needs of African 'users.' Now, however, he drew much more explicitly on (metropolitan) best practices of the corridor typology such as the French *Hôpital de Lorient* or the Brussels *Hôpital Saint-Jean*.

Above: *Bâtir*, 15, 1934.
Below: AA/3DG 195.

Image 53 . Modular design and 'plan-libre': Proposal 1

The structure of Ricquier's first proposal was based on a rectangular module of 5,40 x 5,40 meters, dimensioned to provide space for a ward of 4 beds. Columns on each corner of the unit not only structured the design, but also offered a 'plan-libre' both on the ground level and on higher stories. The open spaces on the ground floor offered opportunities for hybrid Congolese practices of cooking, gathering and shelter, while the flexible grid of columns and beams, with its 'locaux disponibles' was designed to allow policymakers to adapt the hospital spaces through time and in response to the social "progress" of the Congolese population.

AA/3DG 195.

While the second proposal no longer entailed the idea of a raised building on *pilotis*, it did redeploy many of the same spatial principles of modularity and phased development. Its structural framework was again based on a basic unit, now of eight beds. This module could be joined or separated based on particular phases of the *politique de transition*. In a first stage, the hospital would only contain large 64-bed wards that combined eight modules, separated by 'cloisons basses vitrées,' despite the fact that colonial policymakers such as Dr. Duren were well aware that this did not conform to metropolitan standards. Over time however, these partitions could easily be replaced by more durable walls to offer more privacy, as the alleged social development of the African patients progressed:[269]

> [The design] *ne comporte que des salles communes, ce qui semble d'ailleurs parfaitement compatible avec le degré actuel d'évolution de la population noire de Léopoldville. Lorsque cette population comprendra un nombre plus élevé d'évolués, la possibilité existe de modifier quelques travées de huit lits en chambres individuelles ou chambres communes de 8 lits isolées.*

The approach of using a modular basic unit as the structure of a flexible design was of course not at all new. As said, it was central to Modernist design practice, but had also become widespread in hospital design. While the *Centre Anti-Cancérieux* by Gaston Brunfaut, a well-known Belgian hospital that deployed a structural grid calculated for a future 'charge supplémentaire' of additional stories may have served as a source of inspiration, Ricquier's design is especially reminiscent of the renowned Saint-Lô Hospital of Paul Nelson.[270] This design was based on a modular unit in which various sizes of dormitories could be inserted, and a curtain façade enabled the architect to flexibly change the plan while maintaining a uniform architectural exterior – a design intervention Ricquier also deployed in both his proposals. Partly because of the possibility for varying, customized bedrooms, but also due to its expressive architectural qualities, the Saint-Lô hospital was widely praised at the time, featuring multiple times in *L'Architecture d'Aujourd'hui* and functioning as a prime example of the typological post-war shift in Western Europe. Even today, architectural historian Donato Severo describes the design as a milestone in the 'search for humanism in architecture' and an early example of a hospital 'architecture at the service of care' rather than cure.[271]

The striking similarities between Ricquier's *Hôpital des Congolais* and Nelson's Saint-Lô Hospital adds new historical and geographical layers to the debate of cure versus care. In a colonial context, the same design measures that Nelson mobilized to develop a humanistic architecture, now became spatial instruments for colonial policymaking. From shelter for African practices of cooking, to an increasing level of privacy and comfort through time, the spatial translation of the

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269. AA/H 4472, *Compte-rendu de la réunion*, 17 February, 1954.

270. For a contemporary technical description of the *Centre Anti-Cancéreux*, see *La Technique des Travaux,* 1939, January, p. 124; *L'Emulation,* 1939, 4, pp. 53-65.

271. Severo (2020, p. 67).
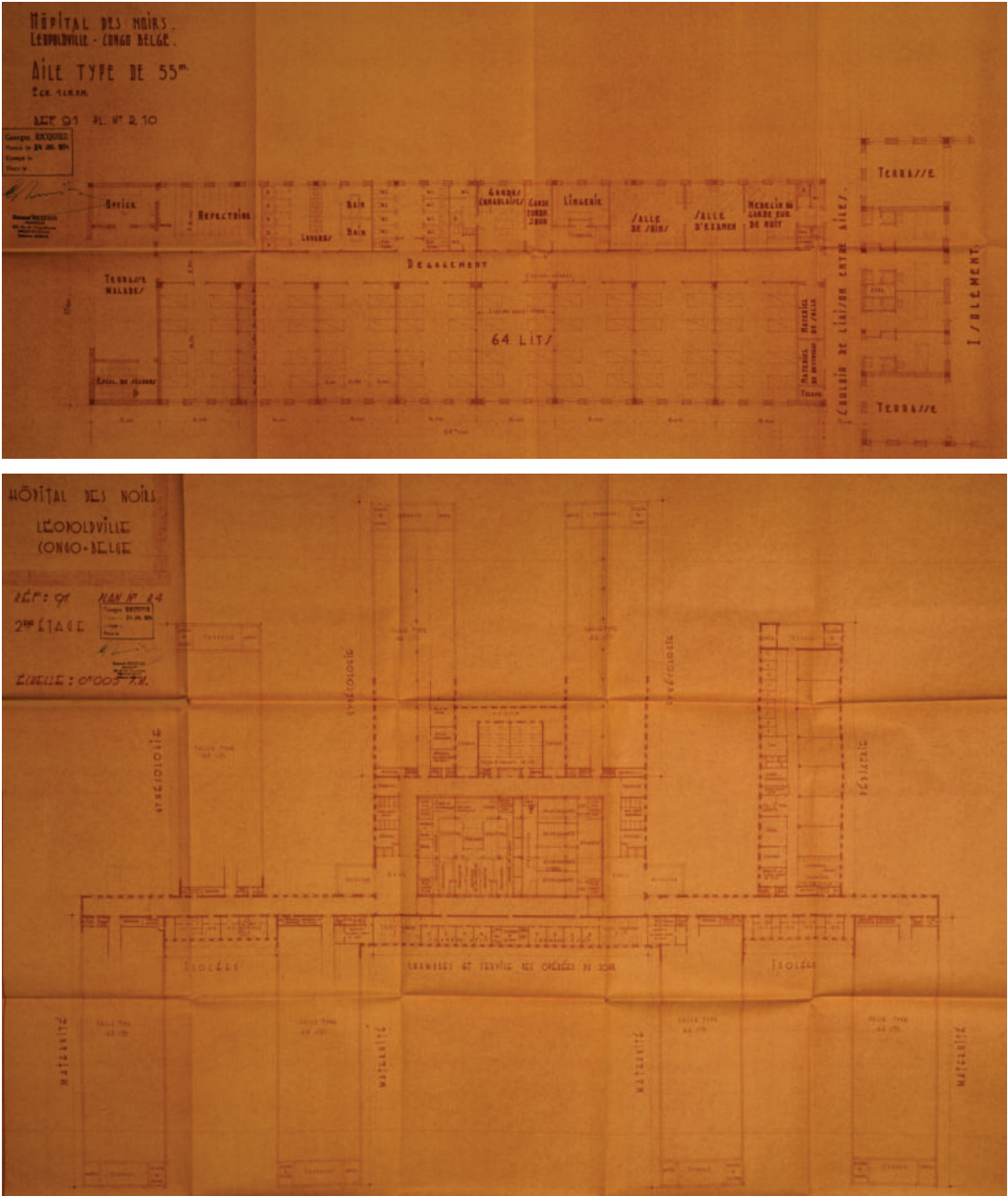
Image 54 . Modular design and 'plan-libre' - Proposal 2

Just as in the first proposal, Ricquier's second design was based on a basic modular unit, now measuring 6 by 8,7 meters and providing space for 8 beds. A standard 'aile-type' counted 8 of these units, together with several additional auxiliary spaces. This rational rectangular structure again offered flexibility crucial to the 'politique de transition,' as it could easily be adapted through time with additional partitioning walls to respond to the hospital's socially "progressing" African 'users.'

AA/3DG 195.
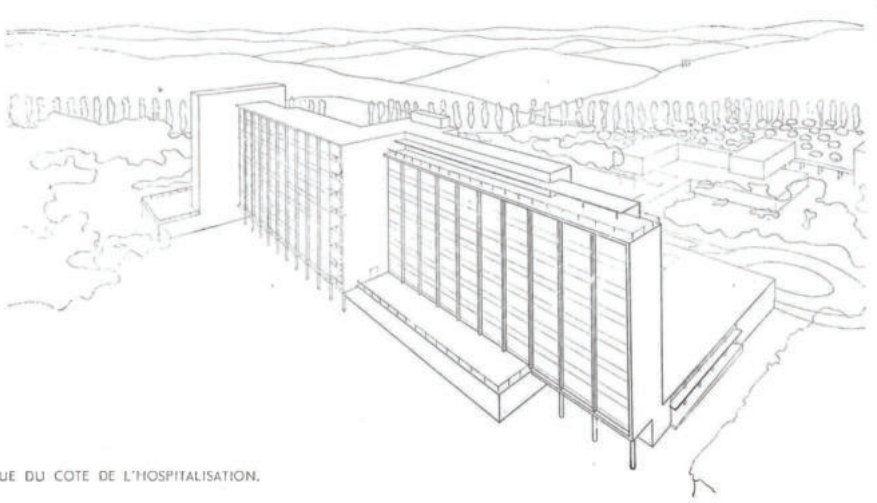
VUE DU COTE DE L'HOSPITALISATION.

HOPITAL-HOSPICE   DE   SAINT-LO

Fig. 1. — Hôpital de Saint-Lô. Arch. Paul Nelson.
Unité de soins type avec chambres au sud et services au nord. Les poteaux de la façade sud sont indépendants de la claustra modulée
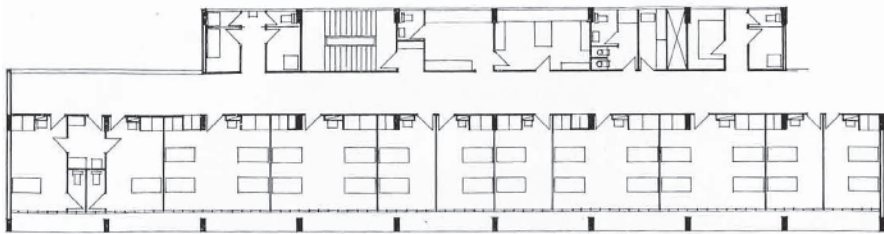à 0,60 m, ce qui laisse une grande liberté pour disposer les cloisons transversales.

Image 55 . The modular floor plan and curtain façade of the Saint-Lô Hospital

Both images are excerpts of relatively contemporary sources praising Paul Nelson's design. While the perspective above was featured in an issue of *L'Architecture d'Aujourd'hui,* the plan below is derived from a report co-authored by architect Calsat on *La Banalisation des Services d'Hospitalisation.* It portrayed the modular design and the use of a curtain façade in the Saint-Lô hospital as a best practice, not only for Western hospital planning, but in particular for hospital construction in 'les pays en voie de développement.' Published in 1963, however, the report could not have served as a source of inspiration for colonial hospital architects. As I will discuss in the concluding section of this chapter, it forms a prime example of the extensive knowledge production on hospital architecture that emerged at the eve of African independence, and was thus in vain for colonial hospital construction.

Above: *L'Architecture d'Aujourd'hui,* 1947, 15, p. 42.
Below: Bridgman, Calsat and Hervouët, *La Banalisation des Services d'Hospitalisation*, p. 4.

'politique de transition' clearly went beyond the logics of efficient cure and aimed to tailor hospital spaces to the particular and shifting needs of African 'users.' Nevertheless, if the design offered a form of customized care, it was still part of the very paternalistic 'politique de transition.' This policy not only defined "progress" from a purely Western perspective, the promised improvements in terms of space and comfort were also only administered in a belittlingly piecemeal way. The floor designed for Congolese évolués provides a case in point: as a secluded compartment containing 'des chambres pour un ou deux lits pour les nègres évolués,' including private bathrooms, it offered a privacy and luxury to African patients unseen until then in Belgian Congo. [272] However, the wing would only be constructed at a later stage, and once again, the hospital architecture was designed for such phased execution, with its foundations and structure consciously calculated to support the later addition of this extra, separate fourth floor. In this sense, Ricquier's hospital design is indicative of the much broader unwillingness or inability of the Belgian colonial government to truly listen to the increasingly critical voices amongst the African upper class and especially the Congolese *assistants médicaux indigènes*. This neglect would ultimately lead to a politically frustrated group of évolués who, unheard, ushered in a 'hurried race to independence' that was unanticipated by the colonial authorities.[273] If Ricquier's proposals at first glance seem to materialize a pivotal shift in colonial hospital architecture from efficient cure to customized care and 'user'-oriented design, the way this shift was restrained and slowed down through an incremental construction process in fact reveals just how paternalistic the 'politique de transition' still was.

This becomes even more clear when the local Public Works Service replaced Ricquier and the design developed from an *avant-projet* into a concrete building project. Through schemes of the various 'phases de réalisation,' state architects kept the immediate expenses manageable, and rigorously planned the piecemeal execution of the 'politique de transition.' Considering its slow and controlled execution, this policy would likely only have exacerbated the political frustrations amongst the Congolese upper class when the hospital would have been effectively realized. Yet these schemes are remarkable for another reason as well. They show that it were not only Modernist design principles of open, flexible plans or modular grids that allowed to materialize the 'politique de transition.' The import of diagrams, a design tool that was becoming increasingly widespread in the West, also facilitated the phased construction of the 'politique.' And just as the *plan libre* or modular structures were adapted to this new colonial context and its African patients, colonial architects and policymakers also adjusted the way these diagrams could be deployed within hospital planning to serve additional motives of segregating the logistics of various groups of 'users.'

272. AA/H 4472, *Compte-rendu de la réunion*, 14 July, 1954.

273. Vanthemsche (2012, p. 89).
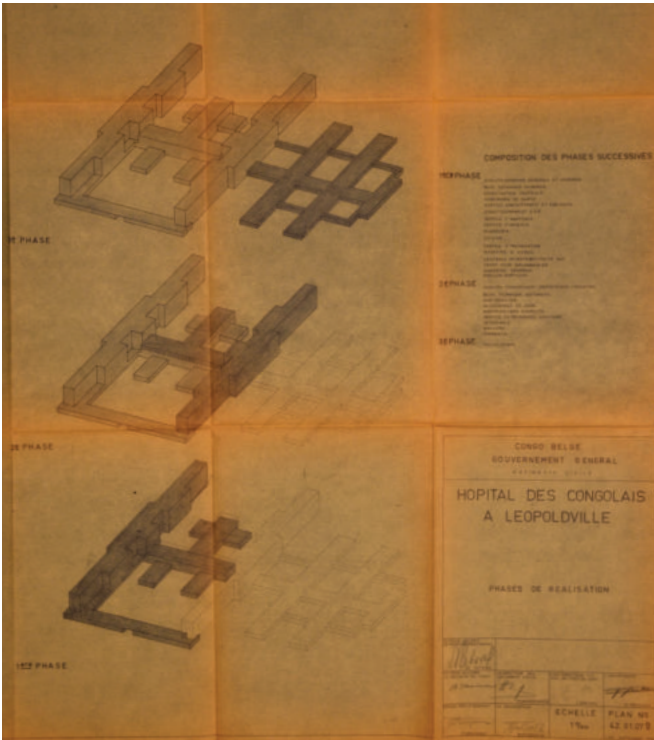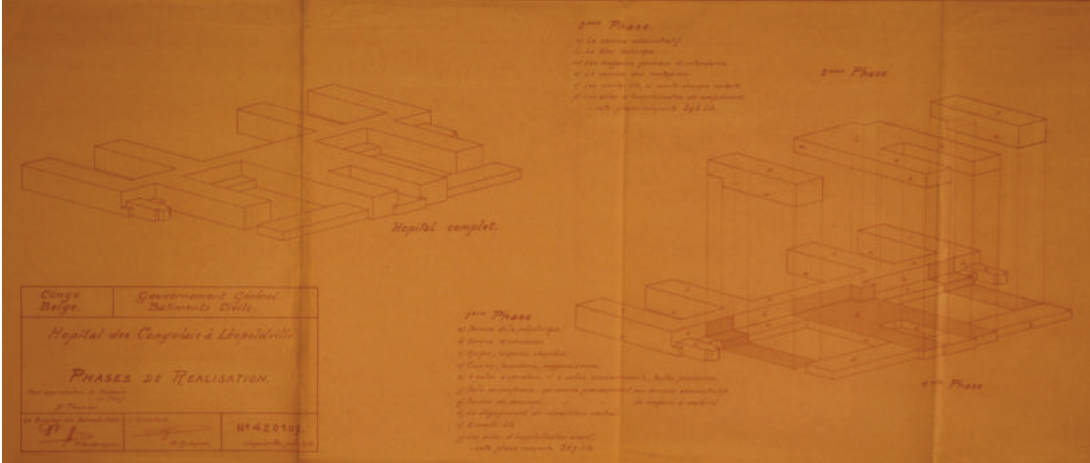
Image 56 . *Phases de réalisation*: Proposal 2

Ricquier's second proposal (above), and its later adaptations by the colonial Public Works Service (below) both included diagrams describing the design's various 'phases de réalisation.' This gradual construction process not only allowed the building costs to be more evenly spread, but also materialized the 'politique de transition,' through the incremental improvement of spatial medical standards, comfort and finishing.

Above: AA/3DG 195.
Below: AA/H 4472.
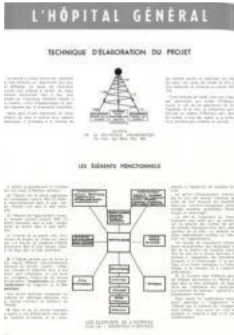
L'Architecture d'Aujourd'hui,
15, 1947, p. 32;
General hospital planning.
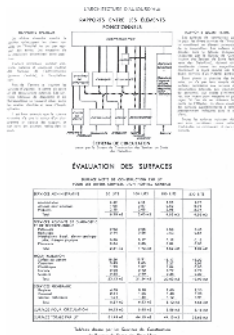
L'Architecture d'Aujourd'hui,
15, 1947, p. 33;
General hospital planning.

L'Architecture d'Aujourd'hui,
15, 1947, p. 34;
New York, USA.
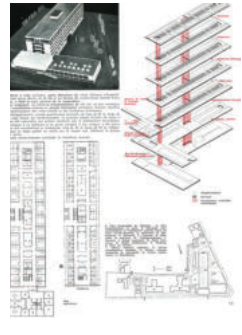
L'Architecture d'Aujourd'hui,
84, 1959, p. 13;
Mantes-La Jolie, France.
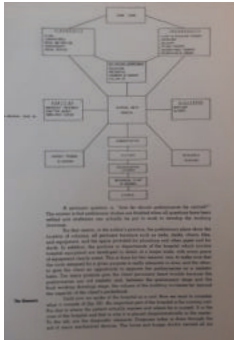
Rosenfield, 1951, p. 39;
General hospital planning.
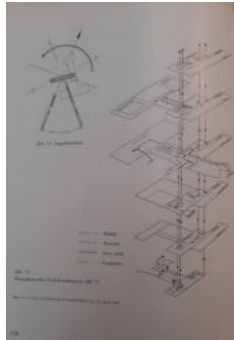
Alheit et al., 1951, p. 124 ;
Sau Paulo, Brasil.
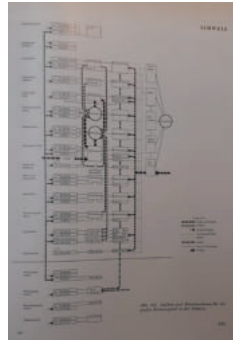
Alheit et al., 1951, p. 435;
Swiss regional hospital.
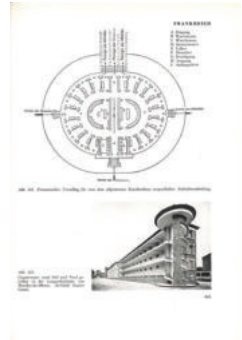
Alheit et al., 1951, p. 445;
General hospital, France.
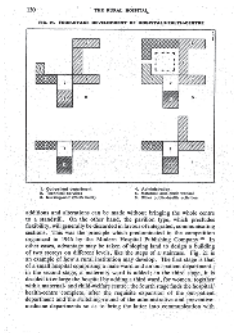
Bridgman, 1955, p. 130;
General hospital planning
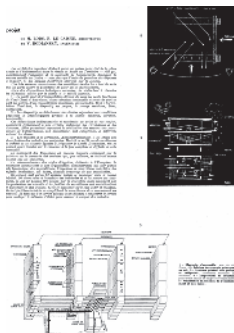
Techniques et architectures,
5-6, 1952, p. 67 ;
Conakry, AOF
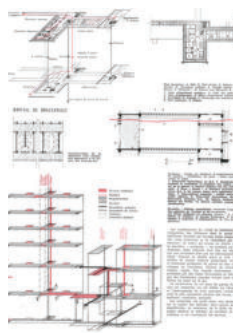
L'Architecture d'Aujourd'hui,
84, 1959, p. 18;
Brazzaville, AEF
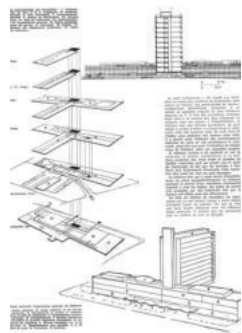
L'Architecture d'Aujourd'hui,
84, 1959, p. 61;
Sau Paulo, Brasil

Image 57 . Post-war emergence of diagrams in hospital planning

From the end of the Second World War onwards, diagrams became increasingly used in hospital planning both as tools to faciliate the design itself, and as a visual means of communicating the internal organization and logistics of the hospital. As multiple colonial powers undertook large healthcare programs in colonial territories, this architectural practice was not limited to Western hospital planning, but was also increasingly deployed for colonial hospitals.

Diagrams in colonial hospital design

By the 1930s, the outdated beliefs in miasma as the source of contamination had been completely replaced by the germ-theory. Medical science increasingly acknowledged how different pathologies were often interrelated, and collaboration between various hospital services started to become more important within hospital planning. With its separated buildings, the outstretched pavilion typology not only failed to facilitate this new approach to healthcare, but also caused personnel to cover time-consuming distances from one pavilion to the other. With the much closer proximity of various hospital services, the new high-rise and corridor typologies provided a better healthcare solution, yet also implied an increasingly complex building program. Architects and hospital planners were forced to think about which services to group, juxtapose, or separate within the increasingly large and complicated hospital complexes. If they were to design the most efficient 'health factories,' stream-lined hospital logistics and smooth user trajectories between various services had to be studied, designed and choreographed to perfection.

Diagrams and organizational charts offered a powerful architectural tool to face this challenge, and allow architects to both analyze and communicate design solutions. The emergence of the diagram in hospital planning again went hand in hand with a broader shift within Modernist architecture. After diagrams had originated within managerial and economic sciences in the early twentieth century, their use quickly spread to the architectural discipline as well. Routing charts in industrial settings allowed managers and architects to map out and visualize logistical trajectories, which was of particular use in Taylorist industrial production processes. Together with the works of Austrian philosopher Otto Neurath and his plea for a widely accessible 'pictorial language,' this functionalist approach to the design of industrial buildings heavily impacted the members of the CIAM and Le Corbusier in particular, who quickly became convinced of the architectural usefulness of charts and diagrams.[274]

The practice quickly spilled over to hospital design. As architectural historian Bruno Reichlin has argued, Paul Nelson was one of the pioneers here, deploying diagrams to develop an architecture of 'radical functionalism.'[275] Diagrams allowed to map the necessary relations between healthcare services, and outline the logistic flows of various groups of 'users' – patients, visitors, doctors, nurses, auxiliary staff, ... – between them. This facilitated important design decisions, ranging from which services to place in close proximity, where to chart corridors, which elevators to attribute to particular 'user' groups, and how to determine the

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274. On the use of diagrams in Le Corbusier's work, see Vidler (2000). On a more general overview of diagrams in (Modernist) architecture, see e.g. Pai (2002).

275. Reichlin (1990, p. 140). As Knoblauch (2013) has discussed, diagrams were also heavily deployed in the American context, in particular by famous hospital designers Skidmore, Owings and Merrill.

dimensions of these various logistic spaces. At the same time, diagrams helped architects to visualize and communicate these design decisions in an accessible way to lay officials and clients. If this new design method thus simplified the functionalist design of hospitals, it also supported the authority of the designer. With a clear-cut visual language, diagrams provided a scientific legitimacy and an 'aura of objectivity' to an architect's decisions.[276] This was all the more true for hospital planning. With its background as Taylorist tools for efficiency, the diagram supported the image of a 'machine à guérir' that was more than ever based on science-based, functional criteria.

In Belgian Congo, however, diagrams served additional and ambiguous purposes. Diagrams in which 'user' trajectories were disentangled for a more efficient logistic functioning automatically rendered visible where Europeans doctors or African staff, visitors and patients would move within the medical complex, and where their paths would cross. This made it possible for colonial architects and officials to plan racially segregated logistics within hospital facilities in a much more pervasive way, and on a scale unseen before.[277] In both proposals for the *Hôpital des Congolais*, Ricquier and his successors of the colonial administration indeed made design efforts to racially segregate trajectories and logistics. In the first proposal of 1950, the several multi-story building blocks together formed an larger rectangle that structured the hospital's major circulation patterns (Image 51). The various hospital buildings automatically divided an external circuit destined for service logistics from the internal 'zone de silence,' destined for patients and visitors.[278] The design of the entry pavilion – or 'polyclinique' – forms a prime example of these separated circulation patterns (Image 58). African patients had to enter an internal courtyard through a desk for 'filtrage,' where their 'fiche' was checked before access was given. They then could follow the wide internal barza, which served not only as hallway but also as waiting room for the different examination services. At the same time, this internal circuit was also destined for the African staff, as all the refectories, toilets or 'infirmeries' destined for 'personnel congolais' gave out onto the courtyard. In contrast, the entrances of all functions intended for European doctors were oriented towards the outer barza. Such separation between physicians and other staff was not completely uncommon in Western hospital planning either, but was pushed to the extreme here.[279] With strictly divided circulation spaces, and separated refectories and sanitary facilities, the plans reveal how Ricquier consciously designed racially segregated hospital logistics.

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276. Van De Maele (2019, p. 117).

277. The use of such a 'schéma des circulations' for a 'taylorisation' of segregated logistics also occurred in other public typologies, such as the architect Van Nueten's design of the Governor's residence. See Lagae (2002, p. 223).

278. AA/H 4472, *Note d'observation au sujet du plan d'implantation*, by Georges Ricquier, 31 May, 1951.

279. For examples, see the various publications portrayed in Image 57.
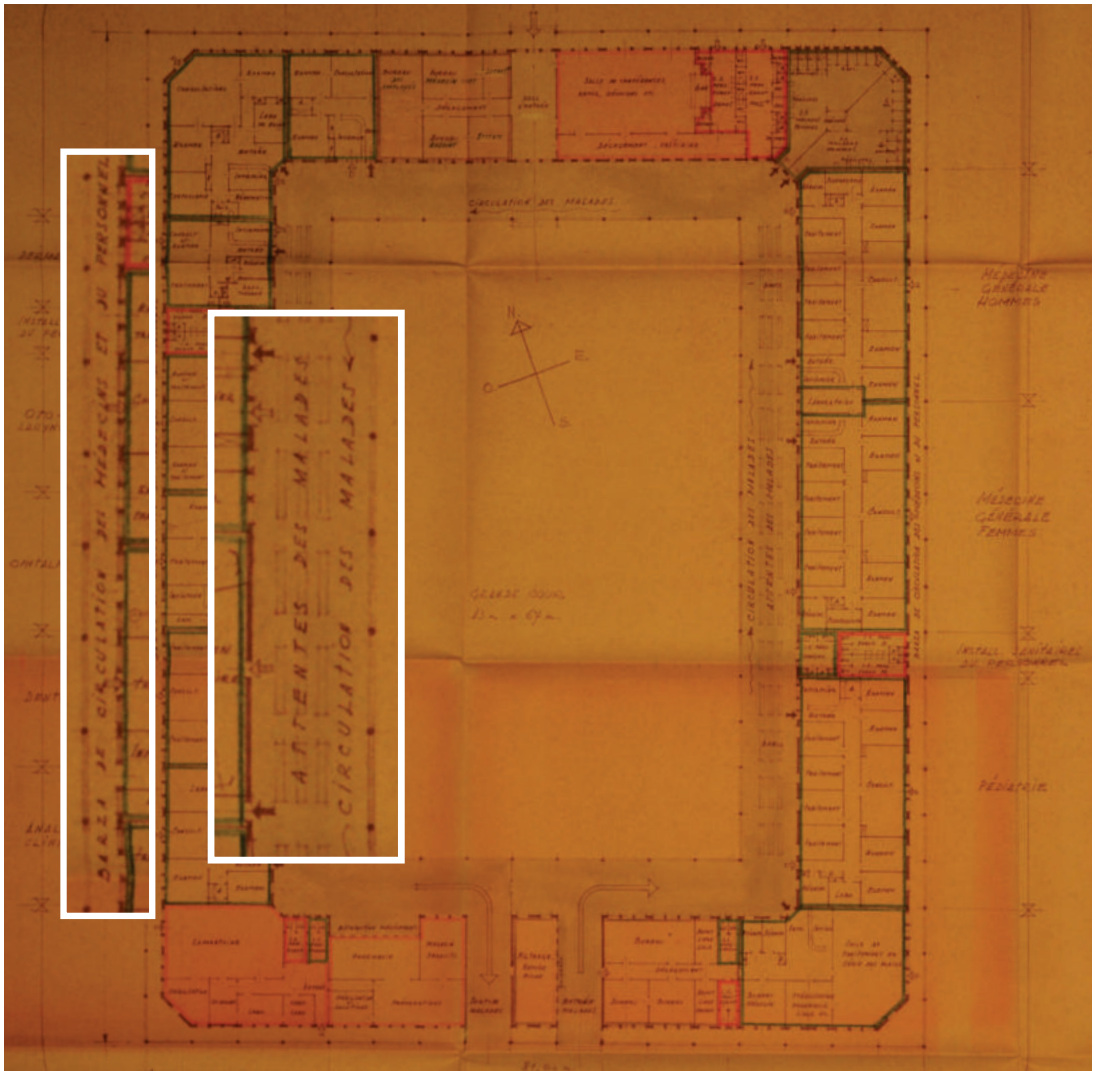
Image 58 . Racially segregated circulation: Proposal 1

Just like the general site plan of the complex, the circulation in the *polyclinique* of Ricquier's first proposal was divided into an internal courtyard and an external *barza*. The former was not only destined for circulation of African patients, but also for African staff, as all facilities directly gave out onto this internal hallway. In contrast, all spaces for European personnel were oriented towards the outside of the building, generating de facto racially segregated circulation patterns. That this was a conscious design strategy becomes clear when inspecting this edited version of the building plan, where spaces for Africans were specifically indicated with green pencil, and those for Europeans in red, which at on glance reveals how these spaces were oriented in opposite ways.

As explained below, the diagrammatic annotations on the original copy nevertheless slightly camouflaged this tightly segregated organization, by marking the external circulation space as a 'barza de circulation des médecins et du personnel,' and the internal courtyard as 'circulation des malades.'

AA/3DG 195.
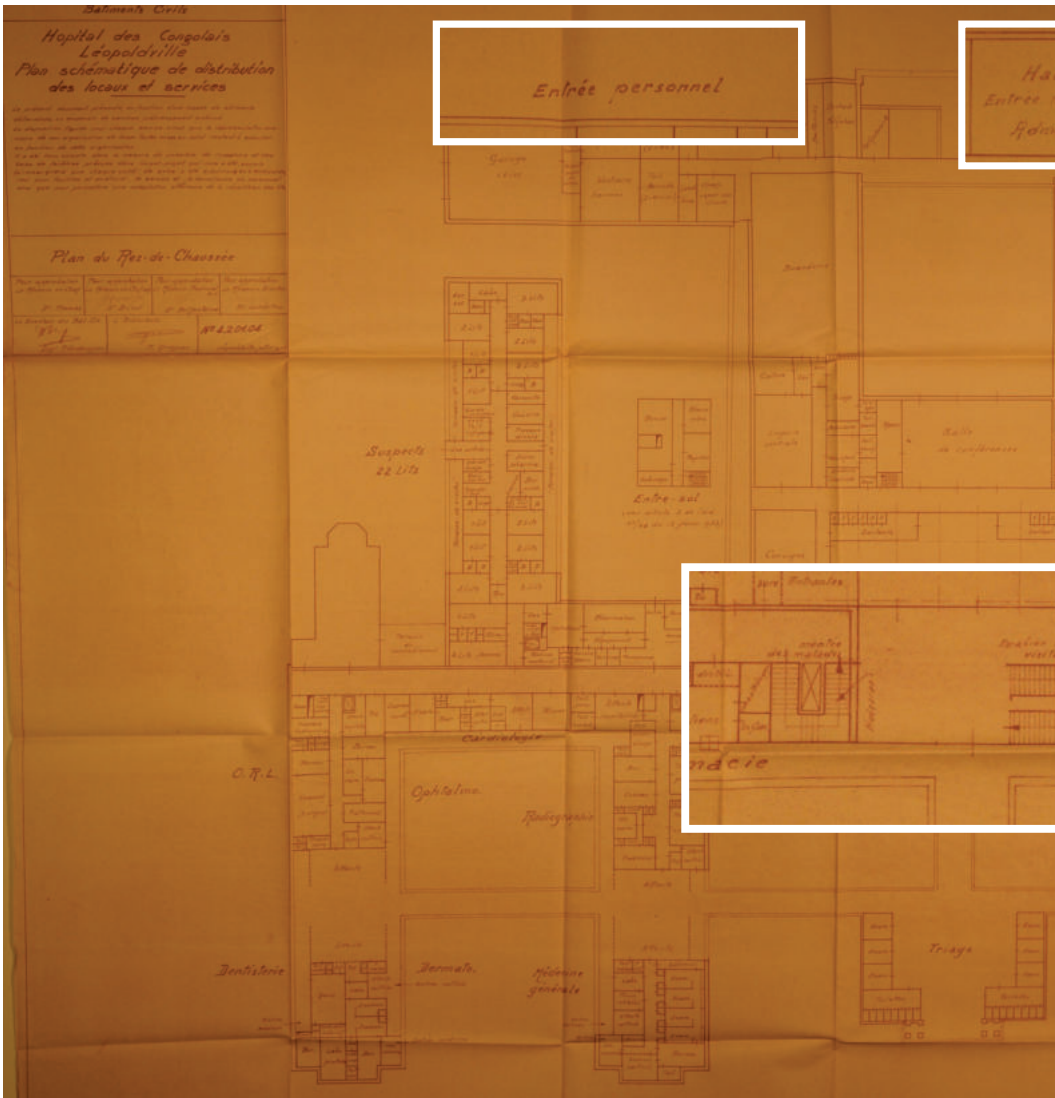
Although the second proposal was a completely different design, Ricquier and the government architects that succeeded him again seemed to have strived for racial segregation of 'user' trajectories. The proposal was based on metropolitan best practices of the corridor hospital, yet showed some crucial local adaptations. In the West, a single central hallway normally formed the logistical backbone of the corridor typology, and trajectories for patients, visitors, medical staff and logistics were often only isolated at the exits, elevators or staircases.[280] In the *Hôpital des*

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280. See e.g. *Hôpital Saint-Jean* and *Hôpital Universitaire Saint-Pierre* or the *Hôpital Beaujon*, all three best practices well known in Belgium through the periodical *Bâtir*. Exceptions to this single corridor of course existed, e.g. the University Hospital in Ghent.
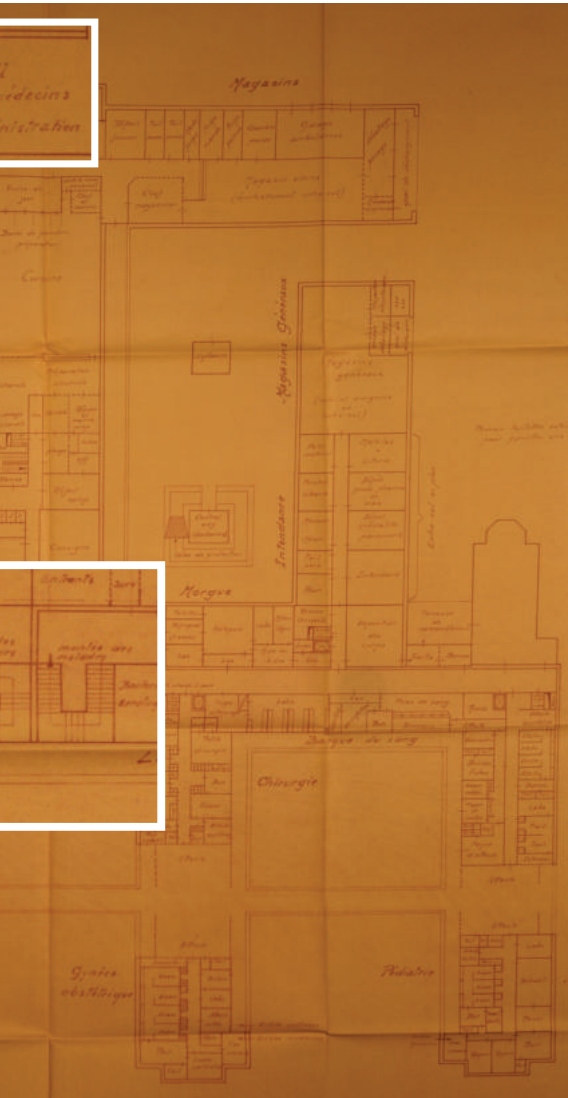
Image 59 . Racially segregated circulation: Proposal 2

With a double corridor, a visitor's stairway cutting the central hallway in two, and divided entrances for African and European personnel, both Ricquier and his successors clearly aimed to minimize contact between Africans and Europeans. The diagrams depicting logistical flows within the complex, which will be discussed below, suggest the same conclusion.

Above: AA/3DG 195.

Congolais, however, the architect subdivided circulation into a 'hall public de dispersion' and a service corridor for the 'dégagement répartiteur.'[281] This already separated staff from African visitors and patients, and an entrance pavilion oriented towards the Congolese *cité* functioned as 'centre de triage,' ensuring that patients and visitors were steered onto the right trajectories. Ricquier also made sure that circulation of European doctors and African personnel overlapped as little as possible, by providing different entrances at the opposite wings of the complex. When the local Public Works Service of Léopoldville took over, they adopted his plans, but went even further (Image 59). Whereas Ricquier's

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281. AA/3DG 195, *Plan Hôpital des Noirs, Rez-de-chaussée,* by Georges Ricquier, 22 July, 1954.

'hall public de dispersion' still functioned as a single, unified axis, they inserted a sealed-off stairways for visitors as a way to cut the corridor in two. Because of this intervention, the complex now had two clear sides: one easily accessible from the entrance for African personnel, and the other for European doctors, ensuring contact between European and Africans was minimized as much as possible.

That these design decisions were consciously made to promote segregated logistics seems to be confirmed by an 'Organigram Général' the government architects drew to present the adapted design to their local superiors (Image 60, left). The diagram depicts the logistical flows of various 'user' groups, ranging from doctors and African medical personnel, to patients, visitors, laundry services and 'cadavres.' According to the drawing, the trajectories of doctors and African medical personnel never crossed the stairways of visitors, African patients neatly followed the additional hallways, and contact between Europeans and Africans would remain limited to the bare minimum. In reality, of course, these design decisions would have likely been in vain, and would have meant little more than additional costs. Analysis of the plans instead suggests that circulation in the hospital would have been much messier when effectively realized. Aimed at collaboration between various healthcare services, the complex program of the corridor hospital meant that flows of people of course crosscut at key points such as the central hallways, intersections, waiting rooms or some of the entrances. From the first floor onwards, the double hallway system was even abandoned as doctors and African staff were forced to follow the same 'dégagement de service.'[282] Ambitions to plan racially segregated hospital logistics had been facilitated by the use of diagrams during the design process, but proved impossible to attain.

Yet at the same time, it seems that the government architects were not oblivious to this. The diagrams drawn by the Léopoldville-based state architects suggest that they strategically deployed this tool to mask how the design failed to fully separate the circulation of African and European 'users' – perhaps as a way to get approval from local policymakers who often held rather conservative views regarding racial segregation.[283] On the ground floor, European doctors of course also had to reach the opposite side of the complex, and the shortest way to do so was along the same trajectory African medical staff would follow – a circulation route the diagram conveniently omitted. Moreover, from the first floor onwards, logistic flows of auxiliary services by African personnel such as food provision or laundry collection were no longer fully traced out, concealing how these flows would overlap with the movement of European doctors. The diagram thus presented an oversimplified, and overly segregated image of the hospital's logistics, that was likely consciously drawn up to please or reassure higher-ranking officials.

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282. AA/H 4472, *Plan Hôpital des Congolais, Plan du 1ᵉʳ étage,* by Architect Maurice Grosjean, September, 1956.

283. See 3/S and 3/M.

A similar strategic use of drawings had also been used during the presentation of the first proposal, although much less explicit. The first design had been completely by the hand of Georges Ricquier, who, in contrast to his local successors, was a Brussels-based private architect recruited by the metropolitan Ministry. As a result, he was in all likeliness mainly concerned with ensuring approval from colonial policymakers of the Brussels department. As outspoken proponents of the 'politique de rapprochement,' many of these officials were more progressive than their counterparts in Belgian Congo. Like the local government architects had deployed diagrams to disguise imperfectly segregated flows to their superiors, Ricquier now used diagrammatic annotations to convince Brussels policymakers of the opposite argument. In the already discussed 'polyclinique,' for instance, entrances for the facilities of European and African staff were oppositely oriented, creating the de facto racial segregation explained above. Nevertheless, Ricquier's annotations convey a different distinction: one between 'malades' and the 'circulation des médecins et du personnel.' Such logistical distinction was much more common in hospital practices in the West, and his annotations may have been consciously added to attenuate the degree of racial segregation in his design, likely in order to persuade the Brussels Ministry.

The way these diagrams simplified and even disguised the complex programmatic design problems of large hospital complexes was of course not limited to the colonial context of Belgian Congo. With their 'pictorial language,' diagrams had functioned as tools of design and visualization from the 1930s onwards, and their 'aura of objectivity' was often used to convey the image of a methodically developed and science-based design. Yet the 'pictorial language' of these drawings also oversimplified reality or even consciously cloaked complications in architectural designs in order to undergird the professional legitimacy of architects in hospital planning, a discipline in which the 'battle for professional turf' had long been dominated by doctors.[284] In the colonial context and in response to African 'users,' this architectural tool was used in an even more pervasive way. Diagrams not only facilitated design efforts to racially segregate hospital logistics on a scale unseen before, but colonial architects also redeployed its 'aura of objectivity' to convince their commissioners or superiors, by strategically cloaking or exaggerating racial segregation.

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284. See Introduction. Scriver (1994, p. 322).
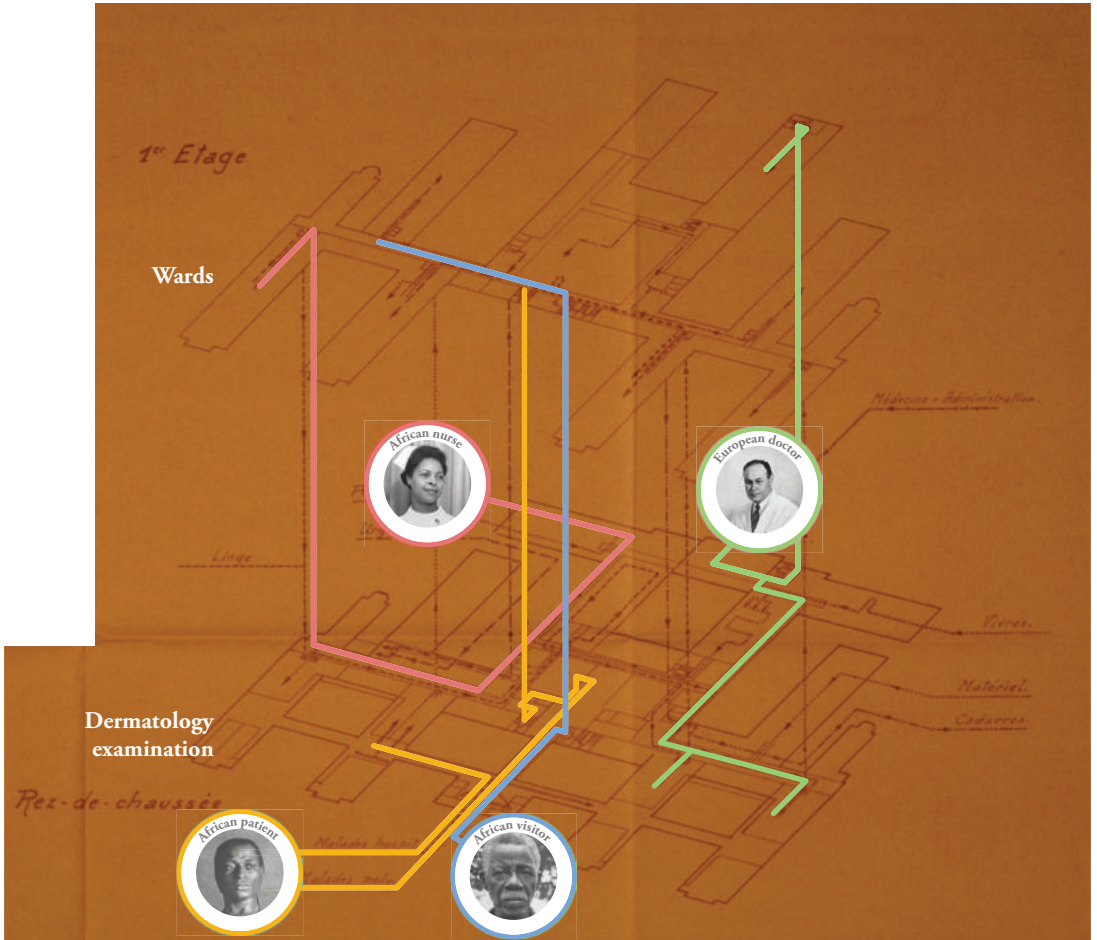
Image 60 . Diagrams as camouflage of messy hospital logistics

Ricquier and his successors had taken several design decisions to ensure racially segregated hospital circulation, and the 'organigramme général' drawn by state architects to present the design to their local superiors confirms this. The diagram presented circulation patterns as rather neatly separated, but omitted several important possible trajectories that did not align with the ambitions of separated logistics: the trajectories of doctors were strategically limited to the side of the complex where their entrance was situated, the same was true for African personnel, and patients were subdivided into 'hospitalisés' and 'polyclinique,' which conveniently masked that diagnosed patients were likely to take the shortest route to their ward, rather than return to the main entrance.
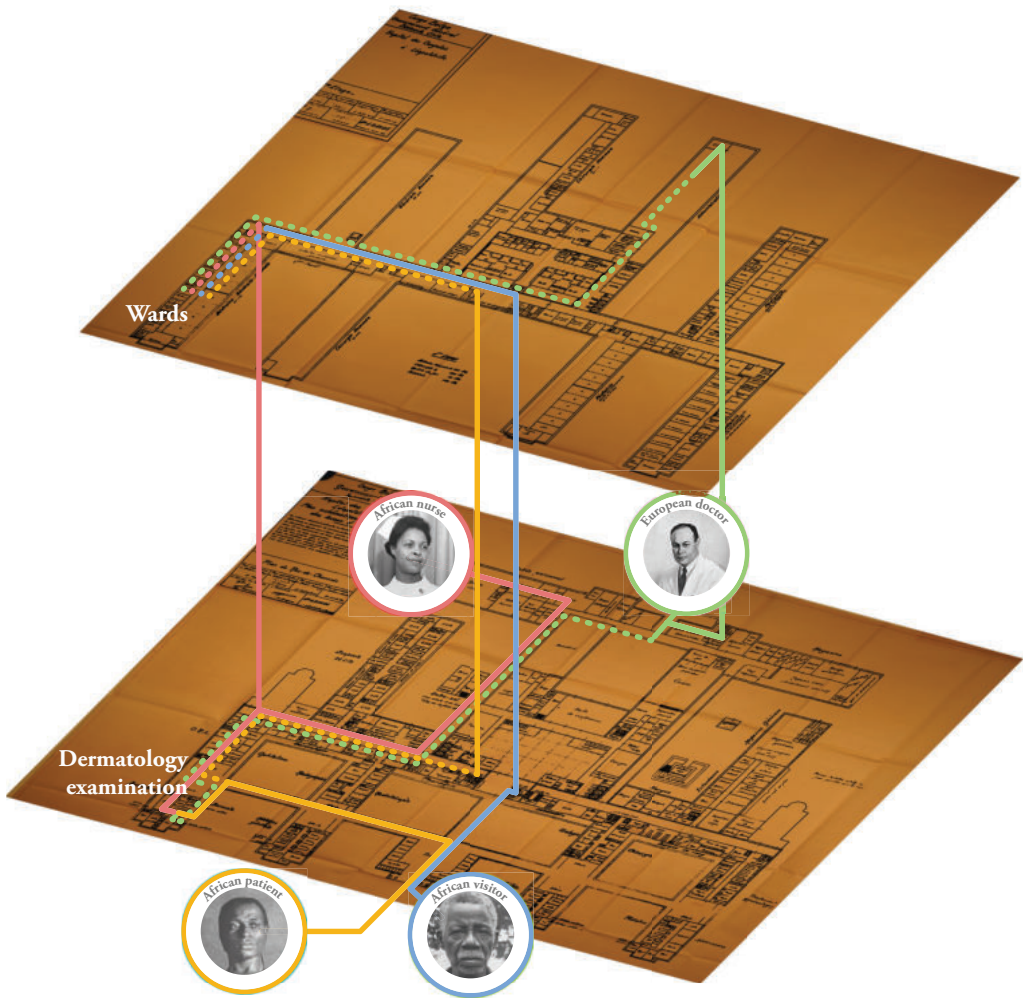
Based on the more detailed construction plans of the complex, these pages confront the polished trajectories drawn in the diagram (full lines) with a particular hospital scenario in which four plausible 'user' profiles are involved: a patient is diagnosed in the dermatology wing - located on the opposite side of the doctors' entrance - and is then referred to a ward to stay overnight, where a family member visits him. By tracing out the most efficient, and thus most likely trajectories of the 'users' involved (dotted lines), this image surfaces circulation patterns that were camouflaged by the oversimplified diagram, and reveals how in spite of active design attempts, racial segregation of the hospital's logistics would likely have turned out differently than planned: European doctors would have shared corridors, stairways and elevators with African personnel, and often crossed waiting rooms of African patients.

Drawings by author based on AA/3DG 192.

Bridgman, 1955, p. 95.

Llewelyn-Davies, 1966, p. 73.

Kleczkowski and Ribouleau, 1977, p. 39.

Llewelyn-Davies and Weeks, 1979, p. 31.
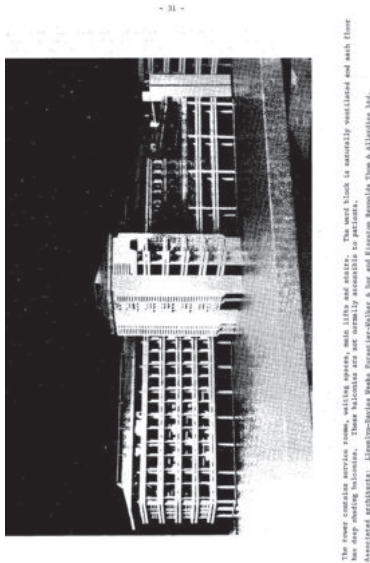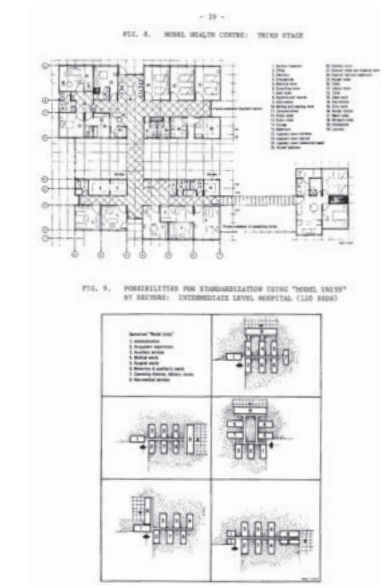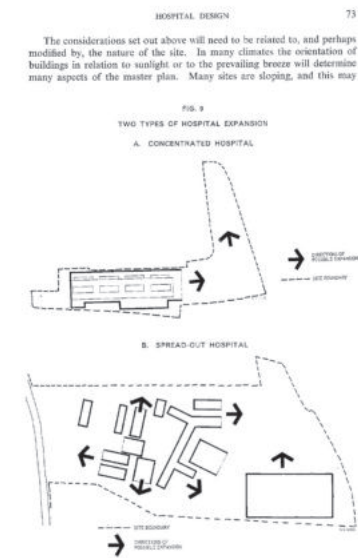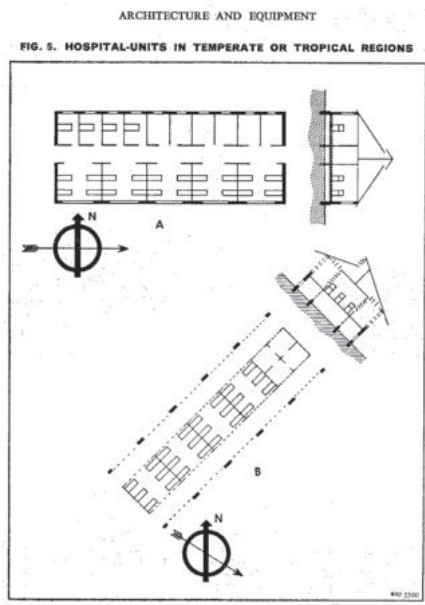
Image 61. Selection of hospital manuals produced under the auspices of the WHO

While Dr. Bridgman already published a well-known hospital manual in 1955, it was especially from the mid-1960s onwards that the WHO issued standardized instructions on hospital construction in tropical regions and so-called developing countries. This was due to the founding of a particular branch within the organization called the *Division for the Strengthening of Health Services* led by the Polish Dr. Kleczkowski, who took a particular interest in hospital construction and surrounded himself with various authorities from different nationalities and backgrounds to develop expertise on the matter.

Fragments of (post)colonial hospital planning

The last decade of Africa's colonial period was at the same time also the first decade in which large-scale healthcare campaigns of almost all colonial powers were launched simultaneously. The British *Colonial Development and Welfare Act,* the French *Fonds d'investissement pour le développement économique et Social* the Belgian Ten-Year Plan all included some form of hospital construction program. These campaigns not only completely dwarfed earlier building efforts, but, given the increased post-war emphasis on the welfare of the colonized, also had the much more explicit ambition of realizing healthcare infrastructure along the latest hospital design principles. Despite these simultaneous and large-scale building programs, barely any concrete information on how to construct modern hospitals in a colonial or tropical context was circulating at the beginning of the 1950s. Architects in the colonies had to improvise, translating Western hospital practices to the local context, and applying the new architectural and technical know-how on tropical architecture that did circulate widely at the time.

As healthcare programs progressed, however, colonial administrations and architects slowly started to address this lack of knowledge exchange on the matter, although at first often indirectly. As Guy Vanthemsche suggests, 'in order to face anti-colonialist attacks, Belgium therefore endeavoured to form a joint front with London and Paris.' As a result, 'bilateral and tripartite conferences took place; inter-colonial co-operation agreements were concluded.'[285] It was through such general networks of knowledge exchange and collaboration that expertise on hospital planning increasingly circulated, and from the mid-1950s, a wide array of organizations started to develop branches, sections, or expert panels on tropical hospital construction and management. One institution proved particularly pivotal in this process. After the Second World War, the *Office International d'Hygiène Publique* and the *League of Nations Health Section* joined forces and gave birth to the *World Health Organization*. With its ambitions to achieve 'the attainment by all peoples of the highest possible level of health,' the organization quickly turned much of its attention to the most healthcare-deprived populations located in colonial and so-called developing countries. Although general healthcare policies were its main concern, the WHO nevertheless developed as an important hub of knowledge exchange on hospital planning. In 1955, one of their hospital experts, the French doctor Bridgman, published a monograph on 'The Rural Hospital' which included a lengthy chapter on its 'architecture and equipment.'[286] This marked the first of several influential publications,

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285. Vanthemsche (2012, p. 139).

286. Bridgman (1955, pp. 91-132). That Dr. Robert Fréderic Bridgman was indeed considered an authority in the field of hospital architecture, would again become clear a few years later, when he authored an extensive article on 'Les constructions hospitalières à l'échelle du territoire et de la ville' in *L'Architecture d'Aujourd'hui*, 94, 1959, pp. 2-8. The piece included many of the same ideas already explored in his publication under the WHO, revealing the increasing impact the international organization was having on hospital planning.

including the already mentioned *La Banalisation des Services d'Hospitalisation*, in which various global experts from varying professional backgrounds collaborated on providing instructions on hospital construction in colonial and so-called developing countries.

Apart from its own output, the organization also started to increasingly collaborate with other international institutions related to hospital planning. In the mid-1950s, it established formal contacts with the *International Hospital Federation* – the successor of the *International Hospital Association* already mentioned in the beginning of this chapter. This not only resulted in joint conferences on hospital planning and management, but also in a special issue on hospital planning in the "global south" in *World Hospitals*, the journal published by the *International Hospital Federation*.[287] Similarly, from 1959, the WHO organized exchanges with the *Union Internationale des Architectes* – an international organization founded under UNESCO that represented architects and, especially in its early days, provided some counterweight to the Modernist CIAM.[288] This architectural institution had a branch that focused particularly on public health, in which the same figures such as Henri-Jean Calsat or Dr. Bridgman again rose to prominence as the main authorities and consultants. Together with the WHO, the branch organized conferences on hospital planning from the 1960s onwards, and published hands-on standardized hospital plans, design manuals, and presentations on hospital construction in so-called developing countries.

Lastly, the WHO established close contacts with the *Commission de Coopération Technique en Afrique au Sud du Sahara*, an organization founded in 1950 to promote technical knowledge exchange and collaboration between various sub-Saharan colonial territories.[289] Although the organization organized multiple conferences on issues such as engineering, low-cost housing and healthcare, architectural historians seem to have overlooked its impact.[290] Nevertheless, the organization is particularly relevant to Belgian colonial historiography, because it somewhat nuances the view of Belgian knowledge exchange as exclusively based on 'selective borrowing' – a view generally upheld by historians which I have also followed to a large extent in this PhD. Indeed, the Belgian colonial administration was one of the most prominent players of the organization and actively contributed to the production and exchange of knowledge within this new network. On the one hand, the headquarter of the *Secrétariat Scientifique*, which played 'un rôle important dans la coordination des réseaux et publie un

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287. The organization was renamed in 1947 as the *International Hospital Federation*, the name it still bears today. See https://www.ihf-fih.org/about/ [accessed 20 October, 2020].

288. See e.g. Aymone (2007); Fivez (2015); Glendinning (2008).

289. With Belgium, France, Great-Britain, Portugal, the Union of South Africa and the Federation of Rhodesia and Nyasaland, its founding nations were a combination of dependent territories and colonial powers.

290. Although architectural historian Rixt Woudstra (2019) has conducted and presented some preliminary research on the organization and its knowledge transfer on housing and urbanism, the topic remains largely unexplored. On the CCTA, Belgian Congo, and housing, see AA/3DG 619.
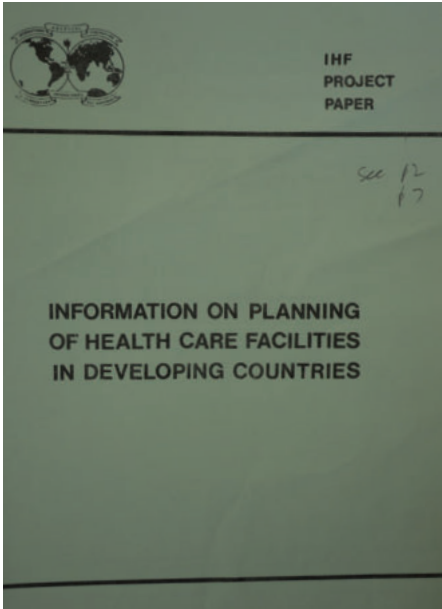
WHO-IHF, 1977, WHO/M7/445/15.
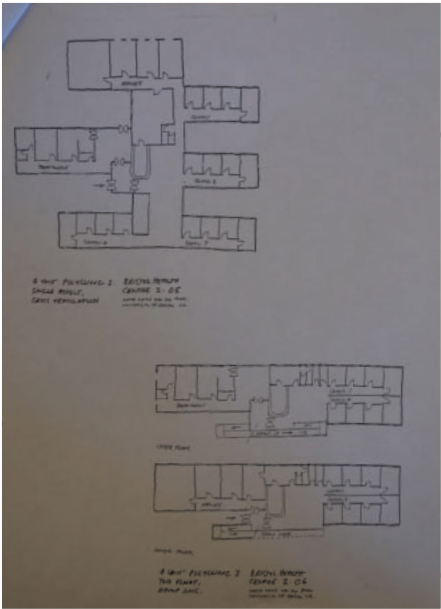
WHO-UIA, Design of standardized modular healthcare centres, , ca. 1972, WHO/M7/180/5.

WHO-IHF (with Polytechnic of London), instructive audio book with slides, *ca.* 1985, WHO/M7/445/15.
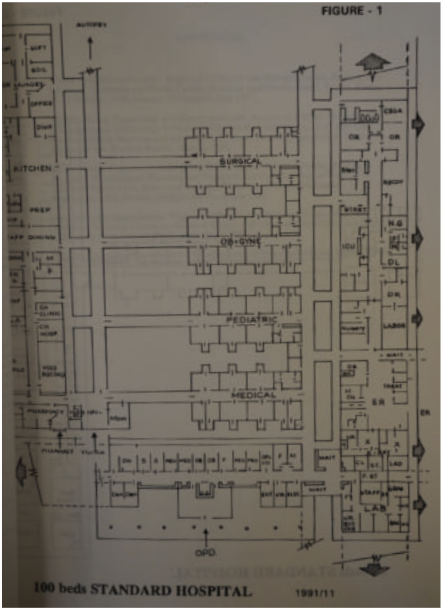
WHO-UIA, Design of standardized 100 beds hospital, 1991, WHO/M7/180/5.

Image 62 . Collaborative projects between WHO, IHF and UIA

Formal connections between the WHO, IHF, and UIA not only resulted in numerous co-organized conferences and seminars, but also in collaborative publications, modular type-plans, standard hospital designs, and even a tape-slide audio book with instructive drawings on why and how to be a hospital planner in so-called developing countries.
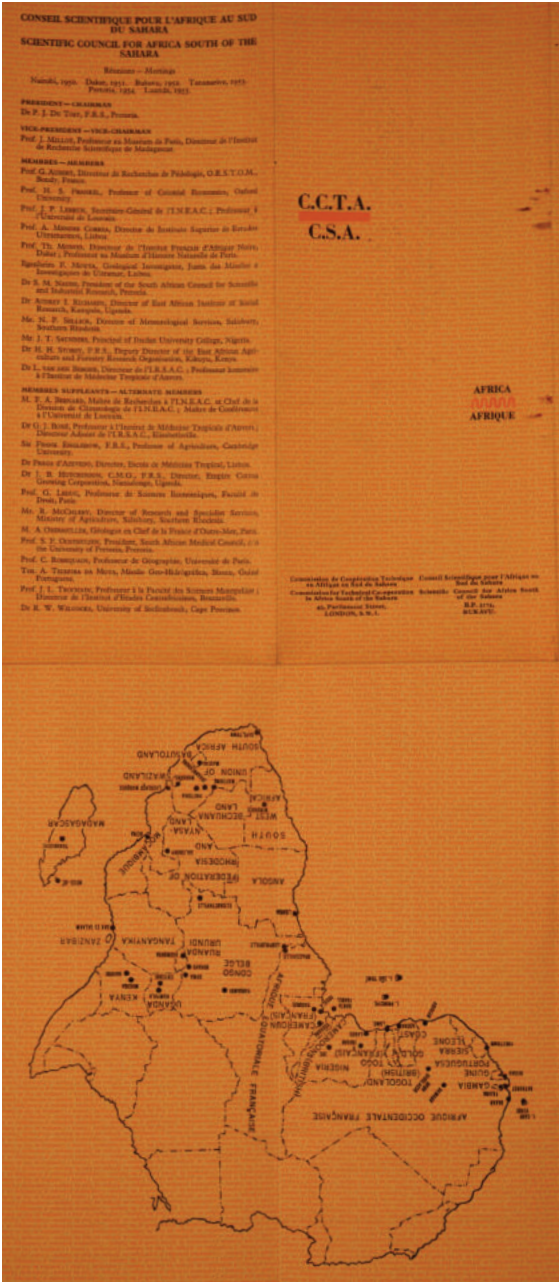
Image 63 . Intercolonial knowledge exchange through CCTA

From its founding in 1950 until its termination in 1964, the CCTA organized numerous conferences and seminars aimed to foster knowledge exchange on issues such agriculture, housing and healthcare in sub-Saharan Africa.

Left: Poster on the organizational structure CCTA and various locations where the organization was active; AA/H 4538.
Right: Brochure on Ten years of CCTA, 1960, AA/ H 4539.

bulletin bimestriel, *Science Afrique*,' took residence in Bukavu. On the other, two out of the organization's nine scientific expert committees were established in Congo. While the scientific center in Yangambi became the main seat of the CCTA's pedological committee, the 'Bureau Permanent Interafricain pour la Tsé-Tsé et la Trypanosomiase,' in Léopoldville allowed Belgian Congo to further elaborate and share its already long-lasting expertise on tropical diseases with other African territories.[291] From the mid-1950s, the CCTA also became active in the knowledge transfer on hospital planning. Supported by the much larger World Health organization, it organized a series of 'Séminaires Internationaux d'Architectures et de Techniques Hospitalières,' as well as several, more informal 'réunions régionaux des directeurs des servcies médicaux' of various colonial administrations.[292]

As the 1950s drew to a close and several African countries became independent, these newly formed nations also joined the CCTA, which became a peculiar conglomerate of colonial powers, former colonial countries, and still dependent territories. With annual contributions shrinking and important political issues such as Africanization of the staff rather than scientific topics dominating the discussion, the organization struggled in the beginning of Africa's post-independence period. By 1964, the organization eventually cracked under its own political tensions and Great-Britain, France and Belgium withdrew from the institution – Portugal had already been expelled. While parts of the CCTA were integrated within the Organization of African Unity, much of its research infrastructure and networks of exchange proved incompatible with the new political reality of Africa.[293]

The steep yet logical demise of the CCTA, which 'reflected the turbulence of the time while at the same time preparing the ground for later developments,' exemplifies the broader issue with these late-colonial networks of knowledge exchange.[294] After over a century of Western rule in Africa, colonialism finally – although very cautiously – started emphasizing the welfare of the colonized during the 1950s. In the wake of this new 'development paradigm,' expertise on the construction of hospitals and healthcare infrastructure also increasingly circulated. The abundance of conferences, reports, manuals, and best practices directly or indirectly related to the matter stands in stark contrast with the preceding years, when publications on colonial hospitals were scarce and mainly Western examples had to be used for "modern" hospital construction in the colonies.

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291. AA/H 4539, Brochure on *CCTA/CSA: Dixième Anniversaire*. For a general situation of the research station of Yangambi and a landscape analysis, see respectively Halleux, Vanpaemel, Vandersmissen, and Despy-Meyer (2001); Keymolen, Deltomme, and Verraes (2015).

292. Unfortunately, I could not retrieve the reports of neither these regional reunions nor these seminars – of which the 'compte-rendu comprennent deux volumes' of '300 pages.' AA/H 4539, *Listes des documents diffusés,* 1957; AA/4532, Letter from CCTA to its various members concerning the seminars, 18 June, 1958.

293. Gruhn (1971); Vigier (1954).

294. Gruhn (1971, p. 469).

Despite its intense participation with the CCTA, Belgian Congo had continued to 'selectively borrow' from the most readily available Western best practices. This, however, meant that colonial architects were forced to translate these examples to the local context, where African 'users' posed new design problems, especially given the new post-war discourse of 'welfare colonialism.' This translation not only led to delays that caused large projects such as the *Hôpital des Congolais* to remain unfinished, but also led to novel, yet ambiguous local design solutions. Modularity – a main theme within Modernist architecture – was reinterpreted to serve a 'politique de transition,' while diagrams were deployed to facilitate, mask or emphasize racial segregation in healthcare infrastructure.

If the case of the *Hôpital des Congolais* demonstrated how these late-colonial networks of knowledge exchange on hospital planning proved too little too late to incorporate in the last hospital projects planned under colonialism, these networks would nevertheless have a long-lasting impact beyond the colonial period. The overview presented here of the emergence of institutions and collaborations during the final years of Africa's colonial period, remains fragmentary and deserves further exploration. Nevertheless, it reveals how knowledge exchange on hospital construction in the post-independence era was clearly rooted in late-colonial networks of exchange and collaboration that had been developed in response to the era of 'welfare colonialism,' and the political shifts and large-scaled building programs this new approach to colonial rule had brought about. Transfer of knowledge and expertise on hospital construction after 1960 was not only marked by the same or similar international institutions and the collaborations that had already been forged during the colonial period, but also by many of the same 'global experts' to solidify these networks. The colonial era thus continued to impact everyday healthcare in Africa not only through the use of former colonial medical infrastructures, but also through the networks of knowledge exchange on hospital planning that originated at the eve of Africa's independence.

Epilogue

Towards an 'opération de vérification' of a persistent myth

Image 1 . Mama Yemo - Le Karmapa, 2020

Opening lines:
"Je ne veux pas me salir les mains. Sans argent, votre frère va mourir."
"Docteur, oyo hôpital ya ndenge nini ? Obosani serment d'Hippocrate?"
"Eh, eh, tais-toi, nakosimba ye te. Soki mbongo eza te, akokufa."
("What is this for a hospital? What are you doing with Hippocrate's oath?"
"Shut up, I won't touch him. If the money 's not there, he'll die.")

https://www.youtube.com/watch?v=aNfvncOvM04, still on 8:16.
I highly recommend watching the video clip, in which the hypnotizing cheerful dances stand
in stark contrast with the tragedy of some of the enacted hospital scenes. For discussions on
the polemics that the single's release caused:
https://www.digitalcongo.net/article/5e9f3232a491e70004b0e799/
https://afrique.lalibre.be/54512/opinion-le-karmapa-le-probleme-de-la-censure-en-
rdcongo/ [all accessed: 16 April, 2021].

Despite the sunny soukous guitar lines surfing over the song's cheerful syncopated beat, the message of *Mama Yemo*, the latest single of Congolese artist *Le Karmapa*, paints a bleak picture of Kinshasa's central hospital.[1] An opening conversation between a doctor refusing medical care to a dying patient because he does not have any money, is the start of a grim description of a hospital 'sans espoir,' plagued by constant power blackouts and overrun by cockroaches and rats feeding of the navels of newborns. And *Le Karmapa* does not stop at the hospital's dilapidating infrastructure: he also criticizes the numerous everyday practices that have emerged in the hospital, including the many patients and *garde-malades* that overcrowd the hallways doing all sorts of household chores. Released in September 2020 amidst the global Covid-crisis, the single was highly polemical, and was even temporarily banned by the Congolese *Commission de Censure*. This incited a fierce public debate in the DRC and beyond, and after numerous Congolese prominent figures and regular citizens had publicly proclaimed their support to the artist, the Commission was eventually forced to lift the ban.

Mama Yemo marked the start of this PhD: I described how my view of the hospital shifted from a first impression of destitution to what I felt was a more profound understanding of everyday dynamics in and around the hospital. The relation between economically dire circumstances and everyday practices in Congo (and beyond) has already spawned an extensive scholarship on 'débrouillardise.'[2] Similar to my description of Mama Yemo, many of these scholars have stressed the 'inventiveness of people's practices,' while also acknowledging these are undeniably still practices of 'making do' with the economic challenges they face on a daily basis. Nevertheless, *Le Karmapa*'s single still leads to some uncomfortable personal questions. If the temporary ban on the artists' message, in which he denounces the destitute hospital infrastructure and its dynamics of 'débrouillardise,' provoked such a general outcry in Congo, who am I as a foreign researcher to discard my first impression – which conjured a very similar imagery of destitution – as too simplistic? Moreover, the same unease I have often felt as a Belgian and foreign architect studying former colonial hospital infrastructure, also translates to a similar wariness about the various forms of both the "built" and oral and paper archives consulted during my research: how to read, interpret, or "think with" such peculiar and often biased archival sources as a Belgian architect or historian? As a concise self-reflection on my positionality and the biases and pitfalls embedded in my personal research, this epilogue addresses these uneasy yet crucial questions. I not only aim to offer a glimpse into the long and meandering research process behind this PhD, but also hope this can provide insight into how this historical study of hospital infrastructure might contribute to the broader and highly topical public debates on Belgium's colonial history.

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1. On the history and politics of Congolese rumba, see White (2008). On syncopation as a metaphor to re-read Kinshasa's informal urban practices, see De Boeck (2015).

2. L. Bremner (2002); Trefon (2004, p. 3).

Reading the oral and built archive as a Belgian architect

Just as many other PhDs, this research started with a project proposal that outlined its original research goals and hypotheses. As a close collaboration between a trained architect – me – and an anthropologist – Kristien Geenen – the proposal went beyond the classical scope of a conventional architectural history and was explicitly interdisciplinary. It aimed to complement the spatial perspective of architectural history with the more ethnographic lens of anthropology. Through this interdisciplinary collaboration, the ambition was to chart how the everyday reality of colonial hospital architecture has shifted or remained in place from colonial past to postcolonial present. By narrating the 'longue durée' and the 'social life' of Congo's hospital infrastructure, the research goal was both to unearth and highlight African agency within colonial state hospitals, and offer a fine-grained, on the ground assessment of Belgium's legacy of hospital infrastructure. To achieve these aims, the project proposal outlined a double methodology. On the one hand, extensive ethnographic fieldwork on Kinshasa's and Mbandaka's former *Cliniques* and *Hôpitaux des Noirs* had to provide insight in the current-day spatial practices in a few key hospital sites – inspecting both the "built" archive and conducting oral in-depth interviews with numerous patients and personnel. On the other, research of various colonial archives had to allow us to uncover traces of the everyday and African agency of the same and various other hospital sites during the colonial period.

Throughout the project, I have assessed and reassessed these research ambitions. Although I've briefly touched on the contemporary realities of the visited hospital sites, I've chosen to focus on the historical dimensions of colonial hospital infrastructure in this PhD. This decision was driven by my own personal positionality, interests, and competences as a researcher. During our four months in the Mama Yemo hospital, and the month we spent Mbandaka, Kristien Geenen taught me a great deal about the anthropological discipline and how to conduct methodologically sound ethnographic research. Nevertheless, I am an architect by training, and lacked the necessary skills and theoretical background to conduct ethnographic research on my own. I do not – or barely – speak Lingala, the main language spoken in Kinshasa and Mbandaka, and much of what I learned from informants thus remained moderated through Kristien's notes, translations and preferred methods of conducting fieldwork. In other words, my access to the contemporary 'oral archive' of people operating or residing in the hospital was limited, and was always mediated by the views of another researcher with a different disciplinary background.

This interdisciplinary collaboration has, ironically, perhaps also biased my personal perception of these sites. On the one hand, as the latest studies of anthropology often privilege an emphasis on African agency and 'débrouillardise' as 'capacitating'

practices,[3] I might have been prone to interpreting and misrepresenting such practices in an overly positive way – Le Karmapa's widely supported outcry about Mama Yemo's unhygienic everyday practices, or the widespread 'politiques de la nostalgie' outed by Congolese criticists of the country's current healthcare policies, at least raise questions about this bias.[4] On the other, when I did have autonomous conversations with informants who also spoke French, I noticed how, in the absence of Kristien as an anthropological broker, they would often revert to the topic of hospital infrastructure, its dilapidating state, and possible architectural solutions to these spatial problems. Of course, this could have been due to language barriers, as we were both not speaking our mother-tongue, but I also felt this was related to me being a Belgian architect.[5] Many of the newer buildings of both hospital complexes, especially in Mama Yemo, had been constructed by (the architectural departments of) various NGOs. This may explain why informants perceived a foreign architect like me as part of, and a point of access to, flows of practical development aid, rather than as a social researcher and confidant of everyday practices about which they were already reluctant to share.

Because of these various possible biases, I decided to steer away from an in-depth analysis of the contemporary situation of former colonial hospital infrastructure in the DRC in this PhD. This, however, does not mean that the fieldwork conducted was completely in vain. Not only did Kristien and I publish a number of texts on the subject together and were we able to share numerous inaccessible archival sources stored in Brussels with the management of both hospitals, it also served as an important source of inspiration for my own personal research.[6] As architectural historians Rachel Lee and Phillip Misselwitz have argued, 'urban

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3. The rejection of concepts by anthropologists of reading Congo as a 'failed state' in favor of concepts such as 'hybrid governance' is a good example of this, as is the somewhat eulogizing language often used by Filip De Boeck (2015) (for instance in his article on syncopation) or the literature on 'people as infrastructure' by Abdoumaliq Simone (2004).

4. Lachenal and Mbodj-Pouye (2014).

5. Or, at least, to Kristien and me presenting myself as an architect, rather than an architectural historian. At the time, we didn't explicitly discuss why we made this unconscious decision. Although I can only speculate now what this would have implied, I believe this was in fact a productive call, especially for the ethnographic research we were conducting. What it meant to be an anthropologist was often unclear at first to many informants. This – I noticed – implicitly offered Kristien some additional leeway to strategically redefine her position depending on the interlocutor. She would often intelligently adjust her obligatory introductory explanation about her role and aims as an anthropologist depending on whether we introduced ourselves to the head of the medical facility, a doctor, a nurse, or a patient, and it was this leeway that allowed her to get off on the right foot with informants. Like an alternative version of a "good cop, bad cop" situation, my clear-cut, pragmatic position as an architect, offered a counterbalance to her unclear yet redefinable role. This, I believe in hindsight, provided a better introductory tandem to conduct ethnographic research, in which a first impression is often critical, than having to explain why exactly an architectural historian would be interested in – to use a recurring categorization of this PhD – the 'efficient' architecture of hospital infrastructure, rather than the 'dignified.' Although presenting me as an architect also had its downsides, I feel these did not weigh up to this.

6. See De Nys-Ketels, Lagae, et al. (2019); Geenen and De Nys-Ketels (2021), and see the own work of Kristien Geenen (2019) on Mbandaka.

built environments are spatial and material archives.'[7] Being able to read, interpret and think with this 'built archive' was essential to properly understand the history of Congo's colonial hospital infrastructure. It allowed me to better grasp what it meant to be in an overcrowded sleeping ward of limited dimensions in Mama Yemo, to experience the local design solutions of ventilation in the breezy hallways of the *Clinique Reine Elisabeth*, to feel what ambitious local governor Duchesne strived for when implementing the *Avenue Royal* leading up to the impressive façade of the Mbandaka's *Clinique*, or to understand the distances patients had to cover when crossing the neutral zone to the *Hôpital des Noirs* in Léopoldville.

It was also during this fieldwork that I came to terms with, and decided that, I could and would not attempt a difficult – if not futile – effort to mold myself into an anthropologist. Instead, I chose to develop both my individual interests and my particular strengths as an architect(ural historian) during my own PhD. These strengths lie not in conducting ethnographic research, but rather in the ability to "think with" space. Pursuing my personal interest in the entanglement of colonial space and (the limits of) colonial statecraft was not only complementary to existing historical studies on Congolese healthcare,[8] or Kristien's anthropological perspective,[9] but it also optimally engaged my architectural skillset. It was especially in the various mappings of colonial hospital infrastructure that this spatial background came to fruition. As annex 1 shows, this iterative methodology not only led to the final visualizations of the medical network realized during the colonial period, it also fostered a particular spatial mindset that allowed me to reflect differently about the variety of plans, photographs, and different textual sources collected. As such, this mapping methodology led to insights about how (type-)plans and design solutions circulated within and beyond the colonial administration, and allowed me to surface an implicit *modus operandi* of the colonial administration I could not have traced using conventional archival sources, or non-spatial methodologies of analyzing sources alone.

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7. Misselwitz and Lee (2017, p. 10).

8. As explained in the introduction, although incredibly inspiring, most authors studying Congolese colonial medicine do not focus on hospital infrastructure, but rather discuss it as the fairly innocuous stage on which more crucial dynamics occur. Nevertheless, some publications by social geographers (e.g. Flouriot, De Maximy, Kankonde, Pain, and Van Caillie (1975, p. 35)), the work of Congolese anthropologist Aimé Kakudji (2010), and especially the on-going research of Congolese architect Trésor Lumfuankenda Bungiema, do explicitly deal with Congo's hospital infrastructure in more detail. Their focus, however, is not historical, and their scope is limited to either a single hospital site, or to the urban healthcare network of Kinshasa. As such, my personal interests in the 'politics of architecture' in a colonial context, studied across scales, complement these studies.

9. Our study of pedestrian itineraries in the *Hôpital Mama Yemo* exemplifies this complementarity. It connects ethnographic observations of contemporary pedestrian practices with historical spatial research. More particularly, it reveals how the incomplete implementation of Léopoldville's neutral zone led to multiple disconnected buffer zones, including the hospital. Until this day, these form large spatial wedges in the urban tissue of Kinshasa, pushing pedestrians to avoid time-consuming detours by shortcutting through the medical complex, turning the hospital site into an integrated socio-economic hub within its urban surroundings. See Geenen and De Nys-Ketels (2021).

A grain to pick? Paper archives and their limits.

Yet this was not the only way in which the fieldwork of 2016 marked a vital turning point in my approach of reading and analyzing colonial paper archives. Until then, our archival research had predominantly – and perhaps too stubbornly – been focused on our original research ambitions of unearthing the everyday 'social life' of colonial hospital infrastructure. We searched for traces of African agency, and, inspired by earlier academic work on the role of Congolese medical assistants as 'middle figures' in colonial society, we tried to find confirmation of our initial suspicion that colonial hospitals functioned as liminal spaces of encounter between colonizer and colonized that may have unsettled colonial hierarchies.

Essentially, this approach reflected what Gyan Prakash has termed the 'reading [of] records against their grain.'[10] As the lion's share of documents, reports, letters and plans stored in colonial archives was written by European government officials, a directly African point of view is almost completely absent. Working with these sources thus bears the risk of reconfirming some of the violent, hierarchic, or racist worldviews and logics embedded within the institute that produced these paper trails in the first place. Colonial archives will always provide an only biased and partial view of colonial history. From the 1980s onwards, historians have thus started to read colonial archives against their grain, in search of the voices of 'the subaltern's myths, cults, ideologies, and revolt […] that conventional historiography' had overlooked by 'refusing to acknowledge the subjectivity and agency of the insurgent.'[11] In the Belgian colonial archives, however, such traces are particularly hard to find, as the Belgian colonial authorities prevented Africans from mounting to the higher-ranked administrative positions that were allowed to produce paper trails – it is no coincidence that one of the maxims of the Belgian colonial administration was 'sans élite, sans ennui.' Despite our persistent efforts of going again and again to the *Archives Africaines* of the former Belgian colonial government, as well as venturing into various other collections, the silence of Congolese voices felt almost deafening at times.

Our fieldwork offered a way out of what felt like an archival dead end. 'The old hospitals? *Eza ndenge moko* – they're all the same,' one of the nurses had told us during our one-month stay in Mbandaka. She pointed out that very similar hospitals dating from the colonial period had been constructed across the Equator region, in towns such as Gemena, Bongandanga, Basankusu, and Bikoro. While I only visited the medical center of Bikoro, I inspected aerial photographs of the other towns back home in Belgium and effectively found almost identical hospital footprints across the Congolese territory. If Bikoro opened up new forms of digital 'built archives,' it also drove me back to the paper ones. I stopped

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10. Gyan Prakash (1994, p. 1479).
11. Gyan Prakash (1994, p. 1479).

to search in vain for silenced African voices within an archive produced by a colonial institution. Instead, I focused my efforts on first understanding the administrative and institutional processes in which this paper trail had formed, and the vast hospital construction programs which these had allowed. In her incredibly influential book entitled *Along the Archival Grain: Epistemic Anxieties and Colonial Common Sense*, anthropologist and historian Ann Laura Stoler makes a compelling argument for such an inverse approach to colonial archives. She wonders how 'students of colonialisms' could 'so quickly and confidently turn to readings "against the grain" without moving along their grain first?[12] Instead of blindly looking for the most exciting traces of African agency, she advises a 'more humble stance – to explore the grain with care.'[13] As she argues, we must mine archives not just for their crude content, but also 'attend to their peculiar form or context,' since these implicitly reflect the everyday *modus operandi* of the colonial government, with its intricate administrative protocols and procedures. Rather than desperately searching for the spectacular 'colonial excesses,' there's much to be learned from understanding 'what claims to truth are lodged in the rote and redundant' *paperasserie* produced by the colonial administrative apparatus.[14]

Reading along the grain and mining for the mundane rather than the spectacular, is by definition laborious work. Besides the need to constantly take meticulous notes, I repetitiously opened up countless folders, unfolded and photographed numerous similar architectural type-plans, and monotonously copied seemingly redundant correspondence. Yet despite how tedious these chores felt at times, it was this seemingly mind-numbing methodology implied in reading an archive along its grain – or what anthropologists Wenzel Geissler and Guillaume Lachenal have called a 'pursuit of exposure'[15] – that turned out most fruitful and inspiring. It was the dull repetition of 'affective encounters' with the different textures of the archive, the constant fiddling with its fabric and the monotonous archival chores that generated an attentiveness to the 'form and context' of archival sources, and that opened up a mental space for brain slips to daydream and imagine the everyday workflow or circumstances in which these sources had been produced.[16]

It not only unlocked an understanding of the *modus operandi* of the colonial apparatus. In turn, it also allowed me to better recognize the anomalies that went *against* the grain, and that had lain hidden and dormant within the *Archives Africaines* but that I had failed to notice before. I distinguished the small variations in ways of signing and introducing letters by certain government officials, which hinted at a congenial collaboration or restrained rancor between

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12. Stoler (2002, p. 100).
13. Stoler (2009, p. 50).
14. Stoler (2002, p. 90).
15. Geissler and Lachenal (2016, p. 23) make this argument for archives of mostly post-independence African medical research institutions, but this seems equally valid for the *Archives Africaines*.
16. Geissler and Lachenal (2016, p. 23).

government services and which exposed how the colonial apparatus was anything but monolithic. I paid attention to what Ann Laura Stoler already described as the 'sociology of copies.'[17] I started recognizing the different types of paper and architectural drawing conventions used by different provincial administrative departments and which revealed an improvised workflow that stood in stark contrast with the imagery of Belgian Congo as a Bula Matari. And when traces of African agency did emerge – plans and sketches of shelters for family members, the application of village chiefs for the construction of a dispensary in their *territoire*, or the "fingerprints" of African building expertise through the materialities depicted in colonial photographs – my reading along the grain allowed me to both better identify these traces, and situate these within the broader policies and discourses of the colonial authorities.

If this PhD has a grain to pick about archival research, it is that immersion in, and (over?)exposure to colonial archives has paradoxically helped me to escape the often reductive, racist or violent logics ingrained within these biased sources, in favor of a more complex and multi-layered narrative of Belgian Congo's hospital infrastructure. This repetitious 'reading along the grain' not only helped me to – as Stoler already formulated – to recognize in what way archival sources are 'transparencies on which power relations were inscribed' and functioned as 'intricate technologies of rule in themselves.'[18] It has also enabled me to distinguish the scarce clues of African agency from this grain, and gave insights – albeit limited – into the everyday realities of colonial hospital infrastructure which had proven so hard to trace in the first year of my research process.

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17. Stoler (2002, p. 90).
18. Stoler (2002, p. 87).

The urgency of an 'opération de vérification'

These observations about how archival methodologies can offer an alternative and nuanced reading of colonial history are, as said, not at all new: already in the beginning of the millennium, Ann Lauro Stoler cautioned that historians should not try to 'brush against' archival sources in search of the subaltern voice 'without a prior sense of their texture and granularity.'[19] Nevertheless, questions about how to read colonial archives have deservedly been put back on the table in recent years, as public and academic debates on colonial history, both in Belgium and beyond, are gaining momentum.[20] Until recently, public popular debates in Belgium on its colonial past had remained predominantly historical in scope. In roughly the last four years, however, the reopening of the Africa Museum in Tervuren, or the broadcasting in 2018 of a critical documentary series on public television called 'Kinderen van de Kolonie,' marked important turning points. The public debate on Belgium's colonial history no longer focuses on historical dimensions alone, but is increasingly dealing whether and how the country's colonial past still impacts current-day issues of institutionalized racism and socio-economic inequality, and how to counter such aftereffects. Within Belgium's emerging debate on decolonization, decolonizing the present has thus become inextricably linked with decolonizing the past.[21] Colonial history is indeed crucial within this public debate, as often opposing voices all mobilize historical claims to settle a multitude of political questions, varying from whether official apologies need to be formulated by the Belgian state or how to address the presence of colonial monuments and statues in public space, to the restitution of Congolese artefacts.

Yet despite its societal importance, and despite the extensive and nuanced academic literature that is being written on the subject, colonial history is too often still mobilized within these public debates in a simplified and reductive way, as multiple prominent historians of Belgian colonial history have already argued. In an opinion piece that appeared on both sides of Belgium's language barrier, Amandine Lauro and Benoît Henriet, for instance, have described how both 'militant.e.s décoloniaux et nostalgiques « du Congo de papa » sont projetés dans des arènes médiatiques, où leurs visions opposées du passé sont placées au même niveau' without much critical scrutiny. Indeed, 'dans ces forums brefs et

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19. Stoler (2002, p. 100).

20. Debates on decolonization have also influenced archival sciences in particular. In a special issue published by the academic journal *Archival Science* dedicated to this topic, for instance, the editors have called for 'a research and practice approach that goes to the root cause of social, cultural, economic and political phenomena; that reflects on and is transparent about the assumptions and positionalities of those producing and disseminating knowledge; and that is committed to dismantling structures and systems of oppression and domination.' Ghaddar and Caswell (2019, p. 72).

21. Several voices have suggested a direct link between colonial history and the postcolonial present. See e.g. the writings of journalist and politician Didier Mumengi (2017) and historian Sindani Kiangu (2017) on the direct after-effects of colonialism in Africa, and e.g. Viaene, Van Reybrouck, and Ceuppens (2009) on the after-effects of colonialism in Belgian society. See Goddeeris, Lauro, and Vanthemsche (2020) for a brief and accessible (historiographic) introduction in decolonization efforts in Belgium.

superficiels, il n'y a que peu de place pour l'analyse longue des historien.ne.s.'[22] Other academic scholars such as Guy Vanthemsche have expressed similar concerns, noting how the public debate on colonial history is characterized by 'des assertions totalement opposés, mais rarement *vérifiées*.' As a result, he has recently argued how within this often oversimplified and politicized public debate, an 'opération de "verification"' is becoming a crucial responsibility of the historian.[23]

Such an operation is particularly urgent for the reductive way in which Belgium's history of colonial medical infrastructure is discussed within this debate. As various examples in this PhD revealed, Belgian Congo repeatedly deployed hospitals in colonial propaganda to legitimize its colonial rule, which, especially from the 1950s onwards, earned it global recognition as a 'medical model colony.' Given that popular histories has since continued to rely on many of the figures and images advertised in this colonial propaganda, Congo's medical reputation has proven particularly tenacious.[24] As already indicated in the introduction, one of the main tropes regarding Belgian colonial history is that 'Léopold II crossed a line, but the Belgians built hospitals afterwards.' Time and again, this trope is reiterated across the public debate on Belgium's colonial history, as apologists aiming to counter the rising critique on Belgium's colonial past emphasize hospital construction and the eradication of tropical epidemics as a clear example of how the Congolese population benefited from colonial rule.

Unfortunately, however, such arguments disregard, misinterpret, or even abuse the vast historical scholarship that has already convincingly questioned Belgian Congo's allegedly beneficial medical legacy. Multiple authors have not only pointed out how epidemics such as trypanosomiasis, or the later spread of HIV, can largely be contributed to colonialism, but also argued that colonial healthcare services explicitly served as a 'tool of empire,' that allowed colonial presence and the control of local populations.[25] Within this vast scholarship, however, hospital infrastructure is rarely addressed in itself, but often features as the backdrop

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22. https://plus.lesoir.be/211032/article/2019-03-08/carte-blanche-dix-idees-recues-sur-la-colonisation-belge [accessed: 17 August, 2021]. A very similar article by the same authors was also published in a Flemish popular periodical, see https://www.knack.be/nieuws/belgie/geschiedschrijving-vermag-veel-maar-kan-niet-alles-10-misvattingen-over-de-belgische-kolonisatie/article-opinion-1482597.html?cookie_check=1629217483.

23. Vanthemsche, Goddeeris, and Lauro (2020, p. 16).

24. As explained in the introduction, examples of such popular histories are e.g. Eynikel (2002); Stockman (2011), but also the initiatives of the organization *Mémoires du Congo*, which has an explicitly apologetic agenda; and publications by Barbier et al. (2013), or Raymaekers (2018). https://www.memoiresducongo.be/nl/ [accessed: 21 April, 2021]. That such views are highly topical, and explicitly used by Belgian political parties to establish a clear ideological standpoint vis-à-vis public debates of decolonization, is exemplified by the opinion of historian Joren Vermeersch, ideologist of the N-VA, a right-wing Flemish political party, in which he equates colonialism to development aid. That he considers development aid as unquestionably beneficial, or that he fails to acknowledge how aid was also a continuation of asymmetric colonial power relations, only bears testimony to the fact that this debate is often conducted in reductive terms, and without knowledge of the latest academic discussions. See https://www.knack.be/nieuws/belgie/n-va-ideoloog-joren-vermeersch-black-lives-matter-vervalt-in-rassendenken-dat-het-zegt-te-bestrijden/article-longread-1610467.html [accessed: 18 April, 2021]

25. See e.g. Headrick (1981, 2014); Lyons (1992); Pepin (2011); Vangroenweghe (1997).

against which more important dynamics of colonial healthcare took place. In this PhD, I've contributed to this academic scholarship by addressing this hiatus and focusing on hospital infrastructure. Looking across different scales, I've argued how the colony's hospital network was not only built to cure, but also served other, political, socio-economic, and ideological motives. Medical complexes were designed to facilitate the colonial extraction economy, and were selectively advertised in colonial propaganda to legitimize colonial rule. Separated along racial lines, urban hospital infrastructure materialized urban segregation and widespread European xenophobia about the pathologized African body. And by extending the *réseau hospitalier* to even the most remote corners of the colonial territory, the authorities not only aimed to heal, but also sought to establish state presence and increase sanitary control and supervision.

Conducting an 'opération de "vérification,"' however, also implies acknowledging more complex and nuanced historical layers. Colonial hospitals can simply not be reduced to mere coercive 'tools of empire' or billboards of colonial legitimation. Instead, genuine aims of curing have always underpinned hospital construction, and this not only during the post-war period – the decade that defined Belgian Congo's persistent reputation of a 'medical model colony' – but also during the earlier years. Moreover, throughout Congo's colonial period, medical complexes did not function as perfectly sanitary or rigidly controlled 'machines à guérir,' and were also shaped by African agency, improvised forms of hybrid governance, and difficult negotiations between various and often opposing actors within the 'social field' of the colonial administration. Racial segregation was never hermetically implemented, and especially in the post-war period of 'welfare colonialism,' segregated healthcare infrastructure became increasingly questioned by by both high-ranking colonial doctors and various non-European inhabitants. And while three vast hospital construction programs undergirded state control and an extractive colonial economy, the often improvised administrative *modus operandi* behind their implementation questions our understanding of the colonial apparatus as an omnipotent, monolithic 'Bula Matari.' The three cases I've analyzed from an explicitly architectural point of view in this PhD, further confirm the complexities of colonial hospital infrastructure. Although colonial propaganda propagated a racialized view of African building materials and the design of hospital logistics created de facto segregation, colonial photography also revealed traces of African agency and building expertise, and hospital plans suggested ambiguous architectural attempts to adapt medical spaces to an African elite whose emancipation was slowly – and very paternalistically – condoned.

Paradoxically, if these observations show that colonial reality was complex and cannot be explained through reductive tropes or essentializing terms, it is also this complexity that puts them at risk of being taken out of context or selectively mobilized for ideological claims: nuances about, for instance, the genuine motives to cure, or the agency of Congolese medical assistants, can be deployed by apologists of Belgian colonialism as a way to justify or even praise Belgium colonial rule. At the same time, fine-grained narratives that go beyond a binary framework and acknowledge the multi-layered realities of colonial society, also risk being misread by proponents of decolonization as adding grist to the mill of these apologists.[26] However, while an author can try to minimize essentializing misinterpretations by adequately situating one's work and its pitfalls, it is ultimately up to the reader to refrain from interpreting or instrumentalizing historical nuance as an automatic ideological declaration.[27] Conducting scientifically sound historical research precisely implies not to shy away from such nuances. Or, as historians Amandine Lauro and Benoît Henriet have already expressed in the aforementioned opinion piece: 'l'histoire reste un processus de verité,' even when 'elle a depuis longtemps renoncé à ses fantasmes de neutralité absolue.' As they argue, this means looking beyond oversimplified colonial propaganda or classic binary interpretations of colonial history:[28]

> *Penser les interactions entre colonisateurs et colonisés au prisme unique de la polarité « bourreau vs. victime » ou « résistance vs. collaboration » est cependant réducteur et, paradoxalement, très… colonial. Les Africain.e.s furent aussi autre chose que des victimes passives et sans défense. Donner à voir leur capacité à négocier, contester, s'approprier, contourner et utiliser les injonctions coloniales est aussi rompre avec une grille de lecture « coloniale » de l'histoire qui a longtemps réduit les colonisé.e.s à des objets d'histoire plutôt qu'à des sujets agissants.*

In this PhD, I've also aimed to acknowledge the agency of the colonized, as well as highlight some of the limits of the colonial apparatus. Through the genealogy of the myths and realities behind the Belgian 'medical model colony', I've tried to surface some alternative and untold story lines within colonial Congo's broader history, of which, according to Lauro and Henriet, 'l'épaisseur ne

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26. Perhaps surprisingly, it is remarkable to note how some proponents of decolonization, think along the binary framework they are trying to dismantle. As Johan Lagae (2019) has argued, this can be seen in the compilation by artists Verdijk and Faassen (2017). Their aim to compile and translate texts from Congolese historians in Dutch, thereby enriching Flemish historiography which until now was dominated by male white authors, is commendable. Nevertheless, it also reveals a binary view on historiography by directly replacing white/Flemish voices with black/Congolese ones, and discarding the fact that these are not opposite camps, but have a long history of exchange and collaboration within the academic landscape.

27. That historical nuance and ideology are a difficult balancing act, has poignantly been described by Lagae (2015, p. 157) regarding the 2005 exhibition at Tervuren's Africa Museum, in which he addresses the polemic question earlier raised on an internet forum by historian Moses Ebe Ochonu: 'when does complexity become complicity?'

28. https://plus.lesoir.be/211032/article/2019-03-08/carte-blanche-dix-idees-recues-sur-la-colonisation-belge [accessed: 17 August, 2021].

peut s'appréhender ni en slogans, ni en procès, ni en visions utilitaristes.'[29] As such, I've not only aimed to provide a nuanced contribution to the already vast academic scholarship on Belgium's colonial past. As the myth of the 'medical model colony,' deeply rooted in colonial propaganda, continues to be reiterated in an oversimplified way in public debates on Belgium's colonial history, I also hope my research offers a step towards a much needed 'opération de "verification"' of the complex and fine-grained history of hospital infrastructure in colonial Congo.

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29. Ibid.

Annexes

1. Mapping a colonial hospital network (3/L)

Bikoro hospital, 2016, by author.

My visit to the Bikoro hospital marked a turning point in my PhD research. If it changed the way I started reading the archives – as explained in the Epilogue – it also gave a new impetus to my earlier attempts of mapping out the hospital infrastructure constructed under Belgian colonial rule. Until then, I had only been able to chart a chronological overview of hospitals construction based on the *Rapports Annuels,* in which the Public Works Department published its construction projects realized that year. Yet, these reports fail to answer crucial questions about the scale and architectural design of these hospitals, their administrative planning, or their position within the surrounding urban tissue and larger medical network of the territory. Bikoro, however, made clear that the colonial authorities had effectively planned and constructed type-plan hospitals, which unlocked a whole new array of digital 'built archives' through aerial photographs. With the help of colleague Laurence Heindryckx, and Maltese intern Gerald Salerno, I went through the complete list of administrative seats published in the *Plan Décennal*, allowing us to geolocate numerous standardized hospital footprints across the colonial territory, of which a few examples are given here. As I went down the list and identified a constantly rising number of almost identical medical centers, it seemed clear as day to me: at least for the *Plan Décennal*'s medical program, the Belgian colonial government had effectively functioned as a well-oiled 'developmentalist machine' that 'approached the colony as empiricist, masterful, relentless engineers,' deploying type-plans as rigid and top-down 'technologies of distance.'[1] The 'Bula Matari' seemed more potent than ever.

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1. Chang (2016, p. 248); Hunt (2016, p. 10).

Bikoro

Bunia

Ponthierville

Kole

Kabalo

Shabunda

Mapping on Google Earth, all type-plan hospitals found in territory and district seats

SITUATION DES CONSTRUCTIONS C.M.C AU

The subsequent find of the central type-plan for a *Centre-Médico Chirurgical* (3/L: Image 22), compiled as an easily transportable booklet, seemed to confirm these preliminary conclusions. And yet, how to explain the slight variations of hospital footprints I had identified so far? As I continued my archival research, a few key sources further undermined my initial conceptualizations of Belgian Congo as a rigorous top-down apparatus. The table of Equateur's 'Situation des Constructions C.M.C. au 1-9-1954' proved a pivotal document in this mapping process. It revealed not only how the *Plan Décennal* was continuously readjusted, but also how local officials used the transportable booklet not as a rigid architectural 'model,' but rather as a modular tool to adjust the building process to local healthcare issues. This led to two changes in my mapping approach. On the one hand, I started searching beyond the fixed list of territorial seats, and scanned aerial photographs of numerous other smaller and larger towns across the Congolese territory for recognizable type-plan hospitals. On the other hand, it meant that the modular pavilions had also been organized in different general lay-outs. I started paying attention not only to the overall *plan d'ensemble*, but also to recognizable details of the pavilions – the T-shaped toilet facilities form a case in point. This allowed me to locate numerous additional, and sometimes rather differently designed type-plan hospitals, varying single-axe complexes, to pavilions spread out across oddly shaped sites, or wards stacked closely onto each other to align to the local hilly terrain. These on the ground adaptations raised questions about the surprising agency local officials held within the allegedly top-down 'Bula Matari,' and the way these flexible type-plans effectively functioned.

Dilolo

Wapinda

Kiri

Kirotshe

Expanded mapping on Google Earth, including (deviant) type-plan hospitals in other colonial towns

Equateur section

Kasai L-shaped *polyclinique*

Meanwhile, in the archives, I was finding increasing confirmation that not only on the ground adaptations occurred through the modular type-plans, but also that provincial branches had altered the central type-plan in response to regional conditions. I had already felt it was peculiar that while Bikoro clearly was inspired by the general lay-out of the type-plan (with slight alterations), the design of its pavilions, with its sideways ventilation shafts, was quite different. I discovered that Equateur's provincial Public Works Service had 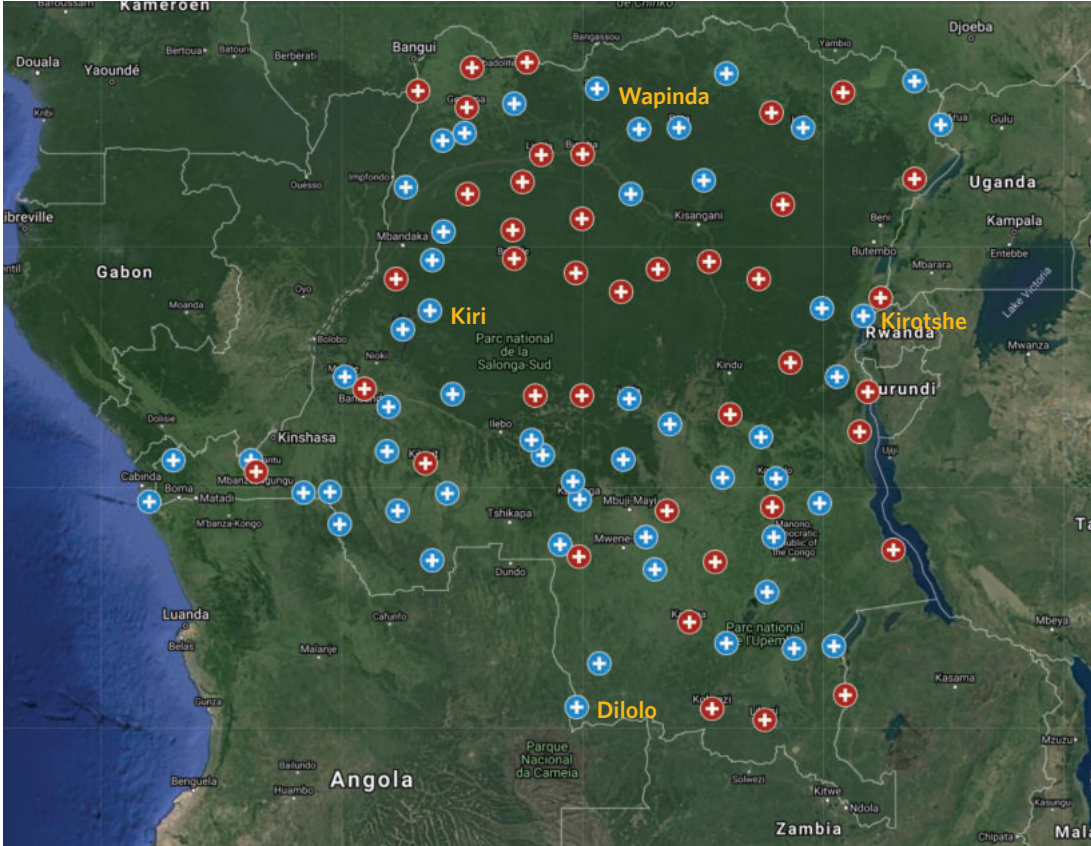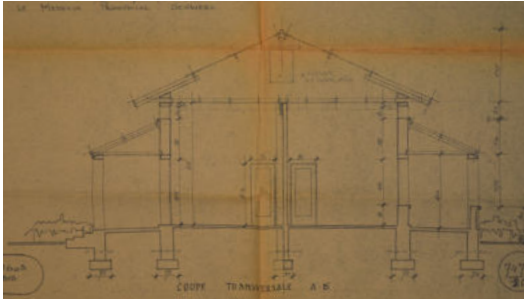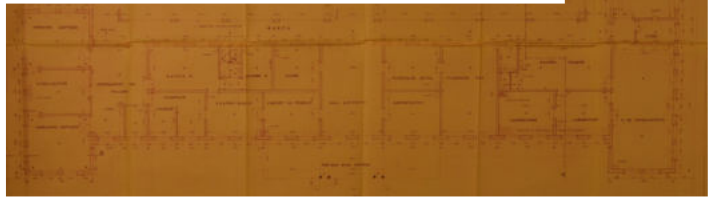effectively replaced some of the plans of the transportable booklet, and also found that some other provincial branches had equally implemented their own adaptations. The Katanga services had altered the sections of the pavilions as well as the overall *plan d'ensemble*, and the Kasai province had both implemented joint toilet facilities, and designed a larger, L-shaped building that would serve as multifunctional *polyclinique*. As separate pavilions and provincialized type-plans seemed crucial in the implementation of the *Plan Décennal*'s medical program, I decided to trace the outlines of every footprint of the geolocated hospitals. Doing so, I noticed how some of these provincial adaptations seemed to reoccur across provincial borders. I detected the double roofing in several other pavilions outside the Equateur, while the L-shaped building had clearly crossed over to Orientale and the joint toilets also inspired the Kivu provincial branch. Additional searches through the photographic collection of the Tervuren Africa Museum, and current-day images sent by medical personnel formerly active in Congo, or published on-line by the Congolese *Cellule d'Analyse des Indicateurs de Développement*, gave further insight in how these provincial idiosyncrasies had effectively been designed, and how they sometimes circulated across provincial boundaries.

Befale
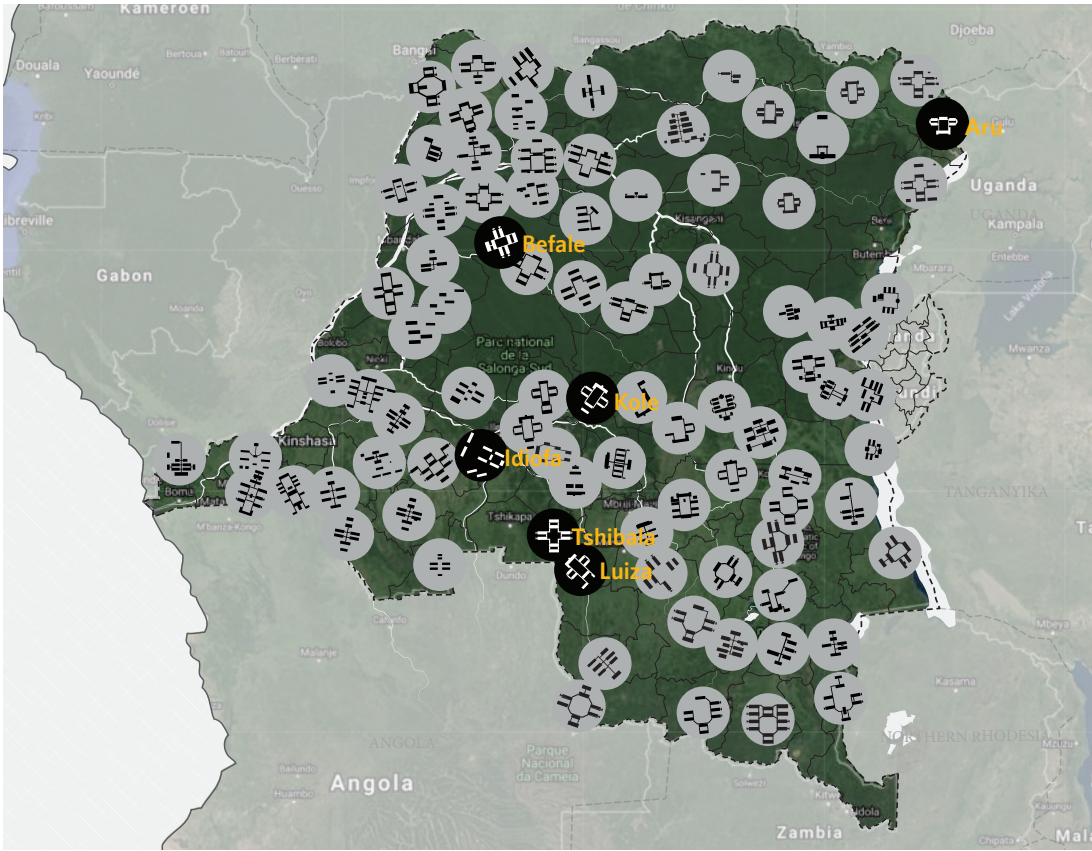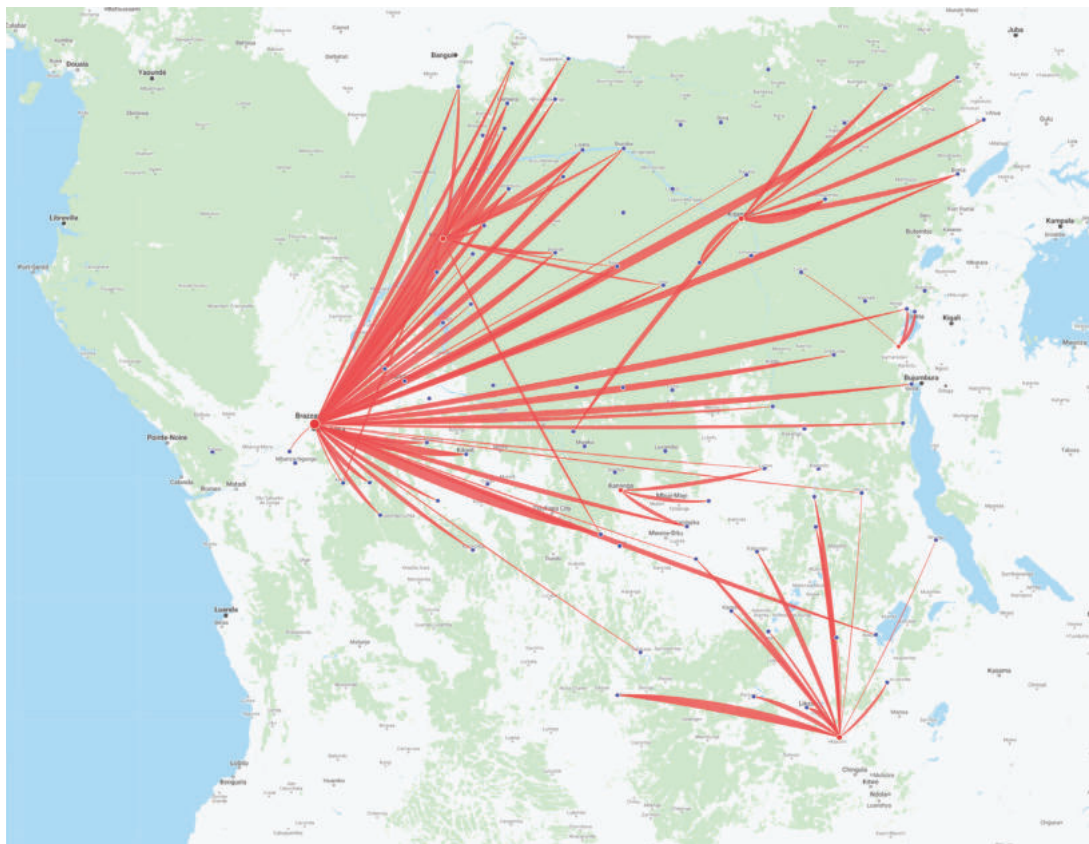

Tshibala

Idiofa

Kole

Aru

Luiza

Mapping of hospital footprints based on colonial plans and aerial photographs

Digital database of public tenders compiled and visualized on nodegoat.net
Every line represents an "entry" of a particular type-plan identification code. It connects the original administrative center where the plan was developed, with the eventual hospital construction site where it was used. This automatic rendering, however, overemphasizes Léopoldville, ignoring the importance of provincial adaptations. Although it thus served as an important intermediate mapping step, I decided to discard it as a final visualization for my PhD.

Simultaneously, I also began scanning the numerous public tenders on hospital construction that were launched by the colonial government and are stored in the colonial archives. As explained in 3/L, these were published in all six provincial capitals, and included the identification codes of the various plans used during construction. In order to properly deploy these codes to map out how type-plans circulated back and forth across various urban centers, I started experimenting with an on-line data modelling tool developed for digital humanities. On nodegoat.net, I could automatically visualize and geolocate an extensive network of circulating plans based on the extensive database I had compiled through these tenders and which included not only state plans, but also plans of parastatal organizations such as the FBEI. While this immediately gave insight in the polycentric *modus operandi* of the colonial administration – questioning the rigid, top-down workflow of the 'Bula Matari' – this mapping tool was not a complete

Léopoldville   Coquilhatville   Stanleyville   Bukavu   Luluabourg   Elisabethville
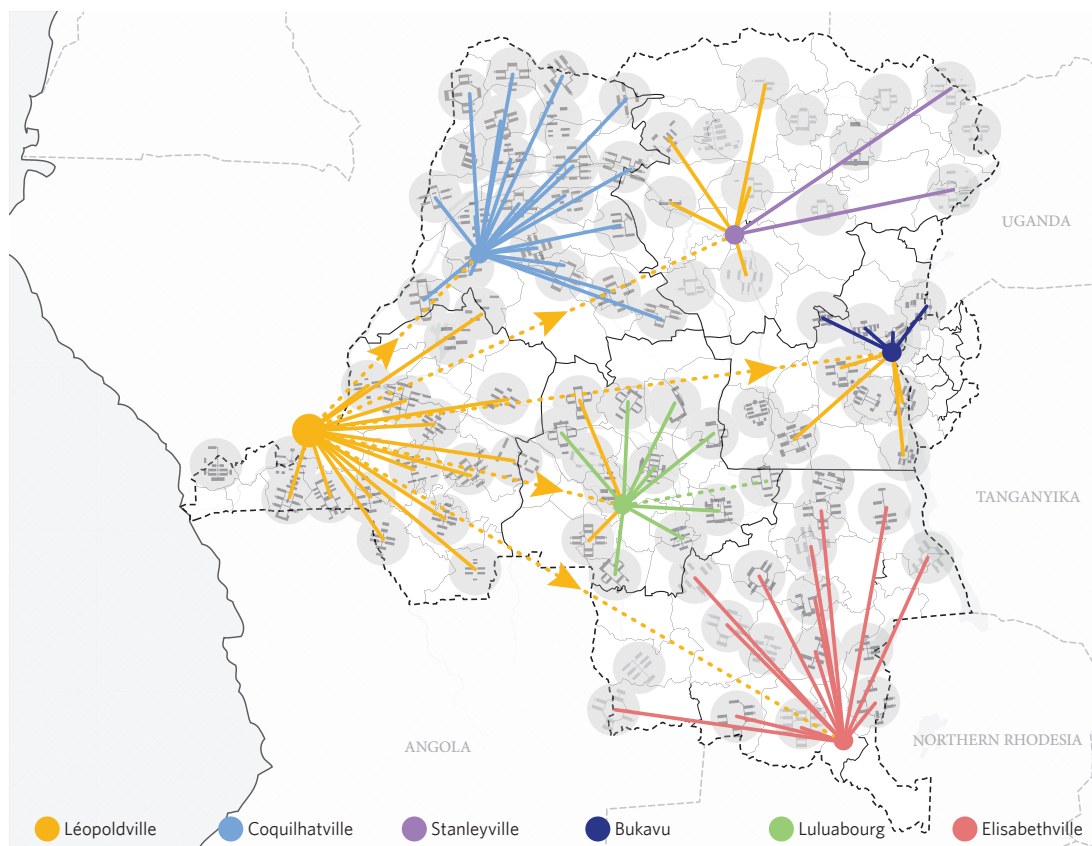
success. The network it visualized did not reflect some of the workflow dynamics my earlier manual mappings had surfaced. It especially ignored the incremental process of the central type-plans becoming "provincialized" by local branches, and graphically overemphasized the direct influence the central Public Works Service of Léopoldville exerted on local hospital construction. To adjust this, I would have had to undertake a rather laborious and artificial adaptation of my original databases, which beats the purpose of using an automated tool in the first place. For the final visualization, I thus decided to return to the (digital) drawing board I was most familiar with as an architect. Based on the various steps throughout this long process of mapping, I manually drew the various connections of circulating plans along, against and beyond the chain of command of the colonial state, and then, for the sake of clarity, I separated this mapping into the three distinguishable layers I have depicted on pages 426, 428, and 434.

What this discussion of my mapping process first and foremost aims to show, is how mapping was not only a way to graphically present my conclusions, but also a visual methodology that helped me to develop these in the first place. It was through meticulously drawing and redrawing these mappings, and through experimentation with alternative tools of data modelling and visualization – which sometimes failed or did not provide completely satisfying results – that I was able to better unpack a workflow of the colonial administration that was hard to understand through textual sources alone. A second conclusion about mapping, however, also seems appropriate: in order to arrive at these conclusions through mapping, I needed *time*. Although I've spread out and divided various steps within this long mapping process across a few distinct pages, this is of course somewhat of an artificial presentation. In reality, this mapping was an iterative process, spanning more than four years, in which I repeatedly revisited, readjusted, and reinterpreted my databases and visualizations. If I had had to derive final conclusions already after my first year of mapping, these would have been much different, less nuanced, and would likely align more with conventional images of Belgian Congo's government apparatus as a 'Bula Matari.' Instead, it was only because I was allowed – thanks to my promotors and the architectural department I was working in, who understand mapping as both an analytical *and* creative process that demands time – to slowly nurture and cultivate my insights, that I could arrive at the more fine-grained conclusions presented in this PhD.

Sources of mappings 3/L

AA/GG 936	Adjudications C.M.C./Centre Medico-Chirurgical/Hopital Aba Bafwasende Et Bunia
AA/GG 941	Adjudication Centre Medico-Chrirugical/C.M.C. (Plans)
AA/GG 941	Adjudications Hopital Pour Indigenes Banningville
AA/GG 942	Adjudications C.M.C./Centre Medico-Chirurgical Kikwit
AA/GG 952	Adjudication C.M.C./Centre Medico-Chirurgical Goma
AA/GG 960	Adjudications C.M.C./Centre Medico-Chirurgical Dilolo Et Dilolo-Gare Et Lubutu Dispensaires C.E.C. Elisabethville
AA/GG 963	Adjudications Divers (E.A. Bureau Dhygiene Luluabourg Hopital Pour Indigenes Luluabourg Centre Medical F.B.E.I. A Sentery Centre Medico-Chirurgical C.M.C. A Mushonge Mweka Et Kabinda)
AA/GG 968	Adjudications Divers C.M.C./Centre Medic0-Chirurgical (E.A. Businga Budjala Basankusu Boende Coquilhatville)
AA/GG 979	Adjudications Divers (E.A. Ecole Assistants Agricoles Bengamisa Habitations Stanleyville Centre Medico-Chirurgical Yabaondo Et Ganga Batiment Animalier Laboratoire Bacteriologie Stanleyville Labo Bunia Hopital Pour Indigenes Stanleyville) Avec Plans
AA/GG 981	Adjudications Divers (Salle De Machines Ptt Pavillons C.M.C. Bureau De Poste) Territoire Libenge
AA/GG 6028	Divers (E.A. Demande Emploi Par Non-Indigenes Pour Constructions Medico-Chirurgicales Requisition Quinine E.A. Medicaments Renseignements Trafic Stupefiants) Territoire Basankusu
AA/GG 6138	Documentation Divers (E.A. Service Batiments Civils Etat Desprit Population Indigene Territoire Djugu O.C.A. Arretes Vente Et Location Terres Note Cohabitation Indigenes Et Non-Indigenes Kitawala Ponthierville Projet Centre Medico-Chirurgical Aru)
AA/GG 6239	F.B.E.I./Fobei/Fbei Divers (E.A Programme 1956-57 Ecoles Rurales Amelioration Habitation Indigene/Fonds Davance Abri Consultation Nourrissons Hopital Kashiobwe Avec Plan Service Hydrologique Fumoirs A Poisson Kasenga) District Haut-Katanga
AA/GG 7180	Service Medical Lisala Reparations Et Constructions Medicales Divers (E.A. Hopital Pour Indigenes Hopital Pour Non-Indigenes Maisons Pour Personnel Indigene Centre Medico-Chirurgical C.M.C. Maternite Pour Indigenes) Lisala
AA/GG 7211	Hygiene Divers (E.A. Transfert Leproserie Lisala A Bondo Projet Centres Medico-Chirurgicaux Ruraux Emidemie Meningite Cerebro-Spinale Territoire Gemena Designation Personnel Medical) District Congo-Ubangi
AA/GG 7715	Divers (E.A. Rapport Maladie Du Sommeil Region Ndolo-Saw 1949 Requisition Quinine 1949 Note Expedition Materiel Medico-Chirurgical 1951 Proces-Verbal De Recrutement Force Publique 1952) Territoire Budjala

AA/GG 7957	Comptabilite Et Comptabilite Des Depenses Engagees/Fiches Budgetaires Pont Bailey/C.M.C./Germoir Elaeis/Remplacement Toitures Maisons/ Entretien Routes/Moniteurs Agricoles Territoire Befale
AA/GG 8446	Construction C.M.C. Centre Medical Chirurgical (E.A. Hopital) Territoire Lisala Avec Plans
AA/GG 8507	Expedition Ciment Centre Medico-Chirurgical Gemena
AA/GG 8629	Construction Centre Medico-Chirurgical Rapports Plans Devis Credits Territoire Gemena
AA/GG 12103	Adjudication Fourniture Menuiseries Metalliques Constructions C.M.C. Province Equateur
AA/GG 12395	Adjudication Cahier Special De Charges Plans Centre Medical Kirotsche
AA/GG 12656	Construction C.M.C. Centre Medico-Chirurgical Lisala Previsions Budgetaires Correspondances Plans
AA/GG 12689	Constructions (E.A.Centre Medico-Chirurgical A Bikoro Location Immeubles Unatra Maisons Office Postal Hangar Pour Passagers Noirs) Lukolela Bikoro Irebu Correspondances Plans
AA/GG 12737	Devis Constructions Diverses (E.A. Hopital Type Foreami Habitations)
AA/GG 12738	Missions Constructions Maternite Hopital Rural Leproserie Devis Correspondances Plans Demande Subsides Etat Et F.B.E.I.
AA/GG 12860	Devis Construction Hopital Type Foreami E.A.
AA/GG 12889	Constructions Centres Medico-Chirurgicaux Budgets Plans Rapports (E.A. Boende Lisala Bikoro Libenge Ikela)
AA/GG 13161	Constructions Medicales Rurales Hopital Territoire Gemena Betonnieres Pour Territoire Gemena
AA/GG 13169	Adjudication Centres Medicaux Chirurgicaux C.M.C. Befale Devis Correspondances Rapports Demande Prix
AA/GG 14333	Fobei/F.B.E.I.Construction Hopital Dubie Territoire Pweto Plans Correspondances Soumissions
AA/GG 15316	Construction Hopital Inongo Construction Dispensaires Ruraux Construction Leproserie Kiri Avec Plans
AA/GG 16485	Registre Inventaire Materiaux Construction C.M.C./Centre Medical-Chirurgie Territoire Bikoro
AA/GG 16630	Construction C.M.C. Centre Medico-Chirurgical/Hopital Befale Avec Plans
AA/GG 16646	Plans Centre Medico-Chirurgical/Hospital
AA/GG 16678	Rapport Mensuel Avancement Travaux C.M.C. Centre Medico-Chirurgical Territoire Befale
AA/GG 17242	Fobei/F.B.E.I.Construction Hopital Dubie Territoire Pweto Plans Correspondances Soumissions
AA/GG 17303	Instrumentation Medico-Chirurgicale Modele Ministere Des Colonies En Cinq Malles Et A Quatre Malles Avec Inventaire
AA/GG 17330	Centre Medico-Chirurgical C.M.C. Basankusu Cahier Special Des Charges Plans Factures Releves Rapport Avancement Des Travaux
AA/GG 18186	Projet Fonds Du Bien-Etre Indigene-Fomulac/Construction Hopitaux Ruraux Avec Plans

AA/GG 19738	Divers (E.A. Requisition Quinnine Instructions Rage Registre Filles Publiques/Prostitution Recensement Medical Liste Constructions Medico-Chirurgicales Equipement Hygiene Maisons) Territoire Bongandanga
AA/GG 20721	Secteur Medical Lac Leopold Ii Controle Dispensaire Bikaki Mobilier Cercle Kiri Remise-Reprise Cercle Kirk Materiel De Construction Hopital Kiri.
AA/GG 22601	Devis Et Plans Centre Medico Chirurgical Type Dune Formation Medicale Territoriale Avec Section Dhospitalisation Pour Europeens
AA/3DG 514	4. Programme B.C. et T.P.1950-1951. (e.a. note medicales en zones rurales et centres urbains tableau situation crédits prévus Otraco Conseil Supérieur des Cités Indigènes et Régideso économies de main doeuvre Rapport sur lexécution du Plan.
AA/3DG 523	4. 1951-1953. Contrat et devis construction centre médico-chirurgical Ponthierville
AA/3DG 547	3. Goma. 1955. C.M.C. Plans.
AA/3DG 547	2. C.M.C. Mutwanga. - Cahier spécial des charges et plans.
AA/3DG 549	10. - Kikwit. 1951. Centre médico-chirurgical type d'une formation médicale territoriale. 'Cahier spécial des charges' et plans.
AA/3DG 601	1. 1949 ; 1954-1955. Programme Plan Décennal et budgets ; Question hôpital Moanda et base militaire Kitona ; 'Relevé de la répartition des crédits pour constructions à usage médical en zones rurales en 1946-1947 et 1948' ; Plans centre médico-chirurgical.
AA/3DG 634	3. Aba-Centre médico-chirurgical. Cahier spécial des charges et plans.
AA/3DG 665	3. Ganga-Centre médico-chirurgical. 1951. Fourniture tôles. Cahier spécial des charges.
AA/3DG 982	4. Kikwit 1952. Centre médico-chirurgical. Cahier spécial des charges et plans.
AA/3DG 982	2. Bunia - Centre médico-chirurgical. 1952. Cahier spécial des charges et plans.
AA/3DG 982	1. Banningville. 1952. Hôpital pour Congolais. 'Cahier spécial des charges' et plans.
AA/3DG 988	1. Financement européen C.E.C. 1958-1961. Construction centre médico-chirurgical de 200 lits à Doruma
AA/3DG 1022	7. Jadotville. 1953. Pavillon d'hospitalisation en annexe de l'hôpital des indigènes à Jadotville. 'Cahier spécial des charges et plan.
AA/3DG 1152	30. Goma. 1955. C.M.C. Cahier spécial des charges et plans.
AA/3DG 1152	31. Bukama. 1953. 2 pavillons médicaux. 'Cahier spécial des charges' et plans.
AA/FOR 4668	371. Plans. 1. Station-Pilote à Usumbura. 1958. Avec cahier spécial des charges 2. Station-Pilote à Pay-Kongila. 1958. Avec cahier spécial des charges. 3. Hôpital de la Rive-pavillon foyer social Home Albert Elisabeth. 1959. 4. Dispensaire hospitalisation 12 lits ; Logement pour 8 lépreux ; Lavoir buanderie ; Placement fenêtres Naco.

AA/FOR 4669	5. Divers. 1958. (e.a. dispensaire hospitalisation 22 lits ; maison pour lépreux ; maison d'infirmier congolais 3 chambres ; magasins et traitement ulcères ; maison d'habitation pour religieuses ; léproserie maternité et galerie ; dispensaire mixte consultation et dispensaire)
AA/FOR 4669	6. F.B.E.I. 1954-1957 (e.a. pavillon d'hospitalisation 20 lits ; foyer social rural et consultation des nourrissons ; dispensaire ; maternité)
AA/FOR 4669	7. Kivu-Service Médical Provincial. 1952 (e.a. pavillon dispensaire ; habitation quadruple pour lépreux ; habitation pour un aumônier catholique) et O.C.A. 1954 (habitations pour congolais-maisons jumelées)

2. Archives

Africa Archives, Brussels

Collection *Gouvernement Général* (GG)

AA/GG 911	Service Medical Divers (E.A. Rapport D'Inspection Hopital Pour Indigenes Leopoldville-Est/District Sankuru/District Kwango (Avec Photos)/Hygiene Du Travail Et Centres Thysville-Matadi-Boma (Avec Photos)/Compagnie Africaine Des Eaux Gazeuses)
AA/GG 936	Adjudications C.M.C./Centre Medico-Chirurgical/Hopital Aba Bafwasende Et Bunia
AA/GG 936	Adjudications Magasin Service Hygiene Et Hopital Pour Indigenes Stanleyville
AA/GG 941	Adjudications Hopital Des Congolais/Hopital Pour Indigenes Leopoldville (Plans)
AA/GG 941	Adjudication Centre Medico-Chrirugical/C.M.C. (Plans)
AA/GG 941	Adjudications Hopital Pour Indigenes Banningville
AA/GG 942	Adjudications C.M.C./Centre Medico-Chirurgical Kikwit
AA/GG 952	Adjudication C.M.C./Centre Medico-Chirurgical Goma
AA/GG 960	Adjudications F.B.E.I./Foreami Batimensts Medicaux Divers (Plans)
AA/GG 960	Adjudications C.M.C./Centre Medico-Chirurgical Dilolo Et Dilolo-Gare Et Lubutu Dispensaires C.E.C. Elisabethville
AA/GG 960	Adjudication Batiments Hopital Pour Indigenes Jadotville
AA/GG 963	Adjudications Divers (E.A. Bureau Dhygiene Luluabourg Hopital Pour Indigenes Luluabourg Centre Medical F.B.E.I. A Sentery Centre Medico-Chirurgical C.M.C. A Mushonge Mweka Et Kabinda)
AA/GG 968	Adjudications Divers C.M.C./Centre Medic0-Chirurgical (E.A. Businga Budjala Basankusu Boende Coquilhatville)
AA/GG 979	Adjudications Divers (E.A. Ecole Assistants Agricoles Bengamisa Habitations Stanleyville Centre Medico-Chirurgical Yabaondo Et Ganga Batiment Animalier Laboratoire Bacteriologie Stanleyville Labo Bunia Hopital Pour Indigenes Stanleyville) Avec Plans
AA/GG 981	Adjudications Divers (Salle De Machines Ptt Pavillons C.M.C. Bureau De Poste) Territoire Libenge
AA/GG 5533	Hygiene Divers (E.A. Maladie Su Sommeil Madimba Et Kwamouth Credits/Budget Service Dentaire Notes Etiologiques Personnel Reglement Hopital Croix Rouge Tuberculose Attributions Medecin Hygieniste) District Moyen-Congo
AA/GG 6028	Divers (E.A. Demande Emploi Par Non-Indigenes Pour Constructions Medico-Chirurgicales Requisition Quinine E.A. Medicaments Renseignements Trafic Stupefiants) Territoire Basankusu

AA/GG 6138	Documentation Divers (E.A. Service Batiments Civils Etat Desprit Population Indigene Territoire Djugu O.C.A. Arretes Vente Et Location Terres Note Cohabitation Indigenes Et Non-Indigenes Kitawala Ponthierville Projet Centre Medico-Chirurgical Aru)
AA/GG 6239	F.B.E.I./Fobei/Fbei Divers (E.A Programme 1956-57 Ecoles Rurales Amelioration Habitation Indigene/Fonds Davance Abri Consultation Nourrissons Hopital Kashiobwe Avec Plan Service Hydrologique Fumoirs A Poisson Kasenga) District Haut-Katanga
AA/GG 7180	Service Medical Lisala Reparations Et Constructions Medicales Divers (E.A. Hopital Pour Indigenes Hopital Pour Non-Indigenes Maisons Pour Personnel Indigene Centre Medico-Chirurgical C.M.C. Maternite Pour Indigenes) Lisala
AA/GG 7203	Previsions Budgetaires Construction Hopital Pour Indigenes Boma Et Dispensaires Cite Leopoldville-Est Avec Plans
AA/GG 7211	Hygiene Divers (E.A. Transfert Leproserie Lisala A Bondo Projet Centres Medico-Chirurgicaux Ruraux Emidemie Meningite Cerebro-Spinale Territoire Gemena Designation Personnel Medical) District Congo-Ubangi
AA/GG 7325	Construction Et Entretien Hopital Pour Indigenes Leopoldville
AA/GG 7715	Divers (E.A. Rapport Maladie Du Sommeil Region Ndolo-Saw 1949 Requisition Quinine 1949 Note Expedition Materiel Medico-Chirurgical 1951 Proces-Verbal De Recrutement Force Publique 1952) Territoire Budjala
AA/GG 7957	Comptabilite Et Comptabilite Des Depenses Engagees/Fiches Budgetaires Pont Bailey/C.M.C./Germoir Elaeis/Remplacement Toitures Maisons/ Entretien Routes/Moniteurs Agricoles Territoire Befale
AA/GG 8446	Construction C.M.C. Centre Medical Chirurgical (E.A. Hopital) Territoire Lisala Avec Plans
AA/GG 8507	Expedition Ciment Centre Medico-Chirurgical Gemena
AA/GG 8629	Construction Centre Medico-Chirurgical Rapports Plans Devis Credits Territoire Gemena
AA/GG 10008	Marche Couvert De Leopoldville
AA/GG 10686	Emplacement Hôpital Pour Européens Élisabethville
AA/GG 10929	P.V. Des Seances Du Comite Urbain De La Ville D'Elisabethville
AA/GG 12103	Adjudication Fourniture Menuiseries Metalliques Constructions C.M.C. Province Equateur
AA/GG 12386	Documentation Plans Hopitaux
AA/GG 12374	Adjudication Plans Hopital Des Blancs Hopital Des Noirs Couvent Soeurs Irebu
AA/GG 12374	Adjudication Plans Hopital Des Blancs Hopital Des Noirs Coquilhatville (2 Dossiers)
AA/GG 12395	Adjudication Cahier Special De Charges Plans Centre Medical Kirotsche
AA/GG 12641	Nouvel Hopital Pour Europeens Coquilhatville Correspondances Plans Mobilier Installations Rapports Adjudications Renouvellements

AA/GG 12656	Construction C.M.C. Centre Medico-Chirurgical Lisala Previsions Budgetaires Correspondances Plans
AA/GG 12689	Constructions (E.A.Centre Medico-Chirurgical A Bikoro Location Immeubles Unatra Maisons Office Postal Hangar Pour Passagers Noirs) Lukolela Bikoro Irebu Correspondances Plans
AA/GG 12737	Devis Constructions Diverses (E.A. Hopital Type Foreami Habitations)
AA/GG 12738	Missions Constructions Maternite Hopital Rural Leproserie Devis Correspondances Plans Demande Subsides Etat Et F.B.E.I.
AA/GG 12836	Voirie Et Egouts Coquilhatville Correspondances Plans
AA/GG 12860	Devis Construction Hopital Type Foreami E.A.
AA/GG 12889	Constructions Centres Medico-Chirurgicaux Budgets Plans Rapports (E.A. Boende Lisala Bikoro Libenge Ikela)
AA/GG 12935	Installation D'Une Buanderie-Cuisine Et Desinfection A Vapeur A L'Hopital Des Noirs A Coquilhatville Correspondances Devis Plans
AA/GG 12935	Hopital Des Noirs A Coquilhatville Correspondances Devis Plans (3 Dossiers)
AA/GG 13161	Constructions Medicales Rurales Hopital Territoire Gemena Betonnieres Pour Territoire Gemena
AA/GG 13161	Constructions Medicales Rurales Hopital Territoire Libenge Correspondances Plans Devis
AA/GG 13161	Constructions Medicales Rurales Hopital Territoire Gemena Betonnieres Pour Territoire Gemena
AA/GG 13169	Adjudication Centres Medicaux Chirurgicaux C.M.C. Befale Devis Correspondances Rapports Demande Prix
AA/GG 14333	Fobei/F.B.E.I.Construction Hopital Dubie Territoire Pweto Plans Correspondances Soumissions
AA/GG 14730	Route Acces Hopital Europeens Leopoldville/Kalina Jardins Clinique Reine Elisabeth Correspondances Et Plans
AA/GG 14776	Hopital Pour Indigenes Coquilhatville Rapport Mensuel Et Plans
AA/GG 14787	Construction Hopital Pour Europeens Coquilhatville Correspondances Devis Plans
AA/GG 14927	Construction Hopital Des Noirs/Indigenes Leopoldville Avec Plans
AA/GG 15020	Hopital Pour Noirs/Indigenes Leo-Ouest Grosses Reparations 1933 Camp Des Policiers Leo-Est Avec Plans 1934-35
AA/GG 15025	Constructions Amenagement Lazaret Alienes Latrines Camp Leopoldville Installations Sanitaires Pour Indigenes A La Clinique Reine Elisabeth Hopital Pour Europeens Kalina Lutte Contr Fievre Jaune Eclairage Cite Indigene Deplacement Magasin Avec Plans
AA/GG 15180	Personnel Indigene Construction Hopital Des Noirs Ponthierville 1911; Lazarets Pour Epidemies A Boma Et A Matadi 1912; Precautions Pour Combattre Fievre Jaune 1912; Projet Budget 1913 Note Explicative Maladie Su Sommeil Fonds Special 1914
AA/GG 15316	Construction Hopital Inongo Construction Dispensaires Ruraux Construction Leproserie Kiri Avec Plans

AA/GG 15610	Cercle Medical Kiri/Inongo Registres Maladies Examines/Registre Des Dispensaires
AA/GG 15723	Surete ? Liste Des Passagers Bateaux Arrivant Ou Quittant Inongo/Kiri
AA/GG 15764	Generalites Lazarets Hopitaux Pour Indigenes Hopitaux Pour Europeens Divers (E.A. Reglement Situation Tarifs Hopital/Sanatorium Croix Rouge Banana)
AA/GG 15790	Construction Laboratoire De Bactereologie Devis Et Plans
AA/GG 15790	Projet Construction Laboratoire Et Internat Pour A.M.I. Et Gardes Sanitaires Leopoldville Avec Plans
AA/GG 15790	Constructions Hopital Pour Indigenes Coquilhatville Avec Plans
AA/GG 15799	Constructions Divers (E.A. Logement Detenus Non-Indigenes Ecole Professionnelle Ecole A.M.I. Ecole Pour Jeunes Filles Prison Leopoldville Amenagement Hopitaux Leopoldville Couvent Soeurs Franciscaines Abattoir) (Avec Plans)
AA/GG 15812	Mission Maertens Divers (E.A. Comptabilite Rapports Instructions Inventaires)
AA/GG 15812	Hopital Maternite Dispensaire Plan-Type
AA/GG 15816	Construction Hopital Pour Europeens Et Hopital Pour Indigenes Matadi/ Leopoldville Avec Plans
AA/GG 15819	Divers (E.A. Remboursement S.I.M.A.K. Installations C.I. Uvira Et Costermansville Construction Immeubles B.C.B. Ecole Pensionnat Habitations/Maisons Pour Indigenes Hopital Des Noirs Prison Centrale Habitations Magistrats Costermansville) Avec Plans
AA/GG 15833	Construction Hopital Des Noirs/Indigenes A Boma 1914-18; Construction Hopital Pour Europeens A Boma 1918-19 Avec Plans; Amenagement Hopital Croix-Rouge A Boma 1915-18
AA/GG 15840	Hopital Des Noirs/Indigenes A Elisabethville Adjudication Et Plans
AA/GG 15899	Construction Et Ameliorationhopital Pour Europeens/Clinique Reine Elisabeth A Kalina Avec Plans
AA/GG 15920	Hopital Pour Indigenes Et Hopital Pour Europeens Albertville Elisabethville Etc. Avec Plans
AA/GG 15922	Construction Hopital Pour Europeens A Kalina Avec Statistiques Des Hospitalises 1922-26
AA/GG 15953	Hopital Pour Europeens Et Hopital Pour Noirs/Indigenes Elisabethville Kongolo Bukama
AA/GG 15956	Travaux A Executer Sur Budget Extraordinaire B.E. 1920
AA/GG 15958	Hopital/Lazaret Pour Noirs/Indigenes Inongo Et Basankusu Toiture Habitation Substitut Du Roi Libenge Credits Batiments Cadastre Habitations District Bas-Uele)
AA/GG 16336	Adjudication/Plans Hopital Des Noirs/Indigenes Leopoldville
AA/GG 16485	Registre Inventaire Materiaux Construction C.M.C./Centre Medical-Chirurgie Territoire Bikoro
AA/GG 16630	Construction C.M.C. Centre Medico-Chirurgical/Hopital Befale Avec Plans

AA/GG 16646	Plans Centre Medico-Chirurgical/Hospital
AA/GG 16678	Rapport Mensuel Avancement Travaux C.M.C. Centre Medico-Chirurgical Territoire Befale
AA/GG 16807	Hopital Des Europeens Leopoldville Croix Rouge Comptabilite Frais D'Hospitalisation
AA/GG 16807	Lazaret/Hopital Des Noirs/Sanatorium Banana Divers (E.A. Projet Et Infirmieres Religieuses
AA/GG 16845	Divers (E.A. Tarif D'Hospitalisation Hopitaux Leopoldville/Boma Plaintes Concernant Hopitaux Inspection Batiments Sanatorium Banana)
AA/GG 16850	Construction Hopitaux Divers (E.A. Albertville Hopital Delmee Elisabethville Hopital Des Noirs Elisabethville Transfert Alienes A L'Afrique Du Sud Hopital Des Blances Lisabethville Avec Plans Et Photos Reglement Administratif)
AA/GG 16851	Divers Soeurs Infirmieres (E.A. Conventions Hopitaux Du Bas-Congo (E.A. Hopital Croix Ouge Leopoldville))
AA/GG 16854	Rapport Du Dr Druart Au Sujet De Son Voyuage A St Paul De Loanda Angola
AA/GG 16854	Incident Entre Soldats Et Infirmiers Indigenes Hopital Des Noirs Boma
AA/GG 17242	Fobei/F.B.E.I.Construction Hopital Dubie Territoire Pweto Plans Correspondances Soumissions
AA/GG 17303	Instrumentation Medico-Chirurgicale Modele Ministere Des Colonies En Cinq Malles Et A Quatre Malles Avec Inventaire
AA/GG 17330	Centre Medico-Chirurgical C.M.C. Basankusu Cahier Special Des Charges Plans Factures Releves Rapport Avancement Des Travaux
AA/GG 18186	Projet Fonds Du Bien-Etre Indigene-Fomulac/Construction Hopitaux Ruraux Avec Plans
AA/GG 19395	Instructions Organisation Et Gestion Hopitaux Frais D'Hospitalisation; Organisation Hopital Coquilhatville Lisala Banzyville Bumba Djolu Libenge Basankusu Boende Irebu; Adjudications Vivres Etc. 1944-49
AA/GG 19567	Comite Urbain Leopoldville 'Note Pour Monsieur Le Ministre Des Colonies Sur Divers Problemes Relatifs Au District Urbain De Leopoldville'
AA/GG 19738	Divers (E.A. Requisition Quinnine Instructions Rage Registre Filles Publiques/Prostitution Recensement Medical Liste Constructions Medico-Chirurgicales Equipement Hygiene Maisons) Territoire Bongandanga
AA/GG 20458	Arrivee Religieuses Infirmieres Pour Hopitaux Et Lazarets Boma Et Leopoldville
AA/GG 20458	Hygiene Divers (E.A. Cultures Vivrieres Nominations Autorite Medicale Visa Medical Passagers Indigenes Debroussaillement Et Hygiene Ville Note Article De Presse Hopital Croix Rouge Commission D'Hygiene Prime Hygiene) District Urbain Leopoldville
AA/GG 20721	Secteur Medical Lac Leopold Ii Controle Dispensaire Bikaki Mobilier Cercle Kiri Remise-Reprise Cercle Kirk Materiel De Construction Hopital Kiri.

AA/GG 22315	Hopital Pour Blancs A Coquilhatville Plans
AA/GG 22428	Divers (E.A.Eleves Infirmiers E.A.M.I. Instructions Lutte Anti-Amarile Registre Visites Medicales; Instructions Subside Entretien Lepreux Frais Entretien Malades Hopital) Territoire Coquilhatville; (Documents Melanges)
AA/GG 22451	Divers (E.A. Poubelles Hygiene Ferme Des Boues Travaux Hopital Et Lazaret Plans Pharmacie Centrale) District Urbain Leopoldville (Documents Melanges)
AA/GG 22601	Devis Et Plans Centre Medico Chirurgical Type Dune Formation Medicale Territoriale Avec Section Dhospitalisation Pour Europeens

Collection *Hygiène* (H)

AA/H 838	111-139.Rapports sanitaires.
AA/H 842	140-143. Correspondance Générale. (lazarets maladie du sommeil)
AA/H 842	186. Hôpital des noirs à Boma/hôpital de le Croix-Rouge de Boma.
AA/H 843	149. Boma.1908 1913. (avec rapport annuel 1911 et 1912 ; extrait registre des malades 1910-1912).
AA/H 862	834. Documents. 1888; 1891; s.d. (e.a. annexe de la convention avec Pères de Scheut ; instruction factures ; demande souscription ; p.v. remise-reprise trésorerie ; projet ambulance Anversoise de la Croix Rouge Congolaise à Boma ; Arrêté Royal formation Association Africaine de la Croix Rouge)
AA/H 4387	32. Réorganisation et extension du Service de l'Hygiène à la Colonie. 1946 1948. (e.a. mission Duren et Thomas ; budget ; 'Réorganisation et extension des Services médicaux-rapport sur les travaux de la Commission des médecins' ; exposé des problèmes ; Plan décennal)
AA/H 4390	1912 1913; 1920; 1928-1933 (avec devis estimatif des travaux 1932 et 'Renseignements sur les fonds spéciaux accordés par leurs majestés le Roi et la Reine pour l'hygiène dans la Colonie 1928.
AA/H 4390	178. Organisation, Fonctionnement, Règlement, Tarifs d'Hospitalisation. 1908 ; 1912–1914 ; 1918 1940.
AA/H 4390	179. Installations, Bâtiments, Matériel. 1908 1913; 1920 1931; 1942. (e.a. listes et statistiques ; caisse de chirurgie-modèle de l'E.I.C. et modèle du Ministère des Colonies ; schéma d'installation d'un hôpital pour noirs ; plan lazaret Coquilhatville ; questionnaire construction hôpital type pour européens ; proposition cabanon pour aliénés Boma avec statistiques ; offre Catanika pour l'occupation de ses bâtiments à Baudouinville).
AA/H 4390	180. Divers. 1908 1914; 1919 1938; 1944; 1948. (e.a. carte Distribution of medical services of government and missions-Congo belge ; carte postes sanitaires ; note établissements hospitaliers de Boma, Banana et Léopoldville ; listes des centres médicaux du Congo belge. Etat, Sociétés, Missions et Privés ; listes médecins ; observations mission Dr Duren ; Association belge des Hôpitaux).
AA/H 4391	185. Hôpital des blancs à Boma.(1894 1897); 1907 1925. Sous dossier : Pavillons de la Croix Rouge à Boma. 1908 1911.
AA/H 4393	200. Hôpital de Kinshasa.1923 1929. (e.a. convention avec Congrégation des Chanoinesses de St-Augustin ; règlement et tarifs ; départ des soeurs ; listes)
AA/H 4393	202. Hôpital de la Croix Rouge à Léopoldville.1907 1910. Suite : voir dossier n° 203 (e.a. inventaires ; convention avec Association Congolaise et Africaine de la Croix Rouge ; rapports trimestriels ; projet de règlement pour le sanatorium de Léopoldville)
AA/H 4393	204. Hôpital des noirs à Léopoldville.1908 1910. Rapports annuels
AA/H 4420	606. Notes diverses.1911 1913 ; 1924-1928. (e.a. renseignements pour rapport annuel 1913, 1912, 1911 et 1924 ; 'Conférence sur la situation sanitaire du Congo belge' 1926 ; listes institutions et résidences médicales 1926 ; propositions organisation Service Médical avec observations 1927)

AA/H 4426	639. 1927. Avec : Statistiques 1925 ; Liste nominative médecins Colonie ; Organisation nouvelle ; Indemnité de charge et clientèle privée ; Note accusations contre Mission médicale du Kwango/Mission Schwetz ; A.R. statut Service de l'Hygiène ; 'Considérations sur le service de l'Hygiène de la Colonie' ; 'Liste des établissements hospitalières existants ou en voie de construction dans la Colonie à la date du 1 décembre 1927 ; 'Note concernant les conditions d'engagement des infirmières au service de la Colonie' ; 'Le personnel infirmier des hôpitaux'
AA/H 4426	641. 1928. Avec : Rapport Nolf et observations/réponses-'La protection médicale de la main d'oeuvre indigène'/''Hygiène des Belges au Congo'/'La maladie du sommeil'/'Hôpitaux pour noirs de Léopoldville et Institut de Recherche médicale'/'La fièvre jaune (Typhus amaril) au Congo'/'L'Organisation du Service médical au Congo' ; Crédit pour laboratoire de Léopoldville ; Tableau situation personnel Service Hygiène 1928
AA/H 4470	942.1. Dénombrement et classification. 1947 1949. Notes et recueils. 942.2. 'Dénombrement et classification des établissements du service médical du gouvernement de la Colonie, rangés par province et par ordre d'importance décroissant dans chacune, pour servir de base au programme d'extension et de consolidation du Service médical du Congo belge et du Ruanda-Urundi. 1948
AA/H 4470	943-946. Asiles d'Aliénés.
AA/H 4471	951. Hôpitaux d'Elisabethville. 1951 1956.
AA/H 4471	952. Hôpital Reine Elisabeth à Léopoldville. 1958. Demande d'explications concernant retards aux travaux
AA/H 4472	953. Hôpital des Congolais à Léopoldville. 1946 1958. (e.a. propositions, projet et observations ; photo maquette ; plans avant-projet)
AA/H 4474	980. Dispensaires, centres médico chirurgicaux et hôpitaux. Généralités. 1952 1960.
AA/H 4475	981. Construction d'hôpitaux. 1951 1958. (e.a. photo du nouvel hôpital en construction dans la commune africaine de Kadutu à Bukavu ; 'Activités de l'O.M.S. en Afrique' ; surfaces requises ; rapport retard s et besoins ; offre maisons préfabriqués en aluminium/métal ; plans maison type à 2 et 3 chambres Katanga)
AA/H 4520	1257. Correspondance générale. 1957-1962. (e.a. propriété des bâtiments érigés au moyen subsides F.B.I. ; 'Les réalisations du Fonds du Bien-Etre indigène au Ruanda-Urundi' ; 'Le problème de l'eau en milieu rural au Congo et au Ruanda-Urundi')
AA/H 4520	1258. Création. 1946-1948. Commission pour l'étude de la constitution et des modalités d'utilisation d'un fonds pour l'amélioration de la condition sociale des indigènes de la colonie-PV séance 16.10.1946 ; Commission pour l'étude de la constitution et des modalités 'utilisation du Fonds Social Indigène-rapport d'ensemble des travaux ; Avant-projet d'arrêté Fonds Social indigène ; Liste A.M. et A.R. membres Conseil d'Administration F.B.E.I.
AA/H 4520	1261. Délégation crédits. Hôpital Ganga 1954 et C.M.C. Gandajika 1957

AA/H 4520	1262. Réalisations dans le domaine de la santé. 1951-1957. (e.a. 'Le Fonds du Bien-Etre Indigène.' 1947-1951 ; reprise par Foreami zone de Panzi ; 'Participation au Plan Décennal-Budget 1953-Action médico-sociale' ; listes des hôpitaux-C.M.C. Colonie/A.M.M./Missions étrangères/Sociétés 1952 ; 'Les réalisations du F.B.I. dans le domaine de la santé publique' 1947-1956)
AA/H 4521	1267. Politique du FBEI dans le domaine Médical. 1949-1950 ; 1955. (e.a. note plan d'action ; intervention dans création centres médico-chirurgicaux ; principes)
AA/H 4532	1338. Experts médicaux de l'OMS. 1950 1964. (e.a. avis et renseignements de recrutement ; notes individuelles des experts belges ; liste des membres belges des tableaux d'experts)
AA/H 4532	1339. Correspondance diverse. 1956-1962. (e.a. constitution et amendements ; instructions envoi par poste des matières biologiques ; prix « Darling » ; notes d'envoi documents ; note coopération Belgique-O.M.S.)
AA/H 4538	1369. Conférence sur la Coopération Médicale. Léopoldville, 29 sept. au 6 oct. 1955 Farde de documentation
AA/H 4539	1374. Listes des réunions et conférences projetées.1957-1962. Documents
AA/H 4539	1375. Liste des documents diffusés. 1955-1961. Documents
AA/H 4566	1523. Historique et organisation du Service Médical au Congo Belge Services Médicaux – Situation Sanitaire – Santé Publique. 1947-1957.
AA/H 4570	1534. 1er Plan Décennal (1950-1959). 1948-1954.

Collection *Département Travaux Publics* (3DG)

AA/3DG 187	1. Gilson à Bukavu, Stanleyville et Usumbura. 1948-1953. Stanleyville et Costermansville.
AA/3DG 188	2. Plan particulier zone hospitalière à Elisabethville. 1950-1952 ; 1954. (e.a. question implantation hôpital congolais ; question groupement laboratoires de recherches ; cartes avec mémoire)
AA/3DG 192	2. Hôpital des noirs/indigènes/Congolais à Elisabethville. Plan d'implantation ; Limites parcelle. 1956.
AA/3DG 192	3. Hôpital des noirs/indigènes/Congolais à Elisabethville. Avant-projet hôpital des Congolais. Plans n°s 141 à 149. 1954.
AA/3DG 192	4. Hôpital des noirs/indigènes/Congolais à Elisabethville. Avant-projet hôpital des indigènes. Plans n°s 1 à 19. s.d.
AA/3DG 192	5. Hôpital des noirs/indigènes/Congolais à Elisabethville. Plans n°s 283 à 288, 291, 294, 295, 299+, 300, 302, 305 à 308, 318 et 321. 1955-1956.
AA/3DG 192	1. Architecte Grosjean. Rez-de-chaussée, étages, phases de réalisation.
AA/3DG 193	1. Hôpital des noirs/indigènes/Congolais à Elisabethville. Divers. 1953-1956. (e.a. observations plans et cahier spécial des charges ; correspondances et entretiens avec Van Malleghem ; plan hospitalisation, maternité et gynécologie ; plans avant projet 1954 n°s 150 à 158 (N° 141 à 149 modifiés) ; plan proposition implantation ; 'Compromis' ; propositions et contre-propositions ; 'Devis estimatif')
AA/3DG 195	2. Hôpital des noirs/indigènes/Congolais. Divers. 1948-1955 ; 1956 ; 1958 ; 1961. (e.a. note de transmission dossiers 'affaire Ricquier' 1961 ; question lenteur ; plans avec observations ; proposition admission Riessauw-conseiller technique ; essais de pénétration ; honoraires ; projet et observations)
AA/3DG 195	3a. Hôpital indigène Léopoldville. Avant-projet implantation et blocs 1, 3, 5, 6 et 8. 1952.
AA/3DG 195	3b. Hôpital des noirs Léopoldville. Rez-de-chaussée, étages, façades et coupes. Plans n° R1 à R11. 1954.
AA/3DG 195	3c. Hôpital des Congolais à Léopoldville. Avant-projet fondations. Plan d'ensemble bloc A, blocs B & C, Bloc C et Bloc D. Plans N°s 1 à 4. 1957
AA/3DG 394	1. Hôpital des noirs/indigènes/Congolais à Elisabethville. Cahier spécial des charges. Construction d'un complexe hospitalier congolais à Elisabethville' avec plans 280-282bis, 283bis, 289-290, 292, 296-297, 301, 303-304, 309-317, 319-323, 325, 328-331, 348, 363-367. 1955-1956
AA/3DG 514	4. Programme B.C. et T.P.1950-1951. (e.a. note medicales en zones rurales et centres urbains tableau situation crédits prévus Otraco Conseil Supérieur des Cités Indigènes et Régideso économies de main doeuvre Rapport sur lexécution du Plan.
AA/3DG 523	4. 1951-1953. Contrat et devis construction centre médico-chirurgical Ponthierville
AA/3DG 547	3. Goma. 1955. C.M.C. Plans.
AA/3DG 547	2. C.M.C. Mutwanga. - Cahier spécial des charges et plans.

AA/3DG 549	10. - Kikwit. 1951. Centre médico-chirurgical type d'une formation médicale territoriale. 'Cahier spécial des charges' et plans.
AA/3DG 601	1. 1949 ; 1954-1955. Programme Plan Décennal et budgets ; Question hôpital Moanda et base militaire Kitona ; 'Relevé de la répartition des crédits pour constructions à usage médical en zones rurales en 1946-1947 et 1948' ; Plans centre médico-chirurgical.
AA/3DG 601	1. 1949 ; 1954-1955. Programme Plan Décennal et budgets ; Question hôpital Moanda et base militaire Kitona ; 'Relevé de la répartition des crédits pour constructions à usage médical en zones rurales en 1946-1947 et 1948' ; Plans centre médico-chirurgical.
AA/3DG 619	4. C.C.T.A.-Comité interafricain de l'habitat. 1954-1957. (e.a. réunions-documents imprimés et rapport délégué ; recommandations)
AA/3DG 634	3. Aba-Centre médico-chirurgical. Cahier spécial des charges et plans.
AA/3DG 665	3. Ganga-Centre médico-chirurgical. 1951. Fourniture tôles. Cahier spécial des charges.
AA/3DG 680	2. Colonial Office-Department of Scientific and Industrial Research. 1949-1956. Envois documentation Building Research Station ; 'Colonial Building Notes'
AA/3DG 767	8. Plans des terrains. 191?-192? Kabinda
AA/3DG 859	3. 'Plan général d'aménagement de Léopoldville. Mémoire' 1950. ; Carte Léopoldville 'sondages' s.d.
AA/3DG 982	3. Matadi-hôpital pour indigènes. 1952. Groupe d'hospitalisation et de radiographie. 'Cahier spécial des charges' et plans.
AA/3DG 982	4. Kikwit 1952. Centre médico-chirurgical. Cahier spécial des charges et plans.
AA/3DG 982	2. Bunia - Centre médico-chirurgical. 1952. Cahier spécial des charges et plans.
AA/3DG 982	1. Banningville. 1952. Hôpital pour Congolais. 'Cahier spécial des charges' et plans.
AA/3DG 984	12. Hôpitaux pour indigènes. 1947. (e.a. Congrès colonial 'Evolution de nos méthodes d'assistance médicale dans les zones rurales de la colonie. L'Occupation médicale territoriale' ; notes)
AA/3DG 988	1. Financement européen C.E.C. 1958-1961. Construction centre médico-chirurgical de 200 lits à Doruma
AA/3DG 1003	3. 1953. Notes à l'architecte Van Malleghem et notes concernant son avant-projet hôpital pour indigènes.
AA/3DG 1022	7. Jadotville. 1953. Pavillon d'hospitalisation en annexe de l'hôpital des indigènes à Jadotville. 'Cahier spécial des charges et plan.
AA/3DG 1051	2. Dossiers individuels bureaux et architectes. 1951-1959.
AA/3DG 1075	7. Kalina. Hôpital pour européens. Propositions et 'Construction d'un hôpital type pour européens. Questionnaire' 1927 ; 'Cahier spécial des charges', plans et devis cuisines et buanderie et morgue. 1932.
AA/3DG 1086	10. Constructions médicales. (Hôpitaux, dispensaires, asiles pour aliénés, etc.). Kasaï - Bukavu. Complexe hospitalier. 1955. 'Cahiers spécial des charges' et plans 530102 à 530105 et 530201 à 530230

AA/3DG 1152	30. Goma. 1955. C.M.C. Cahier spécial des charges et plans.
AA/3DG 1152	31. Bukama. 1953. 2 pavillons médicaux. 'Cahier spécial des charges' et plans.
AA/3DG 1183	1. 'Hôpital-type pour Européens à ériger à Léopoldville. Ensemble des installations'. 1928. Plan.
AA/3DG 1191	3. Dossier Mr Maertens. 1913-1914. (e.a. 'Vices de la méthode suivie pour dresser les budgets' ; examen inventaires magasins/Fort de Shinkakasa et Compagnie d'Artillerie et du Génie ; 'Programme des travaux publics pour les districts' ; qualité du charbon)
AA/3DG 1191	4. Notes de Mr Maertens. 1916. Voyage Léopoldville-Stanleyville. Lettres manuscrites-inspections (e.a. postes de bois ; hôpital Lisala ; budget ; école des Sœurs Franciscaines Nouvelle Anvers' ; baleinières ; Musée Forestier Lukolela ; transports district Lukolela)
AA/3DG 1191	6. Mission à la Régie de Kilo-Moto. Avis et considérations sur le personnel. 1916. Avec rapport d'inspection
AA/3DG 1231	1. Albertville. Hôpital pour indigènes. 'Plan d'ensemble'. 1927.
AA/3DG 1231	4. Kalina. Hôpital pour européens. Plans s.d. ; Photos de l'emplacement s.d.
AA/3DG 1275	3. Budget et comptabilité: Mission Maertens. 1913-1914. (e.a. rapports examen comptabilité Direction Travaux Publics ; propositions réorganisation Travaux publics et Marine ; 'Inventaire de l'outillage et du matériel ainsi que du mobilier se trouvant au Fort de Shinkakasa' ; lettres-circulaires Travaux Publics 1910-1913)
AA/3DG 1310	1. 'Léopoldville. Zoning' s.d. ; 'Léopoldville. Hygiène & Confort' (eau potable, électricité, téléphonie et cours d'eau) s.d.
AA/3DG 1331	1. Laboratoire/Laboratoire de bactériologie. 1931-1937. Avec Ecole d'Assistants Médicaux A.M.I. (e.a. crédits ; devis ; plans ; 'Cahier spécial des charges' ; Service médical-'Note au sujet du nouveau laboratoire à construire Avenue de la Cité à Léopoldville-Est' projet)
AA/3DG 1333	1. Albertville. Hôpital pour indigènes. 'Plan des pavillons'. S.d.
AA/3DG 1337	4. 1921-1923. B.E. (e.a. tableaux dépenses liquidées et 'Travaux inscrits au Budget Extraordinaire de..' ; difficultés imputation budgétaire personnel travaux extraordinaires ; instructions règles budgétaires ; tableaux prévisions dépenses à liquider)
AA/3DG 1483	7. Léopoldville/Kalina 'Cahier spécial des charges' et plans cuisines et buanderie, morgue et écoulement des eaux. 1932.
AA/3DG 1637	3. 1919-1932. B.E. Travaux Publics. (e.a. 'Note résumant la question des crédits extraordinaires accordés pour les Travaux Publics de 1919 à 1932' ; situation générale 1921 à 1931 ; note comptabilité ; question crédits disponibles ; programme 1932 et 1934 ; inventaire travaux exécutés à l'aide des crédits accordés par B.E. 1920 à 1931 ; 'Les travaux publics de 1930 à 1940 et leur charge au budget')
AA/3DG 1637	6. Laboratoire/Laboratoire de bactériologie. 1933-1935. 'Bordereau descriptif', plans et réunion Conseil des adjudications

AA/3DG 1638	1. 1924-1932. (e.a. 'Note pour monsieur le Ministre des Colonies au sujet des prétendus gaspillages dans les dépenses pour construction des hôpitaux de la Colonie' ; demande subsides Chanoinesses Missionnaires de St Augustin pour hôpital Kisu ; proposition fermeture hôpital C.F.L Stanleyville ; 'La protection médicale de la main-d'oeuvre indigène' ; 'La maladie du sommeil' ; 'Hôpitaux pour noirs de Léopoldville et l'Institut de Recherche médicale' ; 'La fièvre jaune (Typhus amaril) au Congo' ; 'L'Organisation du Service médical au Congo')
AA/3DG 1649	2. Divers 1933 ; 1934. Note crédits disponibles ; Demande études hôpitaux autres villes pour Exposition de Bruxelles 1935 ; Article de presse 'Monstre de luxe'

Collection *Foréami* (FOR)

AA/FOR 4668	371. Plans. 1. Station-Pilote à Usumbura. 1958. Avec cahier spécial des charges 2. Station-Pilote à Pay-Kongila. 1958. Avec cahier spécial des charges. 3. Hôpital de la Rive-pavillon foyer social Home Albert Elisabeth. 1959. 4. Dispensaire hospitalisation 12 lits ; Logement pour 8 lépreux ; Lavoir buanderie ; Placement fenêtres Naco.
AA/FOR 4669	5. Divers. 1958. (e.a. dispensaire hospitalisation 22 lits ; maison pour lépreux ; maison d'infirmier congolais 3 chambres ; magasins et traitement ulcères ; maison d'habitation pour religieuses ; léproserie maternité et galerie ; dispensaire mixte consultation et dispensaire)
AA/FOR 4669	6. F.B.E.I. 1954-1957 (e.a. pavillon d'hospitalisation 20 lits ; foyer social rural et consultation des nourrissons ; dispensaire ; maternité)
AA/FOR 4669	7. Kivu-Service Médical Provincial. 1952 (e.a. pavillon dispensaire ; habitation quadruple pour lépreux ; habitation pour un aumônier catholique) et O.C.A. 1954 (habitations pour congolais-maisons jumelées)

Collection *Plan Décennal* (PD)

AA/PD 1534   12/00 Plan médical 1948-1949 1) Services publics. (e.a. répartition par province des investissements ; plan décennal médical des provinces ; comparaison rapport annuel 1946 et avec carte ; avant-projet du plan médical avec observations ; rapport commission médicale)

AA/PD 1536   A. Problèmes généraux/Généralités. 1947-1948. (e.a. aide-mémoire/ objectifs ; rapport à Monsieur le Ministre des colonies sur l'état d'avancement des travaux du Plan Décennal ; note pour Monsieur le Secrétaire Général ; plan d'organisation de l'économie indigène ; questions relatives à l'aménagement de Stanleyville/élevage//cultures indigènes et paysannat/transport Uele et Ituri) B. Procès-verbaux des réunions de la groupe d'études du Plan chez le Gouverneur général. 1947-1948. C. Procès-verbaux de réunions chez le Ministre et l'Administrateur général du département. 1948-1951. D. Procès-verbaux des réunions du Comité du Plan dans le Cabinet de monsieur le Ministre. 1947-1948

Collection *Rapports Annuels* (RACCB)

AA/RACCB 756   Rapport Médical Annuel, Boma

AA/RACCB 765   Rapport Médical Annuel, 1920

AA/RACCB 807   Rapport Médical Annuel Provincial: Equateur, 1917

AA/RACCB 882   Rapport Médical Annuel Provincial: Katanga, 1917

AA/RACCB 955   Rapport Médical Annuel Provincial: Léopoldville, 1917

AA/RACCB 963   Rapport Médical Annuel Provincial: Léopoldville, 1925

AA/RACCB 1001   Rapport Médical Annuel Provincial: Orientale, 1917

AA/RACCB 1008   Rapport Médical Annuel Provincial: Equateur, 1924

AA/RACCB 1023   Rapport Médical Annuel Provincial: Equateur, 1939

AA/RACCB 1046/A Rapport Médical Annuel Circonscription urbaine de Léopoldville

AA/RACCB 1046/B Rapport Médical Annuel Circonscription urbaine de Léopoldville

Collection *Cartothèque*

AA/Cartothèque 01   Plan Léopoldville

AA/Cartothèque 373 3461. Coquilhatville Esquisse d'aménagement

AA/Cartothèque 384 7021. Carte administrative du Congo belge, 1926

Archives Nationales de Congo, Kinshasa

Collection *Gouvernement Général* (GG)

ARNACO/GG 108	448. Couvent pour Réligieuses HCLE, 1952.
ARNACO/GG 108	449. Hôpital des Congolais à Léo-Est, 1948 : plans et correspondances.
ARNACO/GG 146	839. Ecole A.M.I.
ARNACO/GG 173	1243. Léo: Ecole A.M.I.
ARNACO/GG 173	1235. Léo: Projet de l'Ecole A.M.I.
ARNACO/GG 173	1239. Hôpital des Congolais à Léo-Est, 1956.

Documentation and Research Centre on Religion, Culturev and Society, (KADOC), Leuven

KADOC/ BE/942855/1696	139. Léopoldville Hôpital: 1931-1962

World Health Organization (WHO), Geneva

Collection Medical Care (M7)

WHO/M7/445/15	Study On The Planning, Programming, Design And Architecture Of Hospitals And Other Medical Facilities In Developing Countries
WHO/M7/108/5	Hospitals (Design, Engineering, Etc.) - General Information

Institute for Tropical Medicine (ITM), Antwerp

4.1.2.	Study programs and courses

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Aerial photographs of the diverse use of type-plans for colonial rural hospital infrastructure. Google, DigitalGlobe.