第３章

Tropical Medicine and Colonial Urban Sanitation: The Historical Formation of Colonial Kampala[1]

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ABSTRACT: This article focuses on the studies of the history of tropical medicine in the colonial Africa, and critically examines how medical knowledge was adapted in the urban planning of Kampala through reviewing the *Annual Medical and Sanitary Report* in the Uganda Protectorate: 1912-38. Furthermore, it will be illustrated the relationship of modernity to public health policy and alienation, social marginalisation, and the objectification of 'Africans' in the colonial formation of Kampala.

***Key words**: African bodies, colonialism, Kampala, sanitation, tropical medicine, Uganda, urban planning*

Spacing the Colonial Cities

In the 1931 *Annual Report*, one of the British officers in the medical and sanitary department of Uganda Protectorate described their activities in Kampala against the main problematic disease, malaria:

> A small native staff is employed at each station on routine preventive work which consists of spraying with oil, dusting with paris green, and the maintenance and extension of surface drainage. The oil used, which is found to be effective, is a mixture of seven parts of Diesel oil and one part of kerosene. During the year 7992 gallons of oil and 529lbs. of paris green were used, and some 112,490 feet of new ditches made. Where necessary increased staff is employed and paid for by special grants (Annual Medical and Sanitary Report/Uganda Protectorate (AMSR/UP) 1931: 9).

What surprises us in this quote is not only how much was spent on oil and how many ditches were dug, but also how persistent the idea of sanitary space was. This idea of space, which distinguishes European people from the potentially fatal African environment and tropical diseases, is

[1] The duration of the colonial era of Uganda can be said to run from 1901 to 1961, since the British Empire declared Uganda as its Protectorate until independence, though the title of the nation of Uganda was not Colony, but Protectorate. When I refer to the *colonial era*, I am mainly thinking of this sixty years, but on the other hand this paper just deals with at most thirty years, from 1925 to 1957, because of scarcity of historical sources related to this issue. In my view, however, this duration was the time when Kampala experienced the rapid growth as a colonial city and was politically integrated by the government. After independence, the official report seemed to dismiss controlling the urban spaces in Kampala.

discussed as the *sanitation syndrome* by Maynard Swanson (1977), or as the *cordon sanitaire* by Maryinez Lyons (1996).

Sanitation did (or still *does*) not mean just the infrastructure for people's health. It has also been the European ideological regime for controlling other social spaces. Especially in the British Empire the idea of sanitation was applied to indigenous societies as one of the key excuses for denying them their political autonomy and for keeping keep their activities under surveillance according to Victorian moral values. There are some papers which deal with the relationship of sanitation and colonialism in the British Empire, I will pick up three examples: an anthropological paper on Fiji and two historical cases in Africa.

In the Fiji case, Nicholas Thomas noted that British colonial administration enforced social regulations, such as cleaning pigs, placing beds in each house and forbidding the planting of food inside villages. These legal enforcements were made in the name of a sanitary purpose (Thomas 1990: 159). In the paper Thomas also pointed out that the sanitation of the urban poor was *strongly marked by bourgeois morality*, because "Disease was associated with vice and disorder, and the sanitizing projects of the late nineteenth century also involved description, regulation, and the creation of order" (Thomas 1990: 157).

This Victorian attitude toward diseases and the environments of other "worlds", such as Fiji and Africa, inevitably reflected the order of cities. This idea of controlling urban space can be traced back to the Chadwick sanitary reformation in England and the modern European fear of cholera epidemic in the nineteenth century, which Miichi examines in his paper (Miichi *et al.* 1990). This paper, however, does not focus on this moral discourse in the colonial sanitation, but firstly tries to speculate how urban space in colonial Africa was explored by this sanitary regime.

In his article, Swanson showed how the *sanitation syndrome* promoted urban segregation which distinguished the white residence from the African and "other race" residences in urban space of Cape Colony in the 1900's (Swanson 1977). That sanitary urban policy in Cape Colony in that era, he argued, focused on supposed racial factors as a part of risk groups of the bubonic plague and claimed to eliminate them.

He demonstrated how race relations which included the emerging black middleclass, immigrant labours and Asian merchants were reflected in public health, the security against criminals and white prejudice to other races. The main discussion on sanitation in Cape Colony was not only related to the medical scientific discourse and sanitary prevention for bubonic plague, but also with the colonial politics in Cape Town and Port Elizabeth. The *sanitation syndrome*, as Swanson has called it was a total phenomenon of this colonial administrative tendency; it was quoted as a scientific theory and became a tool for colonisers to control and protect themselves from the social threat of other races.

In his distinguished paper Philip Curtin argued town planning in colonial tropical Africa was usually dominated by the European medical knowledge. To avoid malaria in the early colonial period colonisers *put houses on stilts, elevating them ten to fifteen feet above the ground.* It was done *in the belief that malaria in particular was caused by emanations from the soil, which crept "assassin like too close to the earth"* (Curtin 1992: 236). The term *contagion*, which was used for the diseases like

smallpox and plague, was not strictly defined at that time before Pasteur discovered the germ. Here we see a kind of transitional stage between *miasma* and *germ*, but both ideas were still strongly alive for colonisers in tropical Africa in the early twentieth century. *Rather, it was an emanation from the body of a person who had the disease, or from that of a person who died of it, or from the bodies of people who were not even ill, if they were crowded together without sufficient ventilation* (Curtin 1992: 238).

Colonisers or governors, in the early colonial era, chose their political centre on higher ground and segregated from the governed native people on behalf of the colonisers' health conditions. Even after the germ theory appeared with the promotion by Dr. Ronald Ross, credited with the discovery of the mosquito as a vector for malaria and established the Liverpool School of Tropical Medicine, sanitary segregation in urban planning was theoretically backed up and more concerned with racial issues. In Nigeria a team from the Liverpool school insisted that "native children" were the source of malarial infection. Although this argument was not based on the "facts", and was indeed less "scientific", there was also the "scientific fact", reported by other colonial medical researchers, that *mosquitoes preferred African to European blood* and *having African servants might well attract mosquitoes to come "swarming after them from the native quarter"* (Quoted from Curtin 1992: 246).

Sanitary segregation did not only try to separate Europeans from other races, but also topographically categorised them in the urban planning of African towns. The colonial administrators attempted to confine Asian bazaars to some specific areas, and usually put European residential areas at the centre. African native and other racial groups were required to make their residences in the outskirts of towns. Curtin introduced the sanitary discussion of W. J. Simpson, who worked at the London School of Hygiene and Tropical Medicine and toured around East Africa in 1913-1915.

> something more is required where the races are diverse and their habits and customs differ from one another.... It has to be recognised that the standards and mode of life of the Asiatic do not ordinarily consort with the European, whilst the customs of Europeans are at times not acceptable to the Asiatics, and that those of the African unfamiliar with and not adapted to the new conditions of town life will not blend with either. Also that the diseases to which these different races are respectively liable to occur when their dwellings are near each other (Simpson 1914 "The Report on Sanitary Matters in the East African Protectorate, Uganda and Zanzibar", quoted from Curtin 1992: 252).

Simpson recommended ethnic zoning with intermediate green belts, which had already done in Kampala, Uganda Protectorate between 1907 and 1915. In Uganda these principles had been imposed on most district towns (McMaster 1968).

I have mainly picked up the discussions of historians who focused on medical and sanitary knowledge on urban planning in British Colonies, but it is also interesting to see these issues from different perspectives from other scholars, Alfred Crosby and Yi Fu Tuan. One is famous for ecological analysis in the history of European World Expansion and the other is a phenomenal geographer.

Crosby has taken a very different position from the historians who insist history is determined by human and societal factors. Instead, he argued for the importance of certain diseases and European ecological habits. He explained that the epidemic diseases such as smallpox which European brought to other continents swept out most populations of natives, and their mode of life with their livestock, cows and pigs, consolidated the land they colonised (Crosby 1986). He noted how the same landscape of European farm, since 1492, had expanded as "Neo-Europe" in the specific temperate zone, North America, Australia and New Zealand. Although he pointed out that the attempted conquest of tropical Africa was never successful because *African ecosystem was simply too lush, too fecund, too untamed and untameable for the invaders until they added more science and technology to their armaments* (Crosby 1986: 137), it is not difficult for us to find the large farms which resemble the European landscape such as in the Highlands in Kenya and Cape Colony in South Africa. Unfortunately Crosby dealt with only the ecological and biological aspects. Therefore he neglected a lot of cultural and social factors which must have influenced the process of colonizing the landscape of "Neo-Europe".

It is important to ask whether this European ecological expansion is important in colonial urban context, because colonisers in Africa needed their own ecological environment, or *science and technology*, which kept them alive in the place surrounded by the fatal tropical diseases. On the other hand, their way of adapting to nature somehow contained their own moral discourses, as Thomas and Curtin suggest, and formed a colonial rule and regime under the name of Public Health and sanitation.

Quinine had been a great tool for the early colonisers who had explored tropical Africa since the eighteenth century, but the development of sanitary and medical knowledge, which started with the beginning of urbanisation and the industrial revolution in Britain, enabled European colonisers to migrate and materially establish their city in the tropics (Curtin 1989).

European expansion in Africa cannot be fully discussed without *science and technology* as Crosby admits. We can say that this science and technology, especially sanitary knowledge which must have featured urban infrastructure in tropical Africa, has been one of the main factors in forming colonial cities from nineteenth to twenty century. However, the question is what was represented in forming the colonial cities in tropical Africa and what was represented through this colonial *science and technology*?

Here I try to discuss more about the social dimension of urban planning than historical facts and more through the perspective of moral discourse on science and technology than through the science and technology themselves. In the Tropical Africa of the nineteenth century, the most difficult obstacles for Europeans to establish empires were tropical diseases and its hot climate. Curtin tells us the story that quinine and sanitary invention could have kept colonisers alive in that environment (Curtin 1989). On the other hand Arnold denies this materialistic vision of colonialism. Rather, Arnold argues, medicine and sanitation were parts of the ideological apparatus of empire. What science, technology and medicine enabled the colonisers to do was not to supply their living place in tropical conditions. It is, rather, that these things could confirm colonisers in their advancement on tropical Africa, the so-called dark continent, and *gave a prominent place among the benefits that European civilization could bestow upon the benighted rest of the world* (Arnold 1996: 105). Therefore I would

like to say that orderly urban planning and sanitary infrastructure was not only the result of prevention of tropical disease in Africa. Rather I would say that they originated from the representation of power of European colonisers and their cultural inclinations. By quoting papers on British colonial rule and the sanitation syndrome, what I want to focus on is this specific feature of European (or British) sanitary knowledge and its moral discourse in tropical Africa, especially in Kampala, Uganda.

In his book *Topophilia* from the geographical perspective, Tuan argued the landscape was shaped more by cultural factors than natural limitations. He pointed out that the cosmology and ethnocentrism of each culture work to create their own cultural space. He described Brasilia as a modern ideal city, which *is laden with symbols expressive of a common and deep-seated desire to order the earth and established a link between terrestrial space and the overarching sky* (Tuan 1974: 171). The modern city, though it is seen as unruly spawned in general, represents the power and desire to rule the earth and cosmology.

Yet it is quite difficult to discuss how the representation of colonial power and moral discourse in British Empire forms the urban structure of tropical colonial cities. Some historical factors differentiated each colonial towns and cities in British Empire, even in the same East African region. For example, Nairobi, the capital city of Kenya, was established as the station for the colonial army and as a relay point for the East African Railway between Mombasa and Kampala. The town was colonised on the plain where no political agency existed, unlike Kampala. Therefore Nairobi has kept uncontrolled nature for urban planning and the expansion of slums (Matsuda 1994). On the other hand, Mombasa, the port town along the Indian Sea, has been the centre for the Islamic commercial activities since medieval times. Without the Islamic influence the urban structure of Mombasa cannot be discussed fully though British colonial power had an influence on its urban planning. Each urban history of these cities is verified and cannot easily be reduced to just one element of colonialism. However, the representation of British power on urban sanitary planning can be still recognised as colonialism's culture by looking at historical records and reviewing the theoretical frame of the history of medicine.

The term "Tropicality" which David Arnold used in his book will clarify the Orientalist nature of Tropical Medicine, and the colonial attitude toward the so-called "Tropical Zone". Arnold pointed out how the Tropical Zone was invented through the European discovery of the Non-European Other. "Tropicality" was, therefore, created and adhered to the image of the Other, the environment which killed the European as outsiders and scientific tools for managing them. Tropicality was the idea to maintain their colonial imagination for controlling the Others (Arnold 1996). Colonial towns in Uganda were set up for settlers against Tropical Diseases and the Tropical environment. Local historical ruins hardly remain in these towns because they had not kept their influence as much as Islamic ones. As a result, it can be easy to see a clear vision of colonial representation in the urban planning of Kampala, but we have to review its colonial formation through the historical study on Kampala. By doing so, I argue, we can have a more specific view on Tropicality and Colonialism of Kampala.

Kampala: Its Colonial Formation

Let us see the case and the brief history of Kampala, its colonial formation and urban policy. Kampala was originally the capital town of Buganda kingdom. Mengo, the political centre for the Kabaka, King of Buganda, was located on the top of hills besides the Lake Victoria. Its site was changed often before the British colonial entry.

In 1896, when Uganda was declared one of British Protectorates by the colonial government, Kampala was imagined by European colonisers like ancient Rome, with many large hills. Especially for Lord Lugard, who played a major role in the establishment of British colonial indirect rule, this site was considered as the ideal place for the political centre to cover the British rule in East Africa. There were some reasons for him to decide upon Mengo district as the centre in East Africa. In East Africa the Buganda kingdom was, except for Islam, only civilisation, which European people recognised. So certainly there were political aims and missions of Christianity to rule this land. Secondly, Lake Victoria was considered to be the source of the Nile. The British government, which ruled Egypt at that time, wanted to secure their water source and protect it from the threat of other European countries (Miyamoto and Matsuda 1997).

Thirdly, it was important that British colonisers could settle the highland of Uganda. Around Kampala land altitude is approximately 1,200 to 1,400 metres. For most European colonisers the climate was comparatively milder than other African tropical areas. Moreover, settling on this high altitude for European colonisers gives a certain comfort because this altitude would protect them from tropical diseases. As I indicated above, most tropical diseases, such as malaria and cholera, were believed to be provided by miasma which came from low land's swamp.

Lugard also strategically chose Kampala as a defensive fort[2] (McMaster 1968, Southall and Gutkind 1957). He needed to gather an army and protect this land for the IBEAC (Imperial British East African Company) from the other African kingdom, Bunyoro, other European states, and perhaps even from Bugandan people. Though the colonial bureaucracy was set up in the town of Entebbe, which is located in the peninsula beside the Lake Victoria, Kampala still played an important role in commerce, politics and the army of Uganda. In his paper McMaster points out that there were two functional elements, *boma* and *bazaar*, to work out as a colonial town in Uganda. *Boma* is a Swahili word, and means; *"Any kind of raised structure for defensive or protective purpose (1) earthwork, outer wall. Rampart, mound, palisade, stockade, fence; and hence (2) fort, redoubt, castle"* (McMaster 1968: 340). In other words, Kampala was owed to two functions of fortress and commerce. Though the colonial bureaucracy was set up in the town of Entebbe, which is located in the peninsula beside the Lake Victoria, Kampala was still functioning important role of commerce, politics and army of Uganda.

The "natural" environment in Africa was, for Europeans, still surprising. Tropical diseases especially were thought to come from the African wilderness and the tropical climate. Most of the

[2] Colonel Sir Henry Colvile wrote "the capital of Uganda is built on four hills, Mengo, Rubaga, Namirembe and Kampala, the first three being occupied by the King and the Catholic and Protestant missions respectively, while the last was selected by the officers of the (Imperial British East Africa) Company as the site for their fort" (Quoted from Southall and Gutkind 1957: 2).

statistics indicate the number of people who died for malaria, sleeping sickness, plague, and black water fever. These were defined as regional diseases and were supposed to be related to the natural environment (Curtin 1989). As Vaughan argues in her book, in the early colonial period European medical doctors in Africa tried to focus on the connection between the African tropical environment and 'African' bodies (Vaughan 1991).

While at the level of colonial policy, the environment of Uganda was considered just as various pools of disease. In the *Annual Report* there were some attempts to make scientific explanations of the environment in Uganda, such as entomology, the ecology of fleas, flies, and mosquitoes, and geography. In some cases, investigations of mosquito and flies were prepared with a team from the British Museum (Natural History). Sanitary officers tried to examine effective methods for preventing diseases by assessing the natural environment.

> The results of this and of previous years have been included in a monograph on mosquitoes which is being prepared by the British Museum (Natural History). Work has included the study of life-histories of the common species in order to ascertain the approximate optimum intervals between the application of oil and other larvicides. ...Experiments have been conducted to determine the effects of various chemicals in solution on the hatching of mosquito eggs, and an attempt is being made to ascertain under artificial conditions whether waters with a high organic content are suitable for the larvae of malaria-carriers. Larvae of *A. gambiae* did not survive in water from pools at Namanve with a high organic content unless dried yeast was placed on the surface. As, however, the pH did not remain constant the experiment requires modifications before reliable conclusion can be drawn. (AMSR/UP 1932: 88)

The natural environment of Uganda was, for the colonisers, like an experimental field for epidemiology and entomology related to diseases, and a field susceptible to change. It was also the application of particular forms of science and technology to the environment and it was the application of "coloniality" in terms of 'control' of the environment, as well as in terms of the structure of the city. Kampala and tropical diseases would have to be made to accommodate.

The emergence of Tropical Medicine, as a subsection of medical sciences, confined the space of tropical regions and countries. In Kampala, Mulago hospital was established as the centre for Tropical Diseases. Colonial officers did not only examine the nature in Africa as the source of disease, but also invented the tropical space and categorised a clean space and a dangerous space.[3]

To overcome these bad conditions of tropical Africa, colonisers attempted to create the same space as they used to live in. The reason why Kampala was chosen as a political centre in East Africa by British colonisers was not only that it was the capital town of Buganda, the dominant *tribe* of the region, but also that it was located on the highland, about 1,400 metres above sea. The building of

[3] In the case of Sleeping Sickness in the Belgian Congo, Lyons depicted the spacing of the regions of disease by mapping and labelling regions in four stages: Free Zones, Affected Zones, Seriously Affected Zones (Lyons 1992).

Kampala and other towns in Uganda was, thus, to establish the space of order, which was embodied by the Western notion of cleanliness. Officers in the Medical and Sanitary Department in Uganda Protectorate struggled to establish the infrastructure of Kampala. They drew a blueprint of sewage system and conducted the urban planning in the early colonial period. Controlling the bazaar, which was mainly managed by *Asians*, and afforestation (planting trees) for anti-malaria campaign were described in the report.

> The Conservator of Forest reports as follows on the experimental anti-malarial plantation at the Lugogo swamp near Kampala:-
> "The plantation is established but somewhat patchy. The general condition is not very satisfactory and it is a pity that the experiment was started so hastily. Not enough drainage was carried out ..." (AMSR/UP 1931: 25)

They planted trees and covered up dumps surrounding Kampala. On the other hand, they prohibited planting banana near town centre because it would invite mosquitoes. They tried to regulate and normalise the urban space by inspection and legal establishment, which was supported by the African Housing Department.

> Housing conditions in most of the township bazaars give rise periodically to unfavourable comment but again trade depression does not always allow of insistence on the minimum requirements prescribed by the Township Rules.
> African Housing is still, of course, unsatisfactory, and so long as dark and dirty mud and thatched hut are in use it is improbable that their occupants will escape plague, tick fever and typhus. The more advanced Africans avail themselves of permanent or semi-permanent iron-roofed buildings when funds permit, but generally even the cost of corrugated iron walls with grass roof is far beyond the means of the bulk of the population. (AMSR/UP 1932 p41)

In these statements there is the evident desire to control spaces in towns to protect people from illness caused by 'unhygienic and *unsanitary* conditions'. The notion of hygiene is also related to race and culture. In the statistics the colonial government tried to make a clear distinction between whites, Asians and natives. This distinction produced the hygienic place and the unhygienic place, the *township* and the *slum areas*. This would inevitably lead to slum clearance.

> A committee has been sitting for the past few months to draw up new Building Regulations which will be enforced in whole or in part all over the Protectorate. Unfortunately the removal of existing slum conditions in many of the bazaars and trading centres can only be achieved gradually by application of the nuisance clauses of the Public Health Ordinance. There is, however, an undoubted improvement in the cleanliness of townships which must be attributed to the greater supervision which can now be exercised by the Department owing to the increase

in the staff of Sanitary Inspectors. (AMSR/UP 1935: 41)

From then on the *Public Health Ordinance* would be the guideline for urban planning of Uganda. In the *Report of the African Housing Department* (1954-58), the *Ordinance* is attached and became the standard of legal restrictions of urban planning in the 50's. Not only Kampala, but also Jinja, Entebbe and Mityana, all towns in Uganda, were under the control of this *spacing* institution of the colonial regime.

Colonial Space/Colonial Bodies

How is the notion of these urban spaces in Kampala related to the notion of bodies of "Africans"? According to Hoppe, Sleeping Sickness 'provided an opportunity for the colonial state to articulate and enact visions of African environments' in colonial Uganda (Hoppe 1997: 87). But in the *Annual Report* there is not only Sleeping Sickness but also some other diseases that play a significant role in colonial Uganda, in the early period of the twentieth century: malaria, plague, small pox, black water fever. The preventive method for these diseases was segregation and the establishment of a clean environment. Colonisers tried to build the town as a fortress against the invasion of diseases.

I have discussed the city of Kampala as a coherent space. Actually, function of the city was divided into some parts by some of the hills of Kampala. Buganda Municipality was located on the hill-top of Mulago, and independently tried to control the urban problems (Southall and Gutkind 1957). On the other hand, it is true that the city was expressed as coherent space against disease from outside in the recorded paper of Medical and Sanitary section of the Protectorate. It was this notion of space that the tropical medicine gave us. In order to imagine the influence of epidemics, malaria, plague and sleeping sickness, European people was required to grasp the extent to which these diseases spread in their colony. In the Belgian Congo's case, Lyons explained how medical geography was used to grasp the regions that contained sleeping sickness and categorised those regions as "infected" or "non-infected". "Cordon Sanitaire", to define infected regions and stop spreading the disease, was established with the advice of Liverpool school in Belgian Congo. Liverpool scientists *suggested that all Africans with swollen glands should be isolated and examined and they advised victims' families should not be allowed to visit* (Lyons 1992: 98). The isolated camp for it was set up and this space was totally controlled by European scientists to prevent spreading the disease.

Here, the colonial spaces were embedded with the threat of tropical disease. I am always surprised by the zoning and spacing of European colonisers, which I have already indicated in the case of spreading oils, planting trees, regulating urban structure in Kampala. This colonial desire of controlling space in tropical Africa was embedding the European body and town as a fortress. The fortress of Kampala as a sanitary town will be viewed as the vision of *cordon sanitaire*, which Lyons and Hoppe showed as segregation zoning against sleeping sickness (Lyons 1992, Hoppe 1997). In other words, town was imagined as a coherent European body which was bordered and ordered against African nature and tropical disease, disorder (See Figure 1).

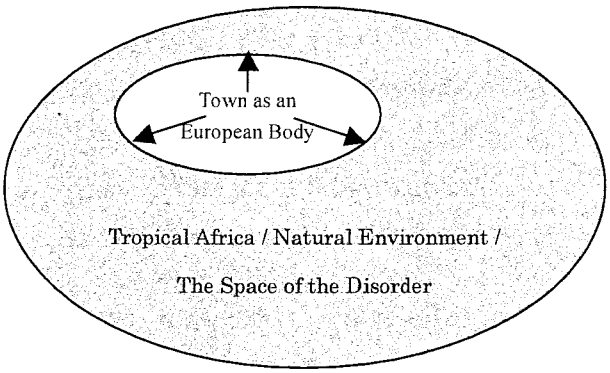

Figure 1. Urban Space/Body as Fortress in Early Colonial Era in Kampala

In this case, the space of town is considered as a human body and the space of 'order'. On the other hand, Tropical Africa and the "natural" environment is the space of disorder. Perhaps this notion of space and bodies can be compared to the notion of the body discussed by Mary Douglas in *Natural Symbols*, since the colonisers simply followed their own system of purity and order (Douglas 1966, 1970).

The notion of the "body" as a coherent, clean and orderly space influenced representation. In early colonial period, the urban space which was represented by British officer in *Annual Medical and Sanitary Report* was imagined mainly for the European citizens. African people were, in this representation, part of the African environment, and could sometimes transmit disease like mosquitoes (Curtin 1992). Moreover, the sense of categorising and spacing did not permit racial mixture and this continued until the late 1950's (Southall and Gutkind 1957).

From Sanitation to Hospital

The urban planning of Kampala was proceeded by colonial government for the healthiness of European colonisers. One of the main roles played for sanitation and urban planning in Kampala was Professor Simpson, who strongly claimed racial segregation for urban sanitary reason. In 1915-20, when Simpson was assigned as the first urban planner of Kampala, the anopheles factor of malaria was already clarified by Manson and Ross in schools of Tropical Medicine in London and Liverpool (Worboys 1994). However, W. J. Simpson, as indicated above, regarded Nakasero, one of the hills of Kampala, as the "European Hill" so it was wrapped with golf courses and the European clubs.

> Health requirements were stressed by Professor Simpson. In this he reflects the written views of the times. These should properly be seen against the contemporary background of poorer communications, fewer refrigerators and amenities, a limited understanding of tropical medicine and hygiene (McMaster 1968: 341).

As I have already mentioned the early part of this paper, in 1930s a common method for prevention of malaria was to get rid of anopheles factor, spreading diesel oils was recommended by Dr. Ross in London. On the other hand, I need to point out colonial administrator and urban planner, such as W. J.

Simpson, did not obey the direction of Ross. Though the process of infecting malaria, sleeping sickness, and plague was totally revealed, the concept of miasma still influenced these colonial projects. From centre to periphery the paradigm of tropical medicine passed slowly and continuously. Therefore, segregation and zoning would survive in urban planning discourse even after the vaccination programme would become common.

Just before the Second World War, the notion and the role of public health and sanitation in colonial nations were gradually changing. Public health might originally be the notion of the policy of medical units, such as doctors, hospitals and dispensaries. On the other hand, sanitation concerned all policies related to the prevention of disease. In the earlier colonial period this sanitary policy especially focused on the environment of residential areas. Later the sanitary section in the Medical Department became smaller and there were fewer references to the question of sanitation.[4] The role of hospitals and dispensaries grew more influential and the invention of vaccination and anti-virus medication replaced the sanitary improvement of environment.

With the development of vaccination, and perhaps less incidence of plague and sleeping sickness, individual bodies became focused on as objects of treatment. On the other hand governmental policies were concerned with "African" population as army. With the development of vaccination, and perhaps less influence of plague and sleeping sickness, individual bodies became focused on as an object of treatment. On the other hand governmental policies were concerned with "African" population as army for world wars.

In 1947 one report was submitted to the colonial office in London. *Control of Venereal Disease*, which dealt mainly with syphilis. The British government had learnt a lesson from the last war, that moving large amounts of people in war caused syphilis to be spread among their army and it affected members and their wives in their home countries after they returned from abroad. Venereal disease threatened not only individual members, but also the whole national population, because it was a cause of sterility and the cause of less reproduction. The report recommended that British colonial medical sections deal with this danger. At the same time, the proposed programme for building hospital in Kampala was also submitted. The aims of the Mulago new hospital were to educate medical students, midwifery and nursery of African people, and to establish modern medical facilities in Uganda.

This change in the notion of public health is important because this is the turning in point at which the population of the colonies was recognised as being reproductive. In the early colonial era, the population counted as victims of diseases was just a set of fragmented numbers. There was no notion of the whole nation. Originally the main body of national *population* which had to be counted was the European and the Asians who worked for the official and economic purposes in the British Empire.[5] The population of natives was the objective number for taxation. Now these numbers

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[4] In Uganda Protectorate the reorganisation of medical section occurred in 1936 and three years later the *Annual Report* of the department has changed the title from *Annual Medical and Sanitary Report* to *Annual Report of the Medical Department*.

[5] In the *Annual Report* for 1921 there is a simple table counting the number of deaths for *Europeans* and *Official Asiatics* in the case of Plague.

became integrated with the same aim as the national population for the military and reproduction. After the war the population as social bodies (Horn 1994) was implicated in reproduction, which leads us to a notion of *sexuality* (Foucault 1976).

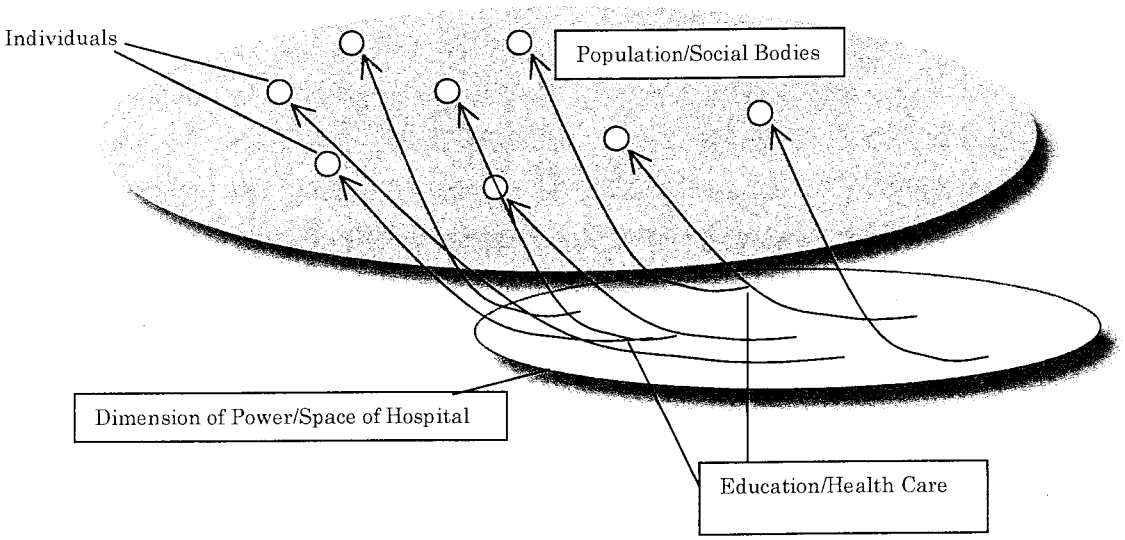

Figure 2. Social bodies: Individualisation/Hospitalisation

Therefore the notion of sanitation and hygiene changed from the one bodily concept, whose outer wall guards against the external environment, to another bodily concept in which immunisation systems treat each disease as autonomous. Urban space is now not recognised as a coherent collective *social body*, but is recognised as *social bodies* containing the continuous extension and internal struggles with internal pathogens, as dispersed in each cellular individual (See Figure 2). To control the social bodies, which disperse as individual in urban space, colonial regime needed to invent the new power apparatus. Immunisation and health education were organised by hospitals as health projects. In other words, population would be under control of another social dimension, which Foucault called *the birth of clinic* and spacing the bodies (Foucault 1963).

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植民地主義下における熱帯医学と都市衛生
ウガンダ、カンパラの都市形成史を事例にして

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概　要　この論文では植民地主義下アフリカにおける熱帯医学史を焦点に置きながら、ウガンダ、カンパラの都市の歴史的形成がどのように植民地的な医療・公衆衛生の知識においてなされたかを検証していくものである。そのために 1912 年から 1938 年に刊行されたウガンダ保護領衛生局の *Annual Medical and Sanitary Report* を取りあげ、当時のカンパラにおける公衆衛生政策の分析を試みる。

衛生局のレポートではアフリカの生態系が病源とされ、沼地の埋め立てや植林といった自然環境を管理する政策が「衛生」Sanitation の中心とされていた。それによって、カンパラの居住区において、アフリカの自然を排した清潔な空間が形成されていくのである。カンパラの都市計画において、アフリカは常にヨーロッパの秩序に対する無秩序、そして病の根源とされたのであり、植民地時代初期に行われた衛生工事は、アフリカ性と負の熱帯性とを排除させていくものであった。

だが、その後に公衆衛生政策はワクチンの普及や教育の徹底化など転換を迎え、病院での治療・保健教育が主体のものとなっていき、そうした清潔な空間の概念は徐々に変化していくこととなる。

キーワード：アフリカにおける身体性・ウガンダ・カンパラ・公衆衛生・植民地主義・都市計画・熱帯医学