The Indigenous Urban Tissue of Addis Ababa – A City Model for the Future Growth of African Metropolis

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Abstract: The current rapid urbanization in Africa is an unprecedented phenomenon in the history of mankind, as urban growth is no longer linked to economic growth. With this "urbanization in poverty" a new way of urban life evolves and for this an appropriate city model is needed. The city of Addis Ababa being the only large African city without a colonial legacy is built on an indigenous settlement structure. This urban tissue consists of two elements: street-liners, the linear development of mid-rise, mainly commercial buildings along the ever-expanding street network, and in-fills low-rise, mainly residential buildings in-between the wide-weave grid of the street network. Together, both elements form an urban tissue with outstanding, advantageous properties. They create an urbanity characterized by a 'mixity' – as it is called in Addis Ababa – of social strata, functions, and economies. The close proximity of everything everywhere in the city makes crucial issues of survival for the large majority of poor inhabitants redundant, e.g. transport costs, ghettoization, etc. This paper argues that in contrast to the colonial or post-colonial city model based on the notion of centrality, segregation, and functional division, it is the non-centralized, non-segregated, non-functionalist urban tissue of Addis Ababa that could serve as an appropriate city model for the future of the rapidly growing African metropolis.

Keywords: African urbanity; large-scale urbanization; Addis Ababa; indigenous settlement; city model; affordable housing.

COLONIAL CITY MODELS IN AFRICA

Africa changes from rural to urban. This change is currently faster than in any other region of the world. However, the urbanization process in Africa happens under economic stagnation or even degradation – at least for the large majority of inhabitants: the urban poor. One of the biggest challenges is therefore to find solutions to accommodate the ever-growing number of urbanites who live and work – or rather survive – in these rapidly growing cities under circumstances beyond tolerable human standards. For this unprecedented phenomenon in the history of urban settlements an appropriate city model has to found from within the context of African urbanity. As Africa had only very limited urban traditions before colonization, most large urban centres today have to bear with the colonial legacy of segregation, in both social and functional terms. After independence the Western city model often remained uncontested or was even fostered by subsequent Western-promoted modernist city planning.

In contrast to this, Addis Ababa, the capital city of Ethiopia as the only non-colonized state in Africa, developed along the indigenous patterns of settlement until today. This paper argues that Addis Ababa could therefore be an appropriate city model for future growth of the African metropolis as it avoids the problems of segregation and centralization. It could be an African answer to particularly African challenges in urbanization.

HISTORIC BACKGROUND OF ADDIS ABABA

Addis Ababa is a very young city. It was founded in 1886 as the capital of the geographically and ethnically diverse, and centuries old Ethiopian empire. Traditionally, the imperial court moved through the different regions and reigned from a temporary camp. However, the hot springs made a permanent stay in Addis Ababa favourable and the newly introduced plantation of fast-growing Eucalyptus trees for construction and fuel made it feasible. At the same time the formalization of diplomatic relations with Western powers and their new embassy

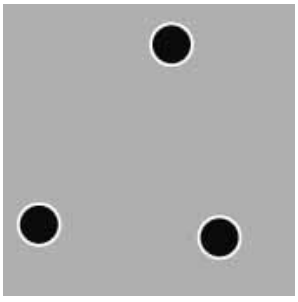
compounds and buildings enhanced the permanency of the settlement of the former camp. Addis Ababa, literally the 'new flower', became rooted.

The settlement pattern of Addis Ababa reflected the social pattern of the feudal society of Ethiopia. The regional rulers (*ras*) would reside in the midst of their peoples and armies settlements (*sefers*) around the imperial palace (*ghebbi*). The *sefers* were scattered over a wide, rugged territory. As the permanence of this settlement was uncertain for the first decades, infrastructure was not developed and connections between the camps were not more than footpaths. In contrast to a consciously planned city, Addis was literally a city without streets. Only with the final decision to halt the movement of the imperial court, connecting bridges and streets were laid-out in an organic manner along the undulating terrain. With the further growth of the city the dots of the first camps were connected and a net of streets was formed. Here, new and modern urban functions, like shops, hotels, cinemas, administration, workshops, etc. emerged. In between these linear connections with modern features – *street-liners* – some large areas with mainly traditional building structures developed – *in-fills*. This pattern of settlement remains characteristic for the urban tissue of Addis Ababa, a city of currently 5 million inhabitants, until today.

The Addis Ababa Structure Plan of 2002 and the related set of building laws enhance the characteristics of this urban tissue. A wide weave organic grid, with a mesh of approximately 1x1km, is laid over the existing and expanding city areas. Buildings along these new, large roads need to conform to a minimum height of G+5. As a result a new generation of *street-liners* with modern functions, like shopping-centres, cinema-plexes, hotel-chains, offices etc. are developed in linear strips. As Addis Ababa resisted the western notion of centrality, the indigenous structure of the urban tissue of Addis Ababa has basically remained the same.

ELEMENTS

Looking at the *street-liners* it can be observed that the linear space along the large streets in Addis Ababa has a purely functional use as opposed to the Western notion of public space, in which streets have particular qualities to invite people to enjoy leisure time outdoors. An example from Addis Ababa: instead of one central building market, many small and specialized building material suppliers are located along one street. The open space is used for display and workshops. Other more general economies, like taxis, beggars, etc. are found, too. All other functions, e.g. for leisure, are indoors. In this city structure there are no public squares; rather where the street space is widened large public events can take place.



SCHEME 1: first dots

SCHEME 2: colonial model

SCHEME 3: urban tissue

Looking at the *in-fills* one finds the opposite: Streets are extensions of private space. Here, 'housing is a verb'. The most common typology is a low-rise detached house within a compound, which makes the neighbours invisible. The houses of the rich and the poor are found in close proximity – ambassadors can live next to their guards and maids. A high degree of mixity can be achieved, which results in a positive social responsibility and security. Despite the appraisal of the urban tissue of Addis Ababa it should not be romanticized. 80% of the city is defined as slums according to UN criteria. The average of 3m² of space per capita results in extreme overcrowding, access to drinking water is limited, the average life expectancy is 47 years and 16% of the inhabitants have HIV/AIDS. The average income per household, often up to 10 persons, is about 30 USD. More than two thirds of which has to be invested for food – therefore housing, transport, medical treatment, and education can hardly be afforded.

QUALITIES

Despite the precarious living conditions of its inhabitants the urban tissue of Addis seems to have obvious advantages:

Mixity of Commercial and Residential Areas

The close proximity of *street-liners* and *in-fills* makes workplaces easily accessible by foot from housing areas. As the *street-liners* offer jobs for various income groups, they can also be accommodated next to each other in the *in-fills*, thus creating low-level job opportunities in middle or high-income households. Traffic is reduced and transport costs are saved, thus making more money available for food, housing and education, etc. This city model has a direct influence on the affluence of its inhabitants.

Mixity of High- and Low-Income Groups

Instead of pushing the people living in these precarious situations through slum-clearances from the city centre to the periphery the urban tissue of Addis Ababa shows the advantages of mixing different income groups. Security does not only mean the absence of crime, but also a security within the social net of a community. Small-scale loan systems are established within these.

Mixity of Building Typologies

Two different building typologies co-exist: mid- to high-rise objects along the *streets-liners* and low-rise fabric in the *in-fills*. Both are arranged such that homogenous spaces appear. On the one hand space is created by the mid- to high-rise objects aligned along the streets. On the other hand there are the typologically heterogeneous, but equally low-rise *in-fills* for different income groups.

Mixity of Financing

All three mixities mentioned above (the functional, social and built mixity), bring different financial capacities together. This creates opportunities for cross financing between high- and low- income residents and large and small businesses. For example, the gains from selling plots along the streets can be used for upgrading of the *in-fills*. Infrastructure built for high-income houses (sewerage, water, electricity, telephone) can be shared (or tapped) by low-income neighbours.

SCHEME 4: street-liners

SCHEME 5: in-fills

SCHEME 6: mixity

SCHEME 7: urban growth

Mixity of Space

Due to the undulating topography of Addis Ababa the *in-fills* can only be seen from certain elevated viewpoints. While moving through the highly enclosed streetscapes of the *street-liners*, strong identities are created through iconic buildings. Looking behind this curtain of modernity, one can experience totally different spatial identities in the *in-fills*. Streets are narrow, often dead-ends, and appear unordered at first sight. The true identity is only revealed when stepping through a gate and entering a private secluded compound in which private outdoor spaces are functional for keeping animals, growing vegetables and thus saving or creating income.

To sum it up, this paper argues that the elements and qualities of the indigenous urban tissue of Addis Ababa seem to be a successful city model, advantageous for rich and poor inhabitants alike. It should therefore be discussed if, and in which way, this model can be projected onto other African metropoli, which have not initially developed along indigenous patterns like Addis Ababa.

POTENTIALS

Urban growth usually appears in two different ways: vertically or horizontally. Either, replacing existing low-rise typologies by high-rises and thus increasing the density of an existing territory, or, increasing the area of the territory by pushing the city limits further away from the centre. Both are expensive and cannot be considered appropriate for the African context with rapid urbanization in poverty. The urban tissue described on the case of Addis Ababa seems to indicate a solution. African metropoli should neither be centric or polycentric, but rather non-centric. Functions usually concentrated in a centre can be distributed along the linear developments of the network of large streets. When the city grows, the street network is extended, too. The *in-fills* can then be areas where the poor can be accommodated, too. This results in a city model that can be expanded endlessly without changing its characteristics. It would need to be discussed whether there are limiting factors. It should further be researched which tools would be necessary to steer the rapid growth of African cities along the lines of the city model described above.

TOOLS

This urban tissue requires first of all a definition of a street network. Streets need to be adjusted to topography, which makes infrastructure investments more effective. The width of the organic mesh defines the relation of *street-liners* and *in-fills*. A width of 1x1km is found to be successful in Addis Ababa. Through planning the streets in this way, a spatial frame is defined. Expanding the street space at certain places creates variety and options for multifunctional use. The *in-fills* can be programmed in different ways. Yet, ghettoization for the rich or poor should be avoided. Special attention needs to put on keeping certain *in-fills* for the low- or no-income groups. As informal settlements appear in any case, the question is rather how to integrate them into formal planning of extension areas. (The authors will soon publish a study on how to balance the two aspects of affordability and density for urban housing in African metropoli).

CONCLUSION

The current rapid urbanization and poverty in Africa requires an appropriate, indigenous city model. The case of Addis Ababa, the only large African city based on an indigenous pattern of settlement characterized by *street-liners* and *in-fills*, demonstrates advantages, e.g. mixity of commercial and residential areas, mixity of high- and low-income groups, mixity of building typologies, and mixity of financing. These patterns and qualities together form a city model that can overcome the centric city models introduced by colonialism and modernism, and establish a non-hierarchical, non-segregated, non-functionalist city that can grow endlessly without changing its appropriateness to cater to the majority of its inhabitants – the urban poor.