

Rethinking Urban Planning: **Agriculture in African Cities**

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*“Something for the belly!
 Wa Gathoni, just for the belly!
 It’s just to bribe the belly into temporary silence!
 Today all the good schools belong
 To the children of the rich
 All the big jobs are reserved
 For the children of the rich
 Big shops,
 Big farms,
 Coffee plantations,
 Tea plantations,
 Wheat fields and ranches,
 All belong to the rich.
 All the good tarmac roads lead to the homes of the rich.
 Good hospitals belong to them
 What did this factory bring to our village?
 Twenty-five cents a fortnight.
 And the profits, to Europe!
 What else?
 An open drainage that pollutes the air in the whole country!
 An open drainage that brings diseases unknown before!
 We end up with the foul smell and the diseases
 While the foreigners and the local bosses of the company
 Live in palaces on green hills, with wide tree-lined avenues,
 Where they’ll never get a whiff of the smell
 Or contract any of the diseases!
 Their mission in life is exploitation!
 Look at yourself.
 Look at the women farm labourers,
 Or those that pick tea-leaves in the plantations:
 How much do they get?
 Five or seven shillings a day.
 What is the price of a kilo of sugar?
 Five shillings!
 So with their five shillings:
 Are they to buy sugar,
 Or vegetables,
 Or what?
 Or have these women got no mouths and bellies?
 Take again the five shillings:
 Are they for school fees,
 Or what?
 Or don’t those women have children
 Who would like to go to school?
 Well, independence did indeed come!”*

- “I Will Marry When I Want”, Ngugi wa Thiong’o, 37 – 40

I. Introduction

Purpose

As food and commodity prices continue to rise across Africa, the world has watched as citizens resist angrily against corrupt regimes that have enacted harmful policies in the name of maintaining power and order. The artificiality of the African state and the lack of strong institutions has engendered an entrenched elite to amass wealth, control, and land. This contrasts with the vast majority of African states' citizens, whose needs remain delegitimized by the ruling minority. This marginalization is highly evident in the form and function of urban centers across Africa, whose populations are growing rapidly as citizens migrate for hope of jobs and improved quality of life.

Ineffective governance has resulted in a cycle of patronage and complacent bureaucracy that fails to meet even the most basic needs of urban residents. Yet life continues in African urban areas, and people make do with the resources, materials, and networks available to them, no matter how informal or small-scale. Urban agriculture (UA) is a prime example of how individuals are able to subsist and thrive despite the lack of formal, functioning institutions. Where there is natural space available, farming and livestock grazing occurs, so that households may eat. Urban land, especially green areas, tells a lot about the realities and inequities of African cities. It tells a story of who has power, and who does not; in order to create sustainable cities, these dynamics need to be understood and the needs of residents need to be met.

Thus, the question is raised: for what purpose do designers and policymakers plan cities? Urban planning is not a value-neutral activity; rather "it is shaped by values which must be made explicit, and planning itself is a fundamentally concerned with making

ethical judgments” (Global Report on Human Settlements). At its core, urban planning is concerned with space – who can use it and what it is used for. Interactions among networks of people and activities are either facilitated or hindered by spatial dimensions. Temporally, strategic interventions that take place in the present will redirect interactions in the future and therefore alter the evolution of urban areas.

This research project examines African cities through the case study of Nairobi at three different points in time: colonialism, post-independence, and today. Currently, 60% of Nairobi’s residents live in informal settlements without government services and the city today has a population of over three million (‘The Standard’). By looking at how and why Master Plans have or have not been created throughout Nairobi’s history, a larger narrative about urban areas and African households can be constructed. The Modernist discourse of the city-as-civilization has strongly impacted the development of Nairobi and delegitimized the domestic needs of native populations; this impact is still felt strongly in contemporary times. In order for healthy, equitable, and harmonious African cities to emerge, a new framework for urban planning must emerge that embraces urban agriculture and meets the domestic needs of urban households.

Nairobi: Background on UA

Within Nairobi, about one-third of all households participate in UA, either through agriculture or livestock raising. The primary motivator for UA among urban households is food security. 77% of all Nairobi households involved in UA produce food solely for household consumption (Egziebher et. al). According to Freeman, “fresh vegetables to supplement an otherwise bland and nutritionally inadequate diet based on maize meal [ugali]” is the primary motivator for UA activities (106). Food is expensive

for Africa's poor. Over a third of Nairobi's farmers spend 70 – 75% of their income on food.

Thus, UA is largely a subsistence activity to support households within the context of an urban economy that cannot properly employ a large percentage of residents. The large majority of urban farmers within Nairobi are women (some estimates place this number at up to 85% of all UA participants), who are more marginalized within the larger economy than men are, and also have the responsibility of meeting their household's domestic needs. UA is a way for poor households to subsist and even thrive; it is a undeniable and explicit reality of Nairobi and a key component of domestic life within the city.

UA functions primarily via local, informal networks rather than through official avenues. The “social aspect to access to land” and resources determines who participates in farming activities (Dennery). It is not merely an “accidental or temporary business” for urban newcomers until they can move onto more acceptable jobs. Rather, it requires access to social networks in order to gain the necessary land and resources. In Nairobi, urban farmers' average period of residence was 20.4 years (Egziabher et. al). If a potential producer knows of a friend or relative who wants to end cultivation, he or she will offer a gift – generally cash and perhaps a kilo of sugar – in order to gain access to the plot of land. New arrivals to the city must wait several years before they have the necessary contacts to access land via these informal means (Dennery). In the initial phases of UA, the potential farmers use social ties to obtain tools, seeds, and labor. Once established, farmers continue to rely on these same ties – friends, family, church or other social groups – for additional inputs, labor, and monetary loans (Dennery).

Because of its informal nature, UA carries risks. Its legal status is ambiguous at best. Urban farmers have no avenues through which to demand fair compensation from buyers. In order for UA to move from a primarily domestic activity to a form of business that can feed growing cities, it needs to gain institutional legitimacy. Participants will not invest in large-scale activities if they cannot be assured of fair transactions. Officials do not perceive farmers as valid stakeholders in urban spaces; they have no voice in the very policies that directly impact their livelihoods. “The negative attitudes of critical actors are particularly constricting” claim Mireri et. al in marginalizing participants of UA.

Like other activities within the informal sector, insecurity and fear of eviction from government-owned land define UA. Because the legal status of food production in Nairobi is vague, especially on public lands – and is implicitly discouraged at best – farmers worry how long they will have secure access to their plots. Loss of land “can have devastating consequences...for low-income producers” (Dennery). Urban farmers are acutely aware of the tenuous nature of land security; they know they can lose their land and livelihood at any time. Evictions usually occur without notice; construction crews simply demolish the crops and begin building. The constant insecurity faced by urban farmers impacts the type of agriculture that occurs. Urban farmers are less likely to make long-term investments in the land. Most plant fast maturing crops, rather than trees and other perennials, even though such production would increase profit and nutritional variety.

Additionally, insecurity limits incentive to invest in protecting the soil from degradation, thereby decreasing future yields. As the city grows, once under-valued and under-utilized areas are increasingly claimed. Therefore, the informal land tenure system

established by earlier urban residents is increasingly under threat by new migrants, land grabbing, and urban development (Gabel 120 – 121). Rising urban populations place land under increasing pressure, but the informality of space denies urban farmers basic security for their land. This therefore leads to an insecurity of whether poor households will be able to meet their basic food needs.

II. Africa and the Global Economy

Modernization Theory During Colonization

The root cause of a long-standing reluctance to support UA as a legitimate activity finds its origins in Africa's colonial history. "The planning ideologies that have shaped its evolution" are colonial and European in nature (Egziabher et. al). Although many cities over the course of history have incorporated UA into their design, in modern Western cities, agriculture is largely excluded except for recreational purposes. Following the division of space during the Industrial Revolution, "specific cultural connotations have become attached to the notions of the 'city' and the 'countryside'" (Egziabher et. al). Cities are the most overt symbol of modern capitalism; the Western city is the product of capital accumulation derived from the primary sector activities of rural areas. Agriculture was divorced from the rapidly expanding city as it proved uncompetitive to the demand for land for industry and development.

Within the context of Europe's colonies, this division was even more pronounced. Capitalist needs reshaped the organization of space within the colonies: the best agriculture lands were the seat of an export-based farming economy, while the African "homelands" provided a source of cheap labor. European industry was the beneficiary of this dependency economy; Cities became the representation of Western industry and

Western might within Africa: they epitomized the concept of the city-as-civilization. The study of UA within Africa therefore is also the study of the political economy of space and the perceptions that develop as a result of such rigid organizational divisions.

The city became the model of modernization that the colonial powers sought to impose onto African society. Early modernization theorists “viewed tradition, and the values associated with tradition and women, as absolutely incompatible with modern institutions” (Scott, 5). Modernity has always been defined in a dualistic nature, by what it is just as much as what it is not. The modern society stands “in opposition to a feminized and traditional household”. It uses science and technology to have mastery over nature. By establishing dualistic hierarchies, women, family, and community function as contrasts or “others” against the modern idealization of a rational, progressive, male-dominated public sphere. “it is impossible for a state to move into the twentieth century if its people continue to live in an earlier era” (Inkeles and Smith, 3 – 4).

Thus, colonial-era modernization required the separation of men from their households in order to become autonomous actors in the global economy. The process of ‘modernizing’ Africa therefore was dependent upon the physical demarcation of space, and the legitimizing of certain spaces above others. Within colonial-era modernization theory, the values associated with traditional society were absolutely incompatible with modern, Western institutions. According to Catherine Scott, the colonial conception development was “the ever-widening ability of men to create and transform their environment. Within this linear framework of evolutionary social and political change, women are ‘left behind’, confined to the household and denied citizenship. Women’s

continued subordination in fact defines male citizenship” (24). The duality explicit in modern philosophy became the foundation for the opposition between tradition versus progress and the household economy versus the global economy. These dichotomies between the traditional and modern encompassed a broad range of directly opposing values: nature/culture, woman/man, physical/mental, mothering/thinking, feeling and superstition/abstract knowledge and thought, country/city, darkness/light, and nature/science and civilization (Jordanova, 44). In understanding the values of the colonizers that were imposed on their newly acquired subjects and land, it becomes obvious that a practice like UA ran contrary to the entire hierarchical system of modernity.

The creation of separate public and private spaces within European colonies was considered necessary for the development of civilization in Africa. UA represents not just the blurring of these boundaries, but also an affront to the entire project of modernization. The city was the physical representation of man’s dominance over nature and tradition. This hierarchy was replicated at the individual level with the idealized modern man’s shift away from tribe, village, farm, and family to national citizenship, city residence, and industrial employment (Inkeles and Smith, 156). This conception of freedom requires nonrecognition of the household and the values it represents. Women – who were considered actors in reproduction rather than production – were innately symbolic of the household, which were interwoven into larger familial and tribal networks. More than just moving away from the household, modernization entailed the active subordination of the female-centered household as the means of creating a modern society (Hirschmann,

1235). The household, and the agrarian activities that took place within it, stood in opposition to the autonomous man-as-citizen.

David Lerner's 1958 book *"The Passing of Traditional Society"* describes the process of the supposed evolution from traditional society to modern society. At its basis is the modern man's autonomous struggle against "the passive, destitute, illiterate and altogether 'submerged' mass which looms so large in its sociological landscape" (410). Therefore, the differentiation of space – i.e. the creation of public/urban versus private/rural spheres – is a vital stage in the development of African societies, as they are lifted from their 'submerged mass'.

This concept of differentiation was transferred to the individual level as modernization theorists stressed the importance of rigid gender divisions. Modernized "boys and men come to deny the feminine identification within themselves and those feelings they experience as feminine; feelings of dependence, relational needs, emotions generally" (Chodorow, 109 – 110). Thus, modernization is defined largely by its negative: it is not the traditional, nor the feminine, nor the household. By constructing Africans and women as 'other' and peripheral, the rational, universal Western man could be placed at the center (Mohanty, 73). According to Joanna De Groot:

"Both non-Westerners and women...were understood and represented as less than adult through images and theories about their "child-like", "underdeveloped" character; their status as rational beings was denied through emphasis on their 'emotional', 'unreasonable', 'instinctive', qualities and behavior...Adulthood and rationality were simultaneously equated with elite, white, male experience and outlook, thus ensuring that women and non-whites

alike appeared as both different (‘other’) and inferior, to be understood in terms of their ‘failure’ to attain or ‘incapacity for such an experience and outlook”
(117).

Likewise, other modernization theorists espoused the importance of a stratified, hierarchical, dualistic socio-economic system within the European influence within Africa. Rostow’s 1960 “*States of Economic Growth*” introduces the concept of evolutionary stages of development. In order for men to break the “ceiling on the productivity of their economic techniques” a mastery over their environment is required (5). The shackles of tradition and rural drudgery were to be thrown off in favor of modernity: “Man need not regard his physical environment as virtually a given factor by nature and providence, but as an ordered world which, if rationally understood, can be manipulated in ways which yield productive change and, in one dimension at least, progress” (19). The natural world was a force to be dominated and exploited by man; traditional agrarian practices at the familial level were deemed inferior to advanced technologies and markets.

The goal of modernization theorists was to create a political and social order that served the economic needs of the global (i.e. European) economy. The major obstacle to development in African societies was the “combination of ‘traditionalism’ and a strong pressure to reproduce the existing pattern of economic organization wherever opportunity exists for its expansion” (Parsons, 147). The colonizers imposed new divisions of space and separate spheres because of the perception that existing models of social organization were anathema to economic productivity and the capitalist work ethic that accompanied the modernized social structure. These theories espoused the importance of creating

stratified societies that allowed for easy upward mobility, so that resources could be accumulated for development by a forward-looking bureaucracy. Familial and tribal ties must be severed so that this modern bureaucracy can emerge. Development was also perceived as a divisive process, as groups struggled for dominance over one another. This competition not understood to be a negative, but rather that the fight for power would build the long-term capacity of societies (Scott 33 – 34).

Scott raises the obvious question for contemporary readers: “Why is stratification necessary in order to marshal resources? Why is a concentration of power necessary for productive change to take place?” (34). Modernization theorists like Lerner, Rostow, and Inkeles and Smith would respond by legitimizing capitalism and markets, thereby supporting the hierarchical order necessary to create that system. Yet their theories also espouse the modernist narrative of the masculine and cultural gaining dominance over the feminine and natural. Thus, at a more abstract level, such theories are “also justifications for male dominance and denigration of traits historically associated with women. Liberal ideology and evolutionary functionalism join together to legitimate masculinist individualism and domination and exclusionary practices with regard to the household” (Scott, 34).

Nairobi: 1948 Master Plan

UA is a prime example of how rigid colonial divisions of space hinder the development of a self-sufficient and materially secure population. The boundaries and policies of colonial Nairobi were carefully defined in order to avoid subsistence farming and settlement – those practices which were deemed taboo within the Modern idealization of the city-as-civilization. Despite such regulations, UA has been recorded as

early as 1899 in Kenyan towns; Indian railway workers farmed and then sold their surplus to Europeans (Egziabher et. al). Nairobi was initially established as a railway camp halfway between Kampala and Mombasa in the late 19th century, but was chosen as the capital of the East African British Protectorate in part due to its high elevation.

The spot was also chosen due to its central geographic location: to the south were Maasai rangelands, with their dark brown, clay-like soil, while the best agricultural lands sat to the north, a sharp contrast of bright red, fertile land. These lands became the “White Highlands” for vast European commercial coffee, tea, and dairy estates. Africans were designated to twenty-four “native land units”; these reserves became the site of intensive subsistence farming upon which native populations depended (Freeman, 25). The wide-scale division and segregation of land as a means of effective economic production is evident from the earliest years of colonial influence.

Nairobi was officially mandated under the Townships Ordinance of 1903 as the seats of colonial authority in an international industrial economy. Urban spaces were early on designated as “islands of health” and security away from African populations. Lord Lansdowne writes to Sir Donald Stewart in 1904 that urban centers “should be carefully laid out with due regard to the...variety of nationalities situated within a few degrees of the Equator”. Furthermore the goal of this planning should be “in close connection with a satisfactory growth of the white population” through sanitation via “drainage, habitations, and the adoption of the means recommended by modern science” (Freeman, 28).

Yet it was not until nearly a half century later that a comprehensive urban plan of Nairobi was created in order to preserve the “safety, health, and well-being of its

inhabitants” (White et al., 17). The 1948 ‘Master Plan’ of Nairobi was undeniably a large-scale and far-reaching plan headed by a team of British and South African planners. Thus it must be noted that the apartheid cities at the south of the continent influenced the design of Nairobi as a racially-segregated colonial city. Separate neighborhoods were established for Europeans, Asians, and Africans.

For the latter group, visiting Nairobi from a rural area required a permit from the colonial government. Africans were required to state valid reasons and the period of their stay. Such measures were a part of an effort by the British to keep Africans out of Nairobi as much as possible. A member of the native population could not go to work in Nairobi without a place to live. All employers, such as Kenya Railways, “were forced to construct houses and were, hence, mandated under Employment Ordinance to provide housing to their employees” (‘The Standard’).

Furthermore, the government required househelp to live on the compound in servants’ quarters in order to keep black populations from living and mingling freely among Europeans. This led to a pattern of circular migration for men who travelled between a job in the city and their rural homes, often having two families as a result. Women and families – those symbols of tradition – were largely discouraged from living in Nairobi. Many of the women to live in Nairobi under colonialism were employed in sex work, in part to fill the demand created by the system of ‘circular migration’. This pattern of migration and the unaccepted nature of prostitution legitimized the Modernist discourse that cities were not sites for traditional households or for women, as they supposedly undermined the project of development.

The plan was designed for a capacity of 100,000 people. Nairobi was envisioned by the planners as “a far flung, sparsely populated, and open-air place” (White et al., 2).

It was divided according to a seven-district spatial structure (Freeman, 35):

1. The railway center
2. The Indian bazaar
3. The European business/administrative center
4. The railway workers’ quarters
5. The “dhobi” (washerfolk) quarters
6. The European residential suburbs
7. The military barracks (on Langata Road)

According to Freeman, this “ambitious and truly comprehensive urban plan...explains a great deal about the way in which informal urban agriculture has arisen in the city of Nairobi” (35). Almost 30% of colonial Nairobi was preserved as open space. Its planners described the appeal of the city as the result of “large estates, pleasantly spacious suburbs, and plentiful public open space” (White et al., 3). Broad sanitary public ‘buffer zones’ separated the European neighborhoods from Asian and African quarters. Today, the most explicit remnant of this racially-motivated planning is Kipande Road in Nairobi, which still separates the West and East of the city by a small forested strip of land. River valleys were also kept undeveloped in order to avoid disease and the build-up of unsightly garbage (see image 4, which contrasts the 1948 proposed green zone with today’s development).

The plan stressed the importance of a healthy environment for health purposes, as “river valleys should be reserved as open space because they are useful as drainage lines.

The existing 12 ft. wayleaves for malarial control may prove, in many cases, inadequate as the areas are built up and the run-off increases” (White et al., 66). The plan’s creators placed the heavy industry sector of Nairobi to the southeast of the urban area, so that prevailing winds could keep the polluting and noxious gases away from the rest of the city. The railway that enters the center of the city, which obviously cannot be removed, is even referred to as the “Nairobi problem” by the planners, as it clashed with their aesthetic vision of an open, spacious, and green city (White et al., 2).

Nairobi was designed to be the ‘green city in the sun’ – the city’s nickname – with broad boulevards and roundabouts as well as large areas of park and forest land. (Foeken and Mwangi). The city’s planners assert that “it is *space rather than building* which is seen as the future glory of Nairobi” full of “gardens, trees, greenery” that “soothe eye and spirit” (emphasis added, White et al., 2). The land-use plan they design is meant to achieve their goal of constructing the Garden City. Using the design philosophy of Ebenezer Howard (author of “*Garden Cities of Tomorrow*”), residential areas were segregated from commercial and industrial land. The overarching design is an inner green belt around the central business district with green corridors radiating outward (Freeman, 36 – 39).

The ‘neighborhood principle’ separated local interaction from arterial traffic, and main roads were converted into wide boulevards with grassy medians and landscaping. Large areas of rangelands and forestlands were maintained, and even planted with non-native species to ‘improve’ their appearance and appeal to British tastes. Leafy walkways bordered the Nairobi, Mathare, Masongawai, and Ngong rivers (Freeman, 36). The plan exalts the focus of green spaces within Nairobi: “What can be done with Open Space has

been shown by many peoples and civilizations, each giving expression to a vial part of themselves, indeed contributing to that civilization and summarizing it to others” (White et al., 54). In fact, a full 28.7 percent of the total city area is designated to be preserved as open space within the plan (White et al., 66).

Although this plan did incorporate nature into the design of the city, it is important to note that access to this open space was deeply exclusionary, and that its purpose was limited to those deemed acceptable within the Modernist framework. Residential [white] areas had a planned density of 15 people per acre. Zoning of residential areas had a half-acre minimum lot size in European areas, although in actuality lot sizes were a minimum of one acre per house in neighborhoods such as Muthaiga, Lavington, Upper Parklands, and Upper Hill. African neighborhoods like Pumwani, Pangani, Bahati, Ofafa, and Mbotela on the other hand had a density of twelve houses per acre. Each of these ‘estates’ was designed to be self-secluded, with a market, duka (shop), and beer hall (Freeman 36 – 37).

The plan’s designers did not outright reject UA. Rather, it was only deemed as an acceptable activity for Europeans, who would partake in gardening as a leisure activity. They even suggested that “some parts of the park [in a white residential district] might well be set aside for use as allotments for vegetable growing” (White et al., 37). They do reject the idea of making UA an integral part of Nairobi by providing services to any vegetable plots, as it was ultimately counter to the economic vision of the city as a member of the global economy. They write that “land values and the difficulties of piped water supply make it impossible to provide separate plots for each welling where crops can be grown (White et al., 37).

UA was essentially permitted and encouraged for Europeans, but it was not zoned for in any way. It must be concluded that UA was indeed accepted, but the authors were explicit in rejecting it as a viable economic activity. It was deemed solely a practice for leisure that fit into the grand concept of the Garden City. Furthermore, UA was prohibited for natives to participate in, as Public Health acts made UA illegal on any dwelling that was less than one acre. Obviously this excluded African housing, while allowing for the practice to occur on the large European plots of land. Any UA that Africans participated in was always in a tenuous position of being demolished, particularly if political concerns arose. For example, during the years of Emergency (1952 – 1960), authorities slashed crops like maize, beans, and vegetables that African women grew on small patches of waste land, because they were believed to be hiding places of Mau Mau rebels (Egziabher et al.).

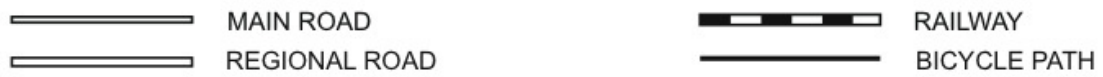
UA in the colonial capital of Nairobi exposes an interesting dichotomy present: nature and urbanity were allowed to co-exist, but only when those natural elements evoked images of leisure, grandeur, and cleanliness. The concept of ‘Garden City’ was meant to reinforce the importance of the city-as-civilization, as the ‘green spaces’ were controlled and refined as locations of pleasure and enjoyment. This concept of nature plays into Modernist conceptions of the purpose of the city. When UA was practiced out of economic necessity as a subsistence activity, it was made illegal and condemned. Land used for growing primary food sources for a household was perceived by Europeans as backwards and undermining the purpose of the African city. UA and nature was only deemed ‘good’ when it reinforced the aesthetic appeal and leisure of the larger urban economy.

1.



2.





KENYA CENTER	BUSINESS & COMMERCE	RESERVE FOR BUSIN. & INDUSTRY	RAILWAY	LIGHT INDUSTRY	HEAVY INDUSTRY
OFFICIAL BUILDING	OFFICIAL HOUSING	RESERVE FOR OFFICIAL HOUSING	RESIDENTIAL	OPEN SPACES	NOXIOUS INDUSTRY

3.



4.



(Aschwanden and Vogel)

III. Post-independence Divisions of Space

Urban Households in Africa

Post-independence in the 1960's and 1970's for virtually all African states brought about little fundamental change from their colonial predecessors. An entrenched elite was put in power that remained loyal to their former European governments. The modern conception of the city still remained the dominant discourse in governments, despite massive changes in cities in terms of the explosion of population and informality.

Regardless of this massive growth of cities, officials still remained ignorant towards the necessity and importance of UA.

A number of UA scholars have criticized the institutional exclusion of UA according to a feminist methodology: UA is a largely domestic activity (most farmers produce only for home consumption). The question, as posed by Egziabher et. al, therefore becomes whether such subsistence activities carried out mainly by women, should be dismissed as irrelevant and economically unimportant. Trenchard examines this issue on a national scale, noting how the woman's role is critical to labor for food production and maintaining nutrition. Government policy favoring globalized and capitalist cash crop production over small-scale subsistence activities both exacerbates the food crisis and undermines women's contributions to food security. UA must be examined as only one facet of a larger devaluation of the Kenyan household and women's contributions to it (Egziabher et al.).

Despite the ubiquity of UA, it has largely remained "invisible" and ignored by crucial actors in both official and civilian spheres. This unrecognized reality "reflects the fact that subsistence production, undertaken in the domestic economy, has not been considered to be of great significance...Capitalist penetration has simultaneously depended on women's food-providing role and undermined it" (Memon and Lee-Smith 25 – 27). Reproductive and productive activities merge at the household level to define 'women's' or 'domestic' work. From the earliest years of Nairobi, women have been largely excluded from urban public considerations, initially migrating as sex workers. They were – and continue – to live in the shadow of formality.

Domestic concerns remain undervalued, implicitly considered inferior to the larger capitalist economy. Gabel describes the nature of UA as conflicting interests between “Farming Mothers” and “Founding Fathers”. While perhaps overly reductive, the point nonetheless stands that the needs of women and their households are often in direct opposition with the desires of the state. Gabel writes:

“They [women] have demonstrated their ability to acquire access to large tracts of undeveloped urban land and maintain control of that land through the development of a complex informal land-tenure system, established over time through a web of women’s support networks. In a country where women are still fighting for legal control and ownership of land, women’s predominance in urban open-space cultivation attests to the very real presence of urban women in the city, expresses their entitlement to urban land, and demonstrates how significantly women have shaped the form and function of their urban environment” (118).

Despite their vitally important role at the core of urban life, the needs of women participating in UA remain unmet. In a series of interviews Gabel conducted with urban woman farmers in Zimbabwe, they expressed such frustrations: ‘We want to get the land and cultivate without fear’; ‘We need affordable prices for farming inputs’; ‘We want to be trained in easier and cheaper farming methods’; ‘We want security from theft for our little plots’; ‘We want to know if there are any other alternatives that will help us take care of our families’ (Gabel 121). Women urban farmers – in spite of their vital role as suppliers of food and nutrition – remain largely ignored within Africa’s institutional framework post-independence.

Nairobi: Metropolitan Growth Strategy of 1973

Post-independence, colonial-era zoning and development remained; the result was an environment that fostered the growth of UA. Africans were finally permitted to live throughout Nairobi, a city with large amounts of open green space. The increasing dependence by Africans on the ‘jua kali’ [hot sun in Kiswahili] informal sector in the years following independence meant that residents could farm with little government interference. Finally, the physical growth of Nairobi has meant that farms that were once rural have come to be located within city boundaries (Foeken and Mwangi). Once Nairobi’s borders were opened to Africans – who no longer needed ‘passes’ as under British rule – the city’s populations expanded rapidly: while the 1948 plan designed a city for 100,000 people, almost a million lived in the capital by the end of the 1970’s (Aschwanden and Vogel).

The Metropolitan Growth Strategy of 1973, which is the most recent Master Plan of Nairobi to exist, was meant to foster the healthy growth of Nairobi after Kenya gained independence. The plan was largely a failure, as it did not address the legitimate needs of Nairobi’s residents, but rather continued to reinforce the colonial plan, which was explicitly created to marginalize poor populations. The emphasis was placed upon large-scale notions of city expansion, which merely created a continuation of the foundation laid by the prior Master Plan. Green spaces were largely ignored in favor of concrete ‘development’. This lack of consideration has resulted in development encroaching on those spaces set aside by the Master Plan of 1948. This has fostered insecurity among Nairobi’s urban farmers as many of them rely on the use of public green space to grow crops and graze, but uncertainty over whether that space will exist in the future is always uncertain.

Like its 1948 counterpart, the plan made heavy use of zoning, as it spelled out the standards, rules, and regulations to be adhered to, rather than a truly visionary or comprehensive design. The plan recommends the “decentralization of the industrial centers to the east and northeast of the city, the creation of other satellite centers, creation of three main bypasses, and limiting employment within the Central Business District to 100,000 people” (Oyugi and K’Akumu, 101). Four major areas were chosen for development: Dagoretti, Karen-Langata, the Eastern Area, and the areas to the north-east around Ruiru. The plan proposed building up these areas so that they would have their own industrial, residential, commercial, and administrative sub-zones. An expansion corridor running along Thika Road (to the north and east of the city center) was designated as the prime location for urban development to take place (Aschwanden and Vogel).

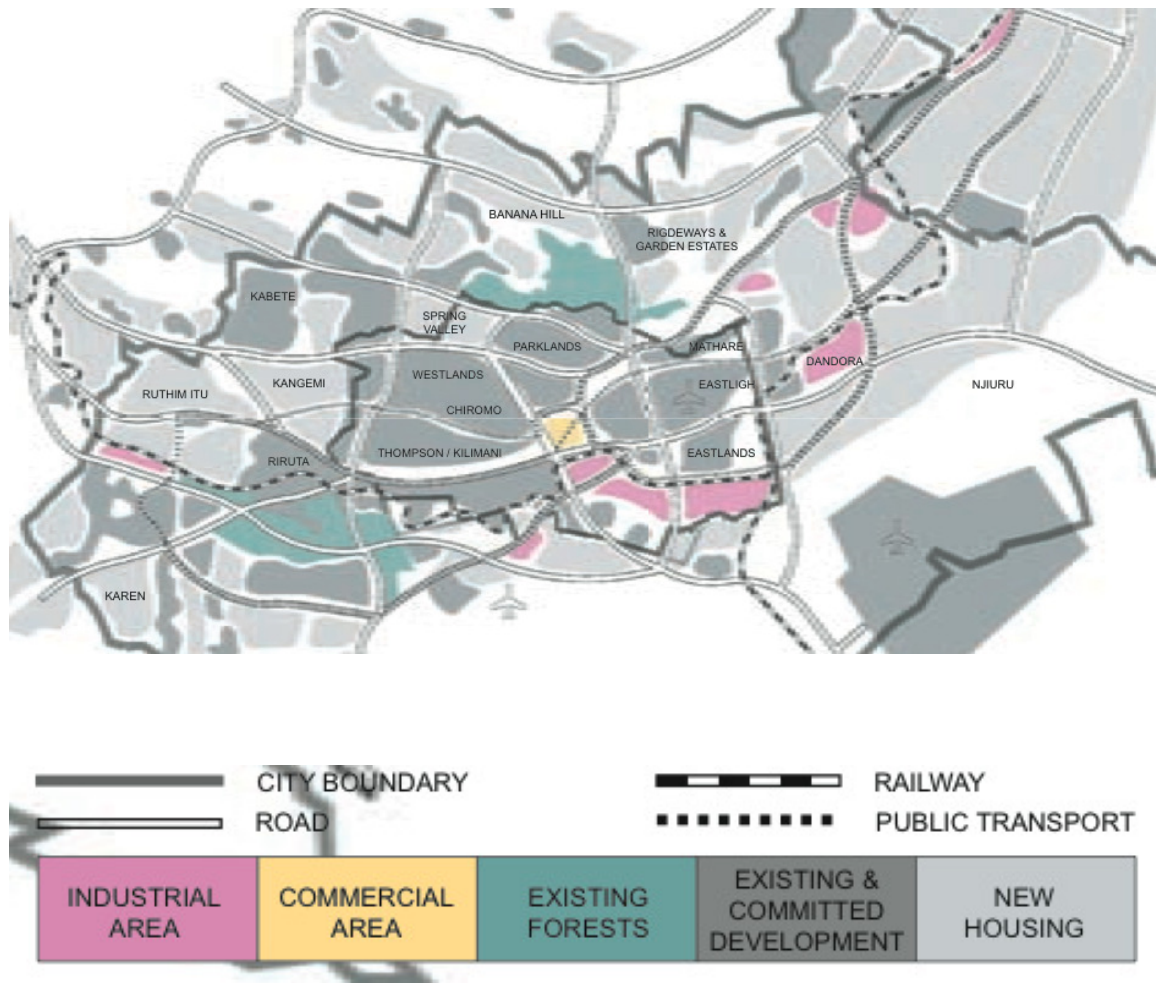
Ultimately, very little was accomplished with the Metropolitan Growth Strategy of 1973. This is because the plan was weighed down in statutory rules and regulations regarding implementing any substantial projects. Another major problem was land grabbing along the proposed Thika Road corridor. Because the expectation was that the government would invest in infrastructure building in this area, the president’s family and government employees began buying large tracts of land along the road. This speculation led to highly inflated land prices. The fact that the city was never allowed to expand has meant that space is highly limited (Aschwanden and Vogel). For farmers in urban areas, overdevelopment has huge implications on whether they can feed their households.

Likewise, the plan relied on foreign and government funding for its commissioning, but neither the government nor donors provided adequate technical and

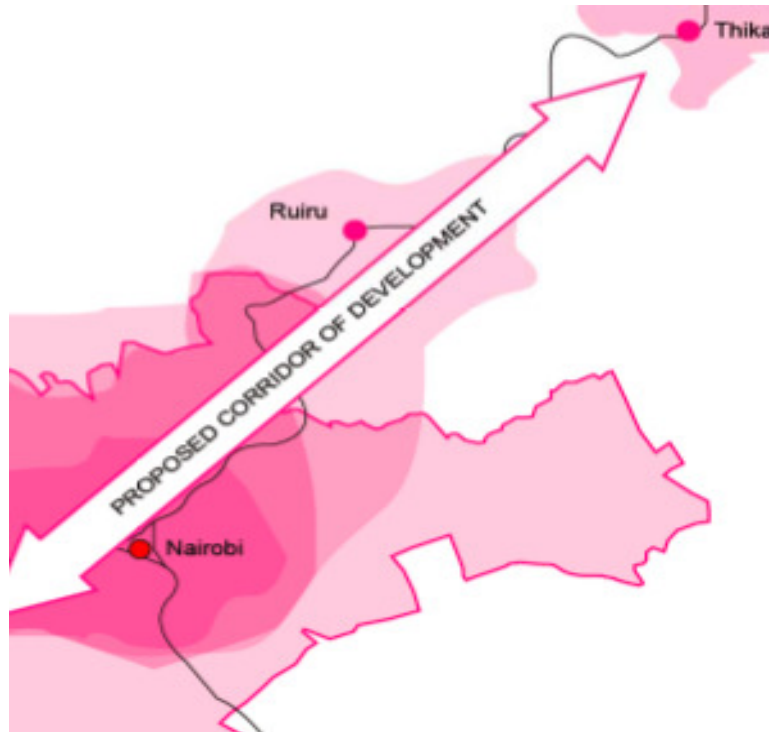
financial support. This could in part be the result of a shifting paradigm regarding the role of cities in the developing world. Rather than a focus on urban plans and “growth strategies”, those deemed ‘experts’ in the field largely abandoned the development of African cities. A new viewpoint emerged that “urbanization was a parasitic process leading to underdevelopment and the neglect of agriculture” (Tacoli, 153). As a result, large-scale urban development projects, like Nairobi’s 1973 plan, were replaced by new policies aimed at developing Africa’s rural sector. The attention that was focused on cities by international and state actors was minimal. The type of plans that emerged in the 1980’s were largely single-issue, and failed to fit into the larger picture of Nairobi’s long-term development.

The rural-focused development initiatives that replaced urban plans during this time have largely been considered failures. This is because that approach failed to see rural linkages with urban centers. The sharp rural-urban divide that was conceptualized by Modern divisions of space never existed; urban and rural spaces are interconnected and interdependent. Yet the development field continued to reinforce this construct of separate spaces between Nairobi and rural Kenya. UA is a prime example of this false logic, because it merges urban and rural, but policymakers ignored the practice because it did not fit the narrow concept of a city. This is highly unfortunate because Nairobi most needed a strong urban plan shortly after independence when it was growing and transforming at a rapid pace.

1.



2.



(Aschwanden and Vogel)

IV. A New Urbanism

Legitimizing Urban Agriculture

UA distinguishes itself from its rural counterpart not simply because of its location in cities. Instead, UA must be considered as an integral component of entire urban systems: economic, social, and ecological. In a larger sense, this integration is representative of a shifting mode of discourse regarding urbanism among scholars, planners, professionals, and urban residents themselves. New approaches to urban planning have emerged as the concept of urbanism has been transformed; a gradual shift

away from modern to post-modern values has directed this change. Post-modernism destroyed the ‘Grand Narrative’ of order and rationality, which privileged Western, masculine realities, in favor of the emergence of what Jean-Francois Lyotard terms ‘small discourses’ (16). Thus, the emergence of UA as a field of interest is the direct result of the legitimization of the feminine and the domestic narratives within society.

While traditional urban planning perceived of space as single-use and permanent, a ‘New’ vision of cities has emerged to replace it. Urban forms and uses reflect the rich multitude of discourses contained within the city space. According to the 2009 United Nations Report on Human Settlements, this form of urban planning is characterized as: *strategic* (rather than comprehensive), *flexible* (rather than end-state oriented), *action-focused*, *community-driven*, *concern-centered*, *integrative*, and *process-oriented* (Global Report on Human Settlements). It is through this contemporary framework for cities that UA has been legitimized; those who depend upon UA (women, households, the poor) now have their ‘small discourses’ considered. The challenge unfortunately remains how to bridge this vision of urban planning with the pre-existing realities and structures that dominate decision-making within cities.

UA is fundamentally embedded in and interacting with the urban ecosystem (Mougeot). Beginning in the 1980’s, UA arose as a vital component of the emerging concept of ‘sustainable cities’. The influential World Commission on Environment and Development (more commonly called the Brundtland Commission) urged all governments to consider adopting UA policies because it simultaneously could stimulate poverty eradication while also “provide fresher and cheaper produce, more green space, the clearing of garbage dumps, and recycling of household waste (World Commission on

Environment and Development, 254). Researchers began to conceptualize of UA as necessary for ecologically-sound urbanization. According to this new framework, creating sustainable and self-reliant cities requires fostering food production within and around cities (May and Rogerson, 1966). As the environmental movement began to embrace UA, it “graduate[d] from being a topic of interest for the mass media and activism to becoming a field of professional and institutional endeavor” (Mougeot, Gasengayire et al.).

Especially for Africa, UA is not simply an isolated peasant activity, but is “a critical part of developing more productive and viable urban habitats (Wade, 2003). In the long-term, UA is an integral aspect of sustainable cities of the future, in terms of ensuring food security and fostering viable communities through food ‘sovereignty’ or ‘self-reliance’. From an ecological standpoint, UA can contribute to resource conservation, waste recycling, and reducing the need for ecologically and economically expensive perishable food transportation (May and Rogerson, 1966). Supporters of UA advocate that it “is the largest and most efficient tool available to transform urban wastes into food and jobs, with by-products of an improved living environment, better public health, energy savings, natural resource savings, and urban management cost reductions. Thus, UA has been at the core of the framework of sustainable urbanism for its potential ability to integrate social, economic, and environmental systems within the urban fabric.

Social Ecology

On a more abstract level, UA is representative of a worldview in which human and natural interactions must be redefined so that they are embedded within an equitable society. Murray Bookchin pioneered this school of thought in the early 1980’s; the term

‘ecology’ replaced ‘environment’, as the latter stresses that “humanity must show a conscious respect for the spontaneity of the natural world” (Bookchin). Thus, the concept of ecology emphasizes a more intimate, harmonious relationship between humans and their natural surroundings. According to social ecologists, the future well-being of societies depends upon the principles of diversity and nonhierarchy. Within ecosystems, diversity is vital for stability; simpler ecosystems – whether natural desert and arctic biomes or human-created monoculture forms of food production – are more fragile and more prone to catastrophe. Society must allow the natural world to unfold spontaneously as it was intended, with interactions being self-aware and self-active “in order to allow it “to unfold and actualize its wealth of potentialities” (Bookchin).

Secondly, social ecologists discourage hierarchies of domination or superiority, because these are not found in the ecosystem: “there are no ‘kings of the beats’ and no ‘lowly ants’”. These notions are the projections of our own social attitudes and relationships on the natural world” (Bookchin). The variety of organisms and entities co-exist and complement each other within a complex network of relationships; the balance and integrity created by these relationships maintains the whole (i.e. the entire ecosystem). Just as nature recognizes no hierarchy, humans must also dismiss notions of being able to ‘master’ nature as they choose. According to the social ecology worldview, the fallacy that it is acceptable, even necessary, for humans to dominate the natural world stems from human hierarchies (man over woman, old over young etc.). Therefore, the best way to address environmental degradation is to destroy the hierarchies and injustices that humans practice on each other because such behaviors make it acceptable to exert this same domination onto nature.

It should come as no surprise that the origins of the ‘sustainable development’ movement arose almost simultaneously with the emergence of the social ecology school of thought. The famous Brundtland Report defined the concept as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” in 1983 (World Commission on Environment and Development). Urban planning began to embrace sustainability through the principles of diversity and non-hierarchy; urban form and function became rooted in the conceptual framework of ‘urban ecosystems’. It is within this change in discourse that UA emerged as a culmination of what entails ‘sustainable cities’: diverse, self-reliant, equalizing, cooperative, etc.

According to the framework of social ecology, “humans will flourish physically, economically, socially, and spiritually in societies modeled on nature” (Wapner, 63). As alternative philosophies to Modernism arise, humans have begun to reorient their perspectives on their environment and fellow humans alike. UA captures the spirit of sustainable architects such as William McDonough, with his mentality that “waste equals food”. He seeks to alter the way societies are planned and managed, that there instead needs to be “a new set of design assignments”. He and fellow sustainable designers ask: “Wouldn’t it be wonderful if we could design things that didn’t produce any hazardous material that is put into our soil, our air, and our water? Wouldn’t it be wonderful to measure productivity by how many people are working?...Wouldn’t it be wonderful if we didn’t require regulations at all because we’re not trying to kill each other? If we didn’t produce anything that results in intergenerational remote tyranny?” (McDonough). Although approaching environmentalism from perhaps a different perspective than

someone like Bookchin, this ‘tyranny’ that McDonough writes of returns to the same core value in social ecology of nonhierarchy. If there is a dominance of humans over nature, then there also will be dominance among humans towards each other. Both constitute a form of tyranny.

For advocates of social ecology, UA is a harmonizing and equalizing activity. Urban planning from a social ecology perspective facilitates diverse (i.e. mixed use) and egalitarian (i.e. useful to the poor) spaces. UA has been so heavily stressed within sustainable design because of its ability to increase food sovereignty, community viability, and healthy natural environments. UA fits the primary criteria for a diverse and nonhierarchical urban system, and has therefore been embraced by planners and scholars alike. Proponents of UA believe it promotes harmony between humans and the environment, because “this kind of activity will allow us to reestablish contact with nature, something that has been lost in large urban centers. Respect for nature, on top of food production, will be one of the benefits of UA” (Quon). Thus, UA is a prime example of how respect for the human and nonhuman worlds must occur simultaneously. The two are mutually reinforcing: humans create urban ecosystems for own use, but also must be reverent to those greater-than-human systems.

This potential though, as outlined earlier, has been hindered by state processes, exposing a fundamental conflict of interest between different actors as to what the purpose of what city planning should be; urban design is a value-loaded act. The crux of this discourse seems to hinge on the question of whose needs are deemed most legitimate within cities; urban spaces are the physical representation of that legitimizing process. UA is more than just a new form of agriculture or a byproduct of the rapidly growing

trend of urbanization. More importantly, it is the acknowledgment of the household and the domestic sphere within African society that has remained marginalized within colonial, state, and global power structures.

Nairobi: The Future of Urbanization?

In 2000, the post-independence 1973 master plan of Nairobi expired. For the past eleven years, Nairobi – a rapidly growing, changing, dynamic urban metropolis – has lacked a master plan. During this time any construction occurring in Nairobi is technically illegal as a result of the lack of a master plan. Beginning in 2008, the national government has attempted to alleviate this situation by creating the Nairobi Metropolitan Development Ministry. Although at first glance this seems like it would be an exciting and positive prospect for Nairobi's urban development, it is merely another political act of patronage. Rather than hiring qualified professionals who could infuse Nairobi's urban environment with innovation and new ideas, President Kibaki's office filled the ministry with his loyal cronies. Of 119 staff members, 47 are from Kibaki's Kikuyu tribe, while 74 were posted directly from the central government. The creation of yet another bureaucracy for those in power to provide favoritism to 'their own' means that little will be done to create sustainable urban spaces. Rather, 'business as usual' in Kenyan politics seems to be the case (Ngirachu).

Since 1973, the closest Nairobi has come to having a plan for the future is the 1993 City Convention on Actions towards a Better Nairobi, but this has remained inadequate. The lack of a functioning and implementable Master Plan has led to urban development functioning in an ad-hoc and clientistic manner, creating large spaces for corruption to flourish. According to Olima, the most visible consequences of the

improper use of Nairobi's land include "urban sprawl, proliferation of informal and slum settlements, deterioration of the urban physical environment, problems of overcrowding and congestion, absence of social and community facilities, unbalanced land development patterns, land-use conflicts, land speculation, and escalating land and property values" (Olima).

Corruption has deeply marred the development process, making it nearly impossible for a comprehensive city to emerge unless a functioning plan is enacted.

According to sustainable Nairobi architect Eric Kigada, the lack of a master plan "has created a vacuum space. If someone wants to build, then they go to the city council, but no one wants to put anything down in writing because they could get blamed later". This situation leads to uncertainty and confusion, as "it took [Kigada] running around to five ministerial buildings" to find a plan for the city's roads. Likewise, when a developer will "go out with a bulldozer to graze the soil, the city council guys will come out and arrest the contractor" (Kigada). This creates huge setbacks, as buildings are being built where there is a plan for a road or other type of infrastructure. Without access to a master plan, there is confusion and corruption between developers and officials. Nairobi will not be able to meet the needs of its residents nor grow for future residents without having an overarching plan that defines the needs of the city.

The lack of implementation of urban planning in Nairobi has had a huge detriment on poor households' quality of life and the overall environment health of the city – the two of which are deeply interconnected through activities like UA. The president of the Architectural Association of Kenya Gideon Mulyungi notes that it is nearly impossible for "any urban city to undertake major construction projects without a

master plan. Nairobi was designed half a century ago for a population of half a million people while the population today is three million. This has overstretched entirely all the services of the whole city” (Aschwanden and Vogel).

What this ultimately means for urban farmers is that there is increasingly limited space to farm because green spaces are not protected from haphazard and illegal developments. Furthermore, soil and water within Nairobi is becoming increasingly polluted as there is a lack of healthy and functioning natural systems to filter pollutants from the environment. This presents a huge health hazard to Nairobi’s population as many of the foods consumed come from UA. According to Kigada “Nairobi is lucky. We have three rivers”; because of these abundant natural resources, there is great potential in “attempts to reverse the degradation of the city of Nairobi”. This degradation is the result of a lack of legitimate urban planning, as solid waste and pit latrines are placed right next to rivers and infrastructure is built on flood zones. Likewise, sewage enters the water system when there is overflow from rainwater. (Kigada). The lack of a master plan and lack of overarching vision for Nairobi has very direct environmental and human impacts that effect households’ quality of life and sense of material security.

Conclusion

Nairobi, like other African cities, has a vital and thriving UA informal network upon which urban households depend to meet their domestic needs. Nairobi’s officials and civil society must embrace pro-poor strategies and environmental preservation in order to create a flourishing and healthy city that can feed its residents. Rather than creating expansive plans of growth that never get accomplished or falling into the trap of over-regulation and over-bureaucratization, urban planners in Nairobi must enact scalable

change at the local level. For example, a key example of a do-able, exceedingly simple environmental intervention was the elevation of informal settlements away from a river bank in Nairobi.

Rather than knocking the settlement down and dismissing it as illegal, the project used natural reeds to keep the dwellings away from the river. The reeds act as a natural filter for the river water that is polluted by human waste (Kigada). Rather than condemning illegality and informality – as has been done to urban agriculture – planners in African cities must find simple solutions that improve both the environment and human well-being. Instead of relying on European conceptions of what a city should look like and function for, a new form of land use must emerge that meets the local needs of urban residents and can adapt to changes in the future. Urban planning in African cities has long been weighed down by complacency and corruption, but new, innovative, and progressive planning can meet the needs of Africa's households well into the future. By promoting small-scale interventions and using green spaces to their full-potential, urban spaces can legitimize the needs of those who have traditionally been marginalized within African cities.

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