

The Rationalization of Space and Time: Dodoma, Tanzania and Socialist Modernity

The categories of space and time are crucial variables in the constitution of what many scholars deem as modernity. However, due to the almost exclusive interpretation of space and time as components of a modernity coupled with global capitalism (Harvey 1990; Jameson 1991), discussions of a *socialist* space and time as a construction of an alternate modernity during the 60s and 70s—in particular across the Third World—have been neglected. Julius Nyerere’s project of collectivization, or *ujamaa*, in Tanzania during this period is a prime example of an attempt to develop the nation-state outside of the capitalist format. While it would be interesting to explore the connections Nyerere had with other socialist Third World countries, like China, within the international context, and their attempts at nation-building, this paper will focus on an analysis of the Tanzanian government’s decision in 1973 to move the capital of the country from the Eastern port city of Dar es Salaam to the more centrally located Dodoma. Although the Tanzanian government never completed the majority of the buildings analyzed in this paper due to a lack of funds and a diminishing political will, the exhaustive blueprinting and documentation does provide a glimpse into the conception of an African socialist modernity. The questions of primary importance are: How did moving the Tanzanian capital from Dar es Salaam to Dodoma embody Nyerere’s vision of socialist African development? Or more specifically, how did the socialist urban planning of Dodoma fit into the greater project of *ujamaa* and rural development? And finally, how was the planned construction of a new urban capital an attempt at a definition of socialist space and time?

Space, Time, and *Homo Economicus*

In his seminal work, *The Condition of Postmodernity*, David Harvey explains why the categories of space and time are constantly cited as the primary way to understand a transformation in a human being's relationship with his or her surroundings. Revolutions in how humans conceive of space and time can be read as a transformation in both individual and collective consciousness and form some, albeit problematic, conception of the stages of history.

From this materialist perspective we can then argue that objective conceptions of time and space are necessarily created through material practices and processes which serve to reproduce social life.... The objectivity of time and space is given in each case by the material practices of social reproduction, and to the degree that these latter vary geographically and historically, so we find that social time and social space are differentially constructed. Each distinctive mode of production or social formation will, in short, embody a distinctive bundle of time-space practices and concepts. (Harvey 1990, 204)

For Harvey the mode of production of a given community is intricately linked to the kind of social formation that reproduces life from a larger scale of nation-building to the everyday relationships and interactions between people. What is interesting in Harvey's analysis is that he does not posit an objective notion of space and time that exists as some kind of generic *a priori* category from which people derive notions of history and progress. It is precisely because material practices reproduce social life that a certain society can arrive at a contextual and historically specific notion of space and time. The importance of materiality in this argument was

highly important for many Third World intellectuals as they attempted the creation of nation-states during the fallout of World War II, the start of the Cold War, and the process of decolonization. Nyerere's Tanzania was no exception. For Harvey, the history of social change is understood through the ideological interpretation of the categories of space and time. In socialist Tanzania of the 1970s, the ideology was emphatically Marxist.

Before I turn to the Tanzanian example, it is important to understand these categories of space and time outside of their abstract generics. In order to analyze a transition to some kind of socialist modernity, I must first deal with the notion of the *rationalization* of space and time. For Harvey, this rationalization comes in the capitalist form of industrial revolution. In fact, many theorists have posited that the transition to modernity—and its twin components of modernism and modernization—is based precisely upon the function of the rationalization of society.

Michel Foucault explains the transition from a classical *episteme* to the modern one:

When natural history becomes biology, when the analysis of wealth becomes economics, when above all, reflection upon language becomes philology, and Classical *discourse*, in which being and representation found their common locus, is eclipsed, then, in the profound upheaval of such an archaeological mutation, man appears in his ambiguous position as an object of knowledge and as a subject that knows: enslaved sovereign, observed spectator. (Foucault 1966, 312)

For Foucault, the classical *episteme* was marked by a kind of taxonomy where all beings or things have a specific place in a grid of knowledge. This classification of the world used representation as the defining characteristic for the placement of a particular object into a

category. Because of this, the representational mode of the classical discourse of the European seventeenth and eighteenth centuries viewed the world through the lens of mere classification—the human subject was always the observer, never the object of analysis. In the transition from the classical episteme there occurred a collapse of representation; namely, by observing only the external characteristics of objects, the classical mode of analysis could never look at the internal structure of a particular phenomenon. In contrast, the modern episteme necessitated a look beyond how an object looked or sounded and focused on the *depth* of the object's structure. In order to move past the superficial analysis of the classical episteme, it was necessary to find the depth of an object's structure through its relationship with the human.

In the modern episteme the human became the center of analysis, the focal point from which all other analyses or explanations of phenomena would find their locus. Looking at how life related to the human became the study of organisms, which led to biology. Once the study of wealth was related to the human, it became the study of value, of labor, which produced the discipline of economics. The study of language became the study of grammar, which in turn created the discipline of philology. The order-focused system of classification of the classical episteme gave way to the historical narrative of history, of the succession of events. Moving from “causality” to “succession” meant analyzing the empirical world in relationship to the human and also to a new conception of empty, homogenous time and a notion of space that relied upon, for example, empirical observations of the locations of natural resources and how best to transport these resources through space for the benefit of society. In short, the modern episteme gave birth to the human sciences, to economics, anthropology, psychology, sociology, and literature, which posited the human as the center of study, as the “enslaved sovereign, observed spectator” (Foucault 1966, 312). This *rationalization* of existence, namely

understanding the human as not just an observer of external phenomena but also an object of enquiry him- or herself, marked the entrance of Europe into what Foucault termed modernity.

Capitalism, because of its fascination with *homo economicus*, came to define modern existence in Europe during and after the Industrial Revolution. European colonialism of the African continent can thus be read as the spread of capitalist, and thus what the colonizers defined as “rational,” conceptions of space and time across the colonies in order to speed up the turnover time of capital and increase profits. Harvey defines the rationalization of space and time within what can now be read as Foucault’s modern *episteme*:

The incentive to create the world market, to reduce spatial barriers, and to annihilate space through time is omni-present, as is the incentive to rationalize spatial organization into efficient configurations of production (serial organization of the detail division of labour, factory systems, and assembly line, territorial division of labour, and agglomeration in large towns), circulation networks (transport and communications systems), and consumption (household and domestic layout, community organization, and residential differentiation, collective consumption in cities). Innovations dedicated to the removal of spatial barriers in all of these respects have been of immense significance in the history of capitalism, turning that history into a very geographical affair—the railroad and the telegraph, the automobile, radio and telephone, the jet aircraft and television, and the recent telecommunications revolution are cases in point. (Harvey 1990, 232)

The notion that within capitalism, space is continually taken as a target of annihilation by time means that the logic of space becomes completely divorced from any non-profit-oriented construction. What Harvey means by annihilation is the removal of any spatial barriers in order to insure more “efficient configurations of production,” “circulation networks,” and “consumption.” Here, the somewhat cliché adage of “time is money” takes on its true meaning. To recall Foucault, the *homo economicus* thus becomes a metonym for human existence as a whole. Labor becomes a commodity that is sold on a world-wide market, creating dislocations in social fabric as people must migrate to where there are jobs, and resources are conceived of not in terms of their capacity for indigenous development, but in their bond ratings on the global stock market. Even science is not immune from promoting its own marketability. Research to provide new innovations in technologies like telecommunications are primarily conceived of not in terms of bringing social networks together, but rather as bringing capital networks together in an ever-increasing compression of space and time for larger profits.

It is tempting at this point to continue with Harvey and his Marxist critique of global capital, but instead I would like to return to an analysis of Third World development policies in the 60s and 70s, and how Tanzania’s socialist experiment was conceived of as a supremely modern response to the extractive nature of global capital and colonialism. Tanzania gained independence from Britain in 1961 in a relatively peaceful fashion in comparison, for example, with neighboring Kenya with its violent Mau Mau rebellion of the 1950s. Julius Nyerere became the head of the national organization for Tanzanian sovereignty, Tanganyika African National Union (TANU), and became the country’s first prime minister in 1961. With the Arusha

Declaration, given on February 5th, 1967,¹ Nyerere outlined his vision of pan-African socialism, the newly independent Tanzania, like so many other Third World countries of the period, took a hard turn left into Marxism and socialist national development policies.

One of the major transformations of Marxism in the Third World was its rejection of the need for a staged capitalist industrialization and urbanization that would lead to the creation of an urban proletariat, which would later serve as the backbone for socialist revolution. Because almost all Third World countries had no industrial infrastructure to speak of, many intellectuals and leftist politicians—foremost among them Mao Zedong—felt that there was no need to go down the path of capitalist development in order to create an urban proletariat. Could not the new nation construct and develop its people and resources in a *socialist* way from the beginning? Because the policies of European colonialism were based purely on extraction of resources rather than a wholesale development of the colony, the vast rural territory of many newly independent African countries remained mired in poverty. Thus the Maoist notion that the new backbone of the socialist revolution was not to be found exclusively in the urban proletariat, but in the peasant masses in the countryside, became highly persuasive for thinkers of postcolonial national development. Many African leaders, foremost among them Julius Nyerere, adopted this focus on agriculture and development of rural areas instead of urban centers.

Ujamaa and Modernity

In his Arusha Declaration of 1967 Nyerere highlights the necessity of a labor-intensive

¹ This date does not correspond to the ones on reference list. 1967 was when the speech was given—the 1968 date comes from the when it was put into a collection of speeches and published. I've been specific in the text on the date the speech was given.

model of development instead of a capital-intensive one:

From now on we shall know what is the foundation and what is the fruit of development. Between MONEY and PEOPLE it is obvious that the people and their HARD WORK are the foundation of development, and money is one of the fruits of that hard work. From now on we shall stand upright and walk forward on our feet rather than look at this problem upside down. Industries will come and money will come but their foundation is THE PEOPLE and their HARD WORK, especially in AGRICULTURE. This is the meaning of self-reliance. (Nyerere 1968, 246)

This notion of self-reliance is integral to Third World national development policies of the 60s and 70s because it was formed in resistance to the Cold War politics of the United States and the USSR. By asserting its nonalignment with either the Soviet or American spheres of influence, the mantra of self-reliance became a primary principle of the Tanzanian socialist project. The Arusha Declaration asserts that while *capital* is important to the overall construction of an industrial infrastructure, it would compromise the principle of self-reliance because the Tanzanian government would have to seek outside aid in the form of loans from and contracts with either the capitalist West—America or the old metropole of Britain—or the Soviet Union. While more prone to deal with the Soviets than the Western powers, Nyerere wanted to demonstrate the utility of one of Tanzania's greatest resources: its people. Rural development via a concentration on agriculture and hard work would serve as the groundwork for the advent of Tanzanian modernity.

It is important to note that even within an explicitly Marxist framework of modernity there exists a rationalization of space and time. The notion that national development must be labor intensive instead of capital intensive emphasizes the role of *homo economicus* as the main engine for bringing modernity into the country. The transition from the Foucauldian definition of the classical episteme to the modern one exists within both capitalist and socialist schemas. In fact, the very idea of a “scientific socialism” implies a kind of rampant empiricism, which dictates that human society should operate in accordance with a series of laws derived from the human sciences and Marx. For Nyerere, this scientific socialism interacted with Tanzanian traditions to form the basis of rural economic development: *ujamaa*, which roughly translates as “familyhood.” Nyerere wrote in 1962:

‘*Ujamaa*,’ then, or ‘familyhood,’ describes our socialism. It is opposed to capitalism, which seeks to build a happy society on the basis of the exploitation of man by man; and it is equally opposed to doctrinaire socialism which seeks to build its happy society on a philosophy of inevitable conflict between man and man. We, in Africa, have no more need of being ‘converted’ to socialism than we have of being ‘taught’ democracy. Both are rooted in our own past—in the traditional society which produced us. (Nyerere 1966, 170).

Here, Nyerere is wholeheartedly supporting the pan-African movement that posits a positive notion of African history as already inherently socialist. His critique of the “doctrinaire socialists” lies in the aforementioned rejection of the Marxian stages of history, wherein a society must arrive at some level of capitalist industrialization in order to give birth to the urban

proletariat and thus the potentiality for a worker's revolution. If a society already has the antagonisms of class struggle, then it has already attained a certain level of industrialization, and implicitly, modernity. For Nyerere, to avoid capitalist exploitation by a ruling class also means to avoid the discourse of class struggle in favor of some appeal to an indigenous African socialism that has existed on the level of the family for centuries. *Ujamaa* is a policy that attempts to preserve the traditional Tanzanian structure, which Nyerere states is based on the "recognition of 'society' as an extension of the basic family unit" (Nyerere 1966, 170). Socialism, taken in an almost literal etymological way, is then only the extension of the blood ties of the family structure to the larger society as a whole. Nyerere's project is thus a "traditional modernity" wherein preindustrial notions of space and time are preserved even within the greater context of nation-building and economic growth.

However, this does not mean there isn't a clear distinction between capitalist and socialist conceptions of modernity, and inherently, conceptions of space and time. While not explicitly a Marxist, Karl Polanyi (1944) decries the commodification of three components of society: labor, nature, and currency. It is important to note that the commodification of labor, resources, and money means these three categories occupy a special relationship to the market. Polanyi's major critique of free-market capitalism lies in how these three aspects of society—which he cites as essential for the establishment of a properly *modern* society—are subjugated to the whims of the market. He writes, "The extension of the market mechanism to the elements of industry—labor, land, and money—was the inevitable consequence of the introduction of the factory system in a commercial society. The elements of industry had to be on sale" (Polanyi 1944, 78). For Polanyi, any socialist project must necessarily reject not the categories of labor, resources, and capital as such, but rather the notion that the human is primarily *homo economicus*. The

conception of the human as more than just an economic entity is one of the fundamental aspects of Nyerere's Arusha Declaration and policies of *ujamaa*, and reveals the ambivalent nature of how Third World development policies attempt to obviate the subjugation of the social fabric—and thereby certain notions of space and time—to the exigencies of a free market. Nyerere's critique of the “doctrinaire socialists” of Europe in favor of an African socialism rooted in some primordial notion of family, is an attempt to fuse modernity and tradition—and their respective conceptions of space and time—within the Tanzanian context.

The redefinition of space and time according to the policies of *ujamaa* emphasized the labor-intensive nature of development and meant for the Tanzanian peasants a new way to think about time in particular. Here, Harvey's notion of capitalist time annihilating space in favor of subjugating all social fabric to the market mechanism is resisted. In the Arusha Declaration, Nyerere wrote,

In other countries, even those which are more developed than we are, people work for more than 45 hours a week. It is not normal for a young country to start with such a short working week. The normal thing is to begin with long working hours and decrease them as the country becomes more and more prosperous. By starting with such short working hours and asking for even shorter hours, we are in fact imitating the more developed countries. And we shall regret this imitation. (Nyerere 1968, 244)

Here Nyerere's call for a labor-intensive model of development meant that Tanzania, since it was lacking in investment capital, should depend upon its natural surpluses of labor, resources, and above all, time. Time within this socialist conception of modernity is directly linked with the

capacity for national development via an emphasis on collectivized land and agriculture. Nyerere explicitly does not want to imitate Western developed countries. Time is not linked with the ever more rapid accumulation of private profit and further investment in other entrepreneurial projects, but rather with national development and prosperity—no matter how long it may take. The individual's time is not his or her own, but is instead a kind of sacrifice given for the collective that culminates in national development and modernity. For Nyerere, socialist time is national time.

In addition to this new conception of time, Nyerere's project of *ujamaa* was a transformation in terms of the spatial organization of communities. In order to avoid the rampant urbanization as well as the history of colonialism that dominated the growth of the port city of Dar es Salaam, the national development policy took rural development as its primary goal. Nyerere wanted to obviate the historical stages of capital-intensive industrialization:

A group of families will live together in a village, and will work together on a common farm for their common benefit. Their houses will be the ones they build for themselves out of their resources; their farm will be owned jointly, and its produce will be their joint property. The activities of the village, and the type of production they undertake as well as the distribution of crops and other good they produce, will all be determined by the village members themselves. For the land will be 'our land' to all the members of the village; the crops will be 'our crops'; the common herd of animals will be 'our herd.' In other words, we shall have an up-to-date, and larger version of the traditional African family. (Nyerere 1968, 405-6)

Part of Nyerere's national project was the expansion of the notion of the family, and the space that the family occupied, to a national level. If the traditional Tanzanian family was, as Nyerere emphatically asserted, necessarily socialist and based on communal values, then by expanding this notion to the process of modernization through rural development he attempted to preserve traditional space within a modern context. However, even if traditional African communities were based on socialist principles of communal living and mutual benefit, the concept of joint ownership of space and goods signaled an attempt to move into a Foucauldian modern episteme—in short, a rationalization of space. Joint ownership of land, and implicitly the crops and livestock sustained by this land, meant that the supremely modern notion of a legal system had inserted itself into the everyday lives of Tanzanians. Although collective land ownership was diametrically opposed to the capitalist notion of a ruling class that controls the means of production, there remained the necessary codification of space and its relationship to the human. Space was no longer conceived of in “premodern” terms of passing down territory from one generation to the next; rather, in order to efficiently extract adequate agricultural production for everyone's needs from the natural resources of the country, the legal notion of joint ownership of land was necessary. Here, Nyerere attempted to skip over the commodification of land, labor, and money that Polanyi debunked in *The Great Transformation*. The social fabric, namely the notion of a “traditional African family,” had not only to be preserved, but also expanded entirely outside of the market mechanism. This top-down and directive-oriented policy style became increasingly problematic as the TANU began promoting the collective relocation of Tanzanian peasants as a product of *ujamaa*.

If the Arusha Declaration and the principles of *ujamaa* are primarily focused on the elimination of an urban rural divide, the promotion of a collective notion of agriculture, and a

new notion of the “extended traditional family” that would be applied to all members of the village, how does the creation of a new urban space correspond with the rural bias of these policies? In a promotional publication for the development of Dodoma put out by the Capital Development Authority (CDA) in 1975, the TANU administration wrote:

[The Mwanza Regional Executive committee of TANU] reiterated the arguments of previous years—Dodoma’s central position in the country at the hub of a national communications network, and the spur that would be given to development of the Dodoma Region. They emphasised the benefits of a national capital set at the heart of Tanzani’s ujamaa endeavour and of the close two-way communication between the people and the government that would result. (CDA 1975, 48)

The push to move the capital from Dar es Salaam to Dodoma corresponded with Nyerere’s vision because it embodied this new conception of time and space within socialist modernity. The geographic centrality of Dodoma spatially would have moved the political, cultural, and communicative hub of the nation from the coastal periphery into the heart of the country. The city’s proximity to all regions of the nation would have transformed it into a virtual crossroads of industrialization, agricultural development, and commercial transportation. Although the importance of speeding up communication and the transportation of goods and people was a goal of this new capital, the planned move was not a response to some market mechanism. The government, by moving to the center of the country, would ostensibly have been closer to the people, and a more productive dialogue concerning their needs would have developed. In Polanyi’s terms, the social fabric was to be preserved at the expense of capital turnover and the

creation of surplus value. The urban and coastal bias of keeping the capital at Dar es Salaam would, according to Nyerere, perpetuate not only the colonial economic structure, but also entrench neocolonialism and its complicity with global capitalism as the primary economic mode of production.

Dodoma: An Experiment in Socialist Space and Time

As paradoxical as the creation of an urban space seems in relation to the aforementioned principles of the Arusha doctrine and the consequent emphasis on agriculture and rural development, the new capital of Dodoma was meant to be the ultimate manifestation of *ujamaa*. Conklin and Rossant (1981, vii-ix) described Dodoma as “a real *community*; it should have all the life and warmth of a Tanzanian village square...The Capital Centre should not imitate skyscraper cities of Europe and North America...Instead the Capital should be composed of horizontal buildings related to the landscape and the habits and desires of the people.” In an eight-volume master plan published by the Capital Development Authority (1976) in conjunction with a Canadian consulting company, the new capital city of Dodoma was to be “people-centered” in that there would not be the high-rises styled after Western models of capital development, but rather many open spaces and buildings that would blend into the landscape and the day-to-day lives of its inhabitants. The emphasis, in terms of transportation, was less on private cars and more on buses, cyclists, and pedestrians. In many respects the architects of this new socialist urban utopia felt they were on the verge of revolutionizing the space and time of Tanzanian existence and living.

The *National Capital Master Plan* for Dodoma detailed not only the planned construction of residential units, but also transportation infrastructure, the National Capital Center that would house TANU administration offices, urban renewal of the existing city of Dodoma, population growth estimates, agricultural production, as well as the capital's projected impact on the surrounding region. In short, the exhaustive quantifying of labor and resources in order to better develop the region within the socialist framework was the Tanzanian attempt to embody what Foucault would call the transition from a classical episteme to a modern one via the rise of *homo economicus*. However, this *homo economicus* was conceived of in a different way than the capitalist one of modern Europe:

The city must provide its residents with a good quality of life and it should be an agreeable and acceptable human settlement, an emerging inland metropolis and a gracefully modern and functional Capital. Therefore, the city shall avoid the mistakes of colonial planning which are evident in Tanzania's present towns. Also, it shall avoid the mistakes of overcrowding, pollution, traffic congestion and long journeys to work, which are commonly found in the old cities of the industrialized countries. (Capital 1976a, 1)

The urban planning of Dodoma, at least in theory, was an explicit rejection of the previous models of capitalist development of Europe and the West in general. The project of modernity, as stated above, was a project diametrically opposed to capitalist modernity and the rise of urban problems that result when the social fabric is dominated by the market mechanism. Dar es Salaam was rejected as a model because it had been compromised by the project of colonialism in Tanzania. Industrialization for Dodoma meant a socialization of land and resources in order to

improve the overall quality of life of the city's population—not to extract as much surplus value as possible from the region. In order to accomplish this, the master plan set out to rationalize space and time within a socialist context.

The TANU viewed the Dodoma national capital project as the culmination of Nyerere's philosophy of *ujamaa* because it set out to explicitly retain what Nyerere called traditional African socialism within an urban and necessarily modern context. Of primary importance to this urban village were the residential communities and their infrastructure. The project set itself up in a tiered format: "An urban concept, consisting of tiers of communities, organized around a busway system, with decentralized employment and industrial areas and a strong open space system was developed for each of the three sites" (Capital 1976a, 3). Instead of the Western model that emphasized a downtown district that would serve as a financial and industrial center, Dodoma's relationship between living spaces and working spaces was decentralized. The decentralization of work meant that in order to cut down on long commute times, traffic congestion, and the overall grind of modern capitalist living, the social fabric and the consequent proximity to work was given priority. For the TANU, this attempt to prevent social dislocation that gave rise to the vast urban migration within a capitalist mode of urbanization and industrialization was in fact a preservation of tradition village life in Tanzania. It what follows I will discuss the conception of the residential communities, the transportation system, the National Capital Centre, as well as the urban space's relationship with agriculture, industry, and the greater Dodoma region.

At the heart of the Dodoma master plan was the ten-house cell structure, which was ostensibly modeled upon Tanzanian village life. The goal of this particular housing structure

was to maintain the open spaces of rural areas through what the Arusha Declaration outlined as the philosophy of self-reliance:

The Cell is the smallest unit, at the grass-roots level. It consists of the people living in a group of ten houses, under a Cell leader, who is a TANU member. The 10-house Cell is designed so that the people will meet and know each other and will share the responsibility of resolving each other's problems and of ensuring the implementation of the policies of Socialism and Self-Reliance in their daily lives. (Capital 1976a, 14)

The Cells thus served a dual purpose of not only maintaining the social fabric of traditional African village life, but also promoting the institutionalization of these values via the ideology of socialism and self-reliance. The ten-house cell, as a site for the inculcation of socialist values, meant that it was conceived of as the nexus between theory and praxis in modern socialist Tanzania. Here, the traditional *space* of Tanzanian village life was supposedly preserved even through the institutionalization of these values by a socialist government. This notion of institutionalization is key to the understanding of the socialist rationalization of space and time. What was previously conceived of as a “natural” indigenous communal structure of village life was codified into a government policy that would then be promoted wholesale as a boilerplate for modern Tanzanian society. Within this codification lay the transition to the modern *episteme* and the necessity of quantifying, mapping, and analyzing population, territory, and resources via their relationship to the human.¹

The residential community prototype was divided into quadrants, with a center that would house employment, commercial, community, and post-primary education facilities (see

Figures 1 and 2). The goal was to have a residential population whose working, social, and education needs would be completely contained within a circular structure. The very farthest a person could live from the commercial and educational center was one kilometer, or as the plan stated, “10 minutes walking time” from the bus stop. The emphasis on this community being entirely within walkable limits highlights how the pedestrian-oriented nature of the traditional village structure could be preserved within modernity, in contrast to Harvey’s notion that within capitalist models time annihilates space. A major arterial road would bifurcate the community, with a bus stop at the very center of the structure. Within this socialist rationalization of space, the problem of density was dealt with through an emphasis on open spaces throughout the community (see Figure 3). If urban density can be read as a product of a compression of space and time within a capitalist framework, in this socialist model open spaces were worked into the overall structure in a kind of Arcadian ideal. The residential communities were not supposed to annihilate the natural space, but complement it through a preservation of natural scenery and a rejection of the overcrowding so common in Western cities.

The four neighborhoods that made up the residential community prototype were connected via a network of pedestrian and bicycle walkways, creating, as the plan stated, “a green movement corridor through each community” (Capital 1976a, 30). Because each residential community was conceived of as a self-sufficient enclosure, all aspects of urban life could take place without massive population displacement and alienation of other urban plans: “Each neighbourhood is a residential area containing a range of facilities, such as three primary schools with nurseries, sports and playgrounds, small shops or dukas, religious buildings and so on. A comprehensive open space system permeates all parts of the neighbourhood, ensuring that all dwellings are very closely related to the land” (Capital 1976a, 30). Each residential

community was designed to be small in comparison to other urban models, resulting in about eighty to ninety persons per hectare. According to the planners, this enclosed space would produce village-like identity, resisting the urban sprawl that consumed what the planners called individual identity.

Each of these enclosed residential communities would be connected via a public transportation system that would spread out like a network, taking into account the topographic variables of each part of the region (see Figure 4). They planned on having a central city or “A” center, a sub-city or “B” center, and the community or “C” center. Because of the emphasis on collectivization of communities, the planning community envisaged an urban space centered around public transportation instead of private car ownership:

Residential communities and work places are linked by a public transit line to form a continuous loop. The conceptual plan which emerged from research in this area consists of a series of more or less elongated loops, the length of each being determined by the optimum relationships between travel time and the number of vehicles required to meet the estimated demand for movement. By letting pairs of loops meet as in a figure-of-eight, the necessary transfer points can be created. (Capital 1976a, 31)

In an interesting departure from the grid-like urban planning of many North American cities, the mapping of the urban space was visually striking (Figure 5). Within this loop structure the planners envisioned a growing circular network dominated by enclosed residential communities within open space. This circular makeup meant that there were open spaces between each circular residential area, whereas within a grid-like framework all space is utilized. In looking at

the larger development scheme, the notion of Dodoma as an embodiment of *ujamaa* became patent. Each of the residential communities existed as an enclosed village that was connected with other villages via the public transportation system. Space was visually represented in a drastically different way than the grid format—in fact, the very circular structure resisted the capitalist notion that time annihilates space through a compression of travel time and residential density.

In Figure 5, it is important to note that besides the residential community centers, industrial centers were also planned, as well as the national capital center. Although each community center was intended to be an enclosed circular structure, manufacturing and industrial centers would exist in a multipolar way across the city. The planning committee foresaw two types of industrial centers: heavy industry and light industry or manufacturing. The heavy industry would be housed in a Western industrial complex that was its own contained structure and would be separated from the rest of the city via a series of ridges running to the east and south (see Figure 6): “It is in an area of easy accessibility to cattle routes for the meat industry, and relates well to the areas from which raw materials will be extracted for the manufacture of construction materials. In terms of location for employment, it is well separated from other employment nodes on the busway” (Capital 1976b, 153). In terms of space, this heavy industrial center would be located on the far Western part of the city and well away from the National Capital Centre. This location was suitable because it was “down-wind from the prevailing east winds” (Capital 1976b, 152). Of primary importance for the heavy industrial center was that it be close to rail lines or highways due to its reliance on shipping and transportation, as well as removed from the center of town to minimize air pollution.

Interestingly, the planners proposed a small residential community in proximity to the heavy industrial neighborhood for “workers for essential services” (Capital 1976b, 153). The planners thought that heavy industry could be contained on the periphery, outside of the proposed space for the expansion of the town. Secondary industrial centers that were not “heavy or obnoxious” would be located in the sub-city commercial centers because they would generate high employment: “Manufacturing of goods for both local consumption and regional, national or international distribution would be undertaken in these establishments” (Capital 1976b, 154). Perhaps because of the focus on labor-intensive development rather than capital-intensive development, the heavy manufacturing base of Dodoma seems quite under-emphasized in favor of the elaborate conceptual planning of the residential communities and the National Capital Centre.

The importance of agriculture to the policy of *ujamaa* meant that the growth of Dodoma as an urban center would be founded upon a successful linking of the surrounding region’s agricultural production with the urban transportation system. The heavy industrial sector was intended to include a series of slaughterhouses that would be connected with the surrounding region’s cattle breeding. In addition to the facilitation of meat production, the amount of cash crops produced would be helped by the introduction of fertilizer and pesticides into the everyday practices of farmers. Interestingly, the committee wrote that large-scale irrigation was not a possibility for the Dodoma region—which seems problematic in that one of the major original objections to moving the capital from Dar es Salaam to Dodoma was that it did not receive very much rainfall. In order to support the new capital, the TANU proposed a modernization of agricultural production in three areas: first through an increase in labor time, second through the use of fertilizers and insecticides, and finally through mechanization and tractor power. The

planning committee deemed the second two areas of improvement capital intensive and felt that improved agricultural production should begin with increased labor time:

Traditional methods of cultivation apply over much of the impact region. This involves households clearing small and scattered plots of land, working them until the soil is exhausted and then moving on. These methods, especially when practised on land of broken and uneven form, has helped increased erosion problems, already serious through overgrazing. The settlement of the rural population in planned villages offers the opportunity for defining and regulating cultivated areas, improving crop husbandry and soil management and, at a later date, introducing fertilizer and irrigation techniques. At present, the use of fertilizer is sporadic and irrigation is often done by hand. (Capital 1976c, 17)

The surrounding Dodoma region went through intensive surveying in order to arrive at a suitable breakdown of resources that would support the growth of the urban center. Although the urban planning of Dodoma focused on integrating urban space into the natural landscape and minimizing pollution, the relationship between rural and urban space through agricultural production embodied the rationalization of space and time through an institutionalized effort to predict population and industrial growth based on an increased but balanced agricultural production.

Finally, the construction of the National Capital Centre, which would house the parliament and other government offices and ministries, was conceived of, in good socialist fashion, as a monument to the Tanzanian people. The plans for its construction stated that there

would be a stepped terrace scheme that fit the topography of the already existing land: “Major spaces should be created which take account of the Tanzanian use of space and movement. The NCC should have a strong sense of connection to the geography of Dodoma” (Capital 1976a, 6). Even in the conception of the administrative part of the city there was an attempt to fuse traditional notions of space that preserved natural formations and a rationalized modernity. The center would have a central mall, which would have a stepped terrace up to ministry buildings and different plazas that would house the monuments of the Uhuru Torch and the Ujamaa-Village Tree in the people’s square at the summit. The National Capital Centre would be completely free of vehicles, allowing for the free flow of pedestrians up and down the square (Figure 7). In addition, one of the main purposes of the National Capital Centre was to connect the old town of Dodoma with the new one via a commercial spine that doubled as a pedestrian walkway:

To the east a strong link to the National Stadium and Sports Complex within the grid system is accomplished by two vehicular streets and a major pedestrian way reaching from the Main Mall. To the west, reaching out from the intersection marked by the Capital’s most significant monument, the Uhuru Torch, is the commercial spine of Dodoma. This spine, like the ministerial area itself, is a pedestrian way.... the commercial spine will function as a the linking element between the existing town of Dodoma and the new Capital area. (Capital 1976a, 20)

The topographic height of the National Capital Centre meant that it would be visible from many parts of the city and embody Nyerere’s project of African socialism through its monuments

paying homage to abstract symbols of freedom and the people. The squares leading up to the Ujamaa-Village Tree were named *Land, People, Past, and Future*. This progression can be read as an attempt to construct a socialist modernity through a continuity between Tanzanian tradition and this modernized conception of government space. In this way, the entire project of Dodoma can be read as an attempt to actualize through architecture and urban planning the spatial and temporal exigencies of a *socialist high modernity*.

Conclusion

The vast majority of the projects discussed were never fully realized due to a number of problems. Not only had there been objections to Dodoma as a site for building a new national capital on the geographic grounds of not enough rainfall and agricultural production, but the attempt to move the bureaucratic and intellectual elites from the port city of Dar es Salaam proved too difficult. Although the parliament met for the first time in 1975 in Dodoma in the newly created government headquarters, most bureaucrats quickly went back to Dar es Salaam and operated out of sub-head offices in which almost all of the crucial decisions were made. In the early 1980s, the Capital Development Authority was rocked by a series of scandals that indicted many top officials with charges of embezzlement of funds. Herein lies the irony of the centralized government's attempt to create a decentralized capital in the heart of Tanzania in order to be "closer" to the people and support greater government transparency. In an article written in 1993 about the status of the national project J. M. Lusugga Kironde wrote,

The conceptualisation of the new capital city in terms of an idealised settlement to be implemented by a powerful development authority did not match the nation's economic

and social realities..... The result has been lopsided investment in Dodoma by the CDA, and continued entrenchment in Dar es Salaam by the various government bureaucracies. Lack of personal drive for a new capital from the nation's top leaders and the non-inclusion of the rest of the bureaucracy in the actual construction of the new capital isolated the CDA, which has seen its resources dwindle, and its status downgraded. (Kironde 1993, 452)

The lack of both political will and capital investment rendered the notion of labor-intensive development a pipe dream. Although it is easy to dismiss the attempt to build a new capital on the basis of socialist tenets as victim to the all-too-familiar story of corruption and what Frantz Fanon (1961) would call neocolonialism, the experience was at least an attempt to envisage a rationalization of space and time outside of the capitalist format. However, given the failure of the socialist project as a whole, as well as the top-down directive style of government embodied by a centralized socialist state, perhaps it is time to begin conceiving of space and time within a framework that not only avoids the subjugation of the social fabric to the market mechanism, but also condemns the cronyism of a faceless and unaccountable bureaucracy.

Endnotes

¹“Traditionally, the Tanzanian people relate to small communities and wide rural areas; a dense urban environment is in many ways alien to the national lifestyles and philosophies. The principle of self-reliance, as expressed in the Arusha Declaration, suggests that all families should live close to arable lands to enable them to grow at least part of their food requirements and, moreover, sociological considerations militate against cities of closely packed buildings and large paved areas” (Capital 15).

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² Please format references per Chicago Manual of Style (CMS). See my edits on first three, and examples in CMS, sections 16.4 and 16.90-120.

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