Urban Agriculture, Urban Planning and Urban Development in the Contemporary African City: A Case Study of the Lukhanyo Hub Project

Minor Dissertation presented in partial fulfilment of the requirements for the degree of Masters of Philosophy in Environment, Society and Sustainability

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Abstract

Historically, urban agriculture (UA) in the African context has been viewed as a food security and livelihood intervention. However, influenced primarily by discourses in the Global North, the framing of urban agriculture has shifted. Increasingly, advocacy from urban planners has shaped how UA “gets done”. Drawing on contemporary planning concepts, these practitioners have been innovating new forms of urban agriculture that connect UA to the built environment, such as vertical farming, rooftop gardens, and mixed-use urban “agrihoods”. However, scholars from the fields of Southern and African urbanism and critical urban planning, have raised concerns regarding the uncritical application of Northern theories, including those from urban planning, into the African context. Specifically, there is concern around planners’ lack of regard for the inherent characteristics of African cities as they attempt to world them into global cities.

Against this background, this dissertation examines the process behind attempts to integrate these new forms of urban agriculture into the African context through a case study of the Lukhanyo Hub project in Khayelitsha, Cape Town, South Africa. Focusing specifically on visions for urban agriculture at the Lukhanyo Hub, this dissertation asks, How do each of the actors articulate the purpose/function of urban agriculture? What is the spatiality of their ideal urban agriculture and why? and What is the role of the state, civil society organizations and community in that vision? To answer these questions, participants from the project development team, municipal government, and civil society organisations were engaged in in-depth interviews and participant observation. The results centred around four themes: creating a farmer network, urban agriculture and environmental education/training, economic or distribution model, and creating a contextualised but replicable Hub model. Several challenges and critiques emerged throughout the data collection process, which seemed to stall the development. The author argues that this forced the development team to take a more participatory, co-development approach. This should have positive effects on the future of the project, though further research will be required to say for certain.

Key terms: urban agriculture, urban planning, worlding, development, sustainability, Global North, Global South, Sub-Saharan Africa, African Urbanism, Southern Urbanism
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Chapter 1: Introduction

Rapid urbanization across the Global South has led to an emphasis on the urban landscape (Parnell, Crankshaw and Acuto, 2016). While urbanization is increasing across the globe, Africa is currently experiencing the most rapid rates of urban growth in the world (3.5% per year) which are expected to continue until at least 2050 (African Development Bank, 2012). This will place the urban population of the continent beyond 50% by the 2030s (Smit, 2015). This influx of urban migrants will put pressure on the infrastructure and services of African cities, where most of the urban growth is considered informal and 65% of the population already live in ‘slum’ conditions (African Development Bank, 2012). In the face of this rapid urban growth, African cities are pressed with the need to feed, house, and employ an ever-growing number of urban residents. The field of urban agriculture has become an increasingly popular option to address these urban challenges.

According to a widely cited report from the UNDP (1996), an estimated 800 million people are engaged in urban agriculture worldwide (see Battersby and Marshak, 2013; Mougeot 2005; FAO, 2017). Its popularity is arguably the result of “the long role it has played throughout human history of providing food to city populations after it was apparent that food supplies from rural and foreign sources were ‘insufficient, inadequate, unreliable and unaffordable’” (Sonnino, 2009, p. 427). In many ways, urban agriculture offers several potential benefits for urban residents, including: social benefits from increased social cohesion, environmental benefits from improved land use, and economic benefits from income generation (McClintock, 2008).

In recent years, the growth of urban agriculture as a field of interest has garnered attention from urban planners. Traditionally, urban planners have been considered disconnected from the food system (Pothukuchi and Kaufman, 2000). However, there has increasingly been recognition among urban planners that they have “the professional expertise and community-oriented and interdisciplinary perspectives that potentially could strengthen community food systems and food system planning” (Pothukuchi and Kaufman, 2000, p. 119). While not quite a concerted movement, there is an ever-growing group of urban planners who make up a “loose affiliation of single issue groups, where the common denominator is a commitment to a healthier and more sustainable food system” (Morgan, 2012, p. 1). Planners have reframed urban agriculture in contemporary built environment discourse around sustainable, eco-cities and contemporary urban concepts such as green infrastructure, mixed-use design, and sustainability.

Increasingly these concepts have been transported to cities in Africa, challenging previous conceptions of the purpose and potential of urban agriculture in the African context. Drawing on the literature from African and Southern urban theory, the author shows how previous attempts to modernize African cities have often been misguided and unsuccessful. Thus, African urban scholars argue it is necessary to reframe how the African city is envisioned and planned for. Moreover, planning for urban agriculture in Africa should engage with this discourse. As White says, “By regarding UA research as engagements with ‘actually existing metropolitan complexities
and ambitions’, one can begin to see UA, not as temporary pathology or universally beneficial, but rather, as an urban livelihood that produces and is produced by cities that are at once heterogeneously particular and… irreducibly global” (2017, p. 13).

How city space gets used, whose visions are enacted, how these visions are constructed are questions of vital importance - particularly amongst the rapid urbanisation of African cities. Therefore, understanding how urban agriculture gets done is imperative to determining whether or not it is a sustainable development practice that can meet the needs of the rapidly growing African urban population. This dissertation examines the process by which emerging forms of UA, conceptualised by planners in the Global North, are translated to the African context in an attempt to critically evaluate how cities are developed, and specifically whose visions and interests shape development, through the lens of urban agriculture. To achieve this aim, the author has conducted a case study of the Lukhanyo Hub in Khayelitsha, mixed-use development under construction in a rapidly developing township of Cape Town, South Africa. Focusing specifically on visions for urban agriculture at the Lukhanyo Hub, this dissertation asks,

1. How do each of the actors articulate the purpose/function of urban agriculture?
2. What is the spatiality of their ideal urban agriculture and why?
3. What is the role of the state, civil society organizations and community in that vision?

Chapter 1 states the research problem and the aims and objectives. Chapter 2 discusses the literature on urban agriculture in the African context, urban planning and urban agriculture, Southern and African urban theory, and finally critical urban planning – particularly in Africa. Chapter 3 details the methodology, explaining the research approach and methods employed in this study. In order to meet the aims of this research the author employed qualitative methods including semi-structured interviews and participant observation. Chapter 4 presents a background on the city of Cape Town and Khayelitsha, applying concepts and theory from Chapter 2 to the local Cape Town context. Chapter 5 provides a case study overview which introduces the Lukhanyo Hub and gives an overview of the key characteristics that make the project unique, before discussing the background, the impetus for and key elements of the original model, as well as the proposed timeline for the development. The development did not unfold according to the original timeline, which impacted the results discussed in Chapter 6. Chapter 7 explores several challenges and critiques that arose throughout the development and data collection processes, and Chapter 8 offers the steps forward proposed by the developer in response to these challenges and critiques.
Chapter 2. Literature Review

The beginning of this chapter presents a definition for urban agriculture. It then offers a discussion of the literature on UA in Sub-Saharan Africa, highlighting how the framing has shifted over time - beginning with a developmentalist framing focused on economic and environmental benefits to a community gardening framing that emphasizes social benefits. The next part of the chapter examines the relatively new role of urban planners in the food system, which has had a particular focus on UA. This section discusses how urban planners have approached urban agriculture, and where the literature predicts the field will go. In doing so, it offers several several examples of emerging UA concepts and designs that exemplify contemporary visions for sustainable built environments, and significantly shift the understanding of how UA gets done. Since a primary aim of the study is understanding how new forms of UA translate to the African context, this chapter also explores a discussion of Southern theory and African urban theory, which provides a theoretical background for understanding the particulars of the African urban environment. The following section explores the connection between African urbanism and (critical) urban planning. It focuses specifically on both a long-standing and emerging body of Southern research that explores the (often problematic) process of cities of the South incorporating elements of the built environment characteristic of cities in the Global North in order to lift themselves up in the global world order. Previous writings on UA have largely ignored urban theory – particularly African and Southern urban theory (though the chapter by White in WinklerPrins, 2017 is an indication that the literature is heading that way). Each of these distinct, but overlapping, literary works is useful for understanding how cities get developed and whose visions are put forward.

2.1 Defining Urban Agriculture (UA)

The term urban agriculture has several definitions and conceptions. This dissertation reviews several here which are of most importance to the understanding of UA for its purpose. The definition provided by Bailkey and Nasr states that urban agriculture is “the growing, processing and distributing of food and other products through intensive plant cultivation and animal husbandry in and around cities” (2000, p. 6). This definition builds on the commonly used definition from the United Nations Food and Agriculture Organization, which simply defines urban agriculture as “the growing of plants and the raising of animals within and around cities” (2017). The City of Cape Town’s Urban Agriculture Policy defines UA as, “the carrying out of agricultural activities in an urban set up,” and, the policy continues, “the production, processing, marketing and distribution of crops and animals and products from these in an urban environment using resources available in that urban area for the benefit largely of residents from that area” (2007, p. 3).

Simplistic definitions help to account for the fact that in reality UA activities are quite diverse. Urban agriculture can include small-scale, backyard (on-plot) urban crop and animal production (Mbiba, 2000; Tornaghi, 2014; FAO, 2017) or off-plot agriculture and animal
husbandry on public and private land (Freeman, 1991; Reuther and Dewar, 2007; Mbiba, 2000; Hardman and Larkham, 2014). In the Global North, conceptions of urban agriculture generally centred around community gardens (Battersby and Marshak, 2013; Golden, 2013) or allotment gardens as they are more frequently called in Europe (Dunn, 2010; Kettle, 2014). In recent years, urban agriculture, as defined above, has come to encompass several other diverse models for urban production, including teaching gardens at schools (Morris and Zidenburg-Cherr, 2002; Ratcliffe et al, 2009), organized garden projects in jails, hospitals or other clinical settings for “at-risk” populations (Pudup, 2008; George et al, 2015); urban tree farms (FAO, 2017), vertical farms (Despommier and Ellingsen 2008), rooftop farming (Sanyé-Mengual et al, 2015), hydroponics and aquaponics (Böhrt, 1994), and aquaculture (FAO, 2017), among other initiatives.

2.2 Framing Urban Agriculture in Sub-Saharan Africa

Urban agriculture has been framed differently in the Global North and South. The different framings represent distinct advocacy positions and visions for urban agriculture, which in turn affect how UA “gets done” in different places around the globe. The following sections analyse the literature on urban agriculture in both the Global North and South, highlighting the distinct framings of each. Recently, certain scholars have argued that viewing UA in distinct geographical contexts Northern (developed) vs. Southern (underdeveloped) attributes certain traits to UA based on assumptions of the world. As a result, they argue for a theorization of UA that creates a common theoretical framework, which aims to bridge the difference between the framing of UA in the Global North and Global South.

2.2.1 Urban Agriculture in Sub-Saharan Africa: UA as a Development Tool

The literature reveals that urban agriculture is widely practiced in many Sub-Saharan African countries and is common in other countries in the Global South (Dunn, 2010). In 1975, the World Food Conference highlighted food insecurity as a critical development challenge, which prompted a number of studies on urban agriculture throughout the Global South in the 1980s (Maxwell, 1995; 1999). Much of the earlier works on urban agriculture in Sub-Saharan Africa focused primarily on countries in East Africa such as Kenya, Tanzania, Uganda, and Cameroon in West Africa, due to the larger scale of urban production present in these countries (Lee-Smith, 2010; Dunn, 2010). Over time, works on urban agriculture in Southern Africa were also produced. As stated in section 2.1, these studies have concentrated on either on-plot or off-plot forms of urban agriculture (Mbiba, 2000). Urban agriculture research in the South, often driven by researchers from NGOs and international development agencies, mostly advocates for UA as a potentially powerful development tool (Zezza and Tasciotti, 2010; Battersby and Marshak, 2013).

Research has generally focused on the economic benefits of urban agriculture. From this viewpoint, UA is seen as a solution to food insecurity and a means to address urban
poverty by enhancing livelihood opportunities (Ellis and Sumberg, 1998; Nugent, 2001; Mougeot, 2006; Foeken, 2006; Simatele and Binns, 2008; Golden, 2013) either through subsistence farming or through the sale of produce (Battersby and Marshak, 2013). Some studies examined the health and nutritional aspects of urban food production, discussing the value increased food security would provide in supporting these areas (Maxwell, 1995; Prain and Lee-Smith, 2010). Others emphasized environmental factors, arguing that urban agriculture could address city waste management needs by using wastewater and solid waste for production (Smit and Nasr, 1992; Prain and Lee-Smith, 2010; FAO, 2017). A select number of studies, most notably Freeman (1991) and Foeken (2006), attempted to contend with socio-political and cultural facets of UA; however, they were largely overlooked compared to economic benefits, food security, and environmental impacts (Dunn, 2010).

The body of research has also highlighted several challenges for urban cultivators in African cities. The first challenge is insecure land tenure and inadequate land access (Tevera, 1996; Dreschel and Dongus, 2010; Van Averbeke, 2007; Crush et al, 2011). Second is inadequate policy support whereby institutional and legislative barriers to urban agriculture, have made cultivation difficult (Mbiba, 1994; Bowyer- Bower, 1997; Tevera, 1996; Mkambisi et al, 2010; Battersby and Marshak, 2013). Thirdly is a lack of resources (Yang et al, 2014). RUAF (2010) explain that this includes limited support services (extension services, access to credit, infrastructure development), limited access to productive resources, and lack of access to basic implements. Fourth and finally is a low degree of organisation amongst urban producers. Studies in Sub-Saharan Africa conclude that urban farmers often lack formal organization and thus have reduced decision-making capacity (RUAF-FSTT, n.d.). By forming a network, farmers can leverage many benefits, including educational, economic opportunities, and resource-based opportunities (Olivier, 2016).

2.2.2 Shifting the Framing of UA in SSA: Responding to Influences from the Global North

UA in the Global North has included allotment gardens in Europe (Dunn, 2010; Drescher, 2000(a)); Ebenezer Howard’s Garden City model (1965) [1898]; Mayor Pingree’s “potato patch” campaign in Detroit, Michigan (Colasanti et al, 2010; Community Gardens, 2017); the victory gardens that swelled across United States, Canada and Britain during the second World War (Miller, 2003, p. 400; Dunn, 2010; Battersby and Marshak, 2013); and the community vegetable gardens that dotted the United States and Europe beginning in the 1970s in response to the environmental crisis (Dunn, 2010). Overall there has been an emphasis on community gardens. As such, much of the research on UA in the Global North has focused on the social, cultural and political dynamics of urban agriculture (Nel, 2012). These studies claim that interaction and recreation with others leads to better social cohesion and a common cultural and social identity for urban residents (Wakefield, 2007; McClintock, 2008; Patel, 2008; Peng, 2015; Wakefield et al, 2007; Ackerman, 2017). Social cohesion is said to mitigate social problems like drugs and crime and assist disadvantaged groups (FAO, 2007); and increase
physical and mental health among participants (Wakefield et al, 2007). Another principal strand of this literature sees urban gardens as places of ‘counter-hegemonic democratic politics’ against the global corporate food regime (Dirlik and Prazniak, 2001 in Baker 2004, p. 306; Wekerle, 2004; McClintock, 2008).

Increasingly, literature produced on urban agriculture in the Global North has shaped the research coming out of the South. This has shifted the framing of UA in the South away from a development-slanted framework towards a community gardening framework informed by critical urban studies research (Battersby and Marshak, 2013; Dunn, 2010). In this framing UA is considered to be grassroots and bottom up, and is generally entrenched in a social justice discourse (WinklerPrins, 2017). This literature is much more focused on the social dimensions and benefits of urban agriculture than environmental or economic (Dunn, 2010). Particularly, on how UA empowers local communities and how it helps reengage the food system in community (WinklerPrins, 2017).

Several scholars have recently attempted to bridge the divide between Northern and Southern literature on urban agriculture (see Global Urban Agriculture e.d. WinklerPrins, 2017). McClintock argues that the recent state of global economic crisis has shifted the framing of urban agriculture - bringing the discourse on urban agriculture in the global north closer to that of the global south (2010). Now conversations around urban agriculture in the global north centre around urban sustainability and economic resilience rather than recreation and leisure (McClintock, 2010). He argues, this is even reflected in the fact that the term “urban agriculture is now favoured over “community gardening” (McClintock, 2010). Similarly, WinklerPrins attempts “… to help bridge the long-standing divide between discussion of urban agriculture in the Global North and the Global South and to demonstrate that today there are greater areas of overlap than there are differences both theoretically and substantively, and that research in either area can help inform research in the other” (2017, p. 5). She states that there are differences in the cited literature, semantics, and the approach between case materials; however, in practice the trends seem to be converging (WinklerPrins, 2017). Using Detroit as an example (see Colasanti et al, 2012; White, 2011; Safransky, 2014), she explains that in cities across America’s rust belt marginalised citizens are engaged in urban agriculture as a survivalist practice much those practised in the Global South (see Zezza and Tasciotti, 2012; Opitz et al, 2016). Conversely, with wealth increasing in the South, WinklerPrins argues that middle income women in Southern cities are gardening. She argues that the trend of UA in the GN to be seen as a method of urban sustainability reflects that in the GS where UA is considered a form of social resilience (WinklerPrins, 2017).

Influenced by Northern discourses, a newer body of literature investigating more nuanced benefits of urban agriculture has recently been produced in the Global South. This literature attempts to “interrogate the assumptions of why people farm in cities” (Battersby and Marshak,
Southern scholars, particularly in South Africa, have increasingly considered social dynamics in their research on urban agriculture. Employing qualitative approaches to research these studies, primarily in South Africa, take a more nuanced perspective on urban agriculture (see Battersby and Marshak, 2013; Slater, 2001; Olivier, 2016; Møller, 2005; Van Averbeke, 2007). The studies conclude that the social facets of urban agriculture were actually of more value than the food security or livelihood benefits of urban food production, contrary to the results of earlier literature.

For example, Slater’s (2001) work in Cape Town argued that UA is important to women of low-income households in ways less directly related to monetary gain. Women use UA in processes of empowerment, to establish social networks, to symbolise a sense of security and to encourage community development. Møller (2005) disputed the presumption that once institutional barriers were removed, more people would take up urban agriculture through her work in Grahamstown, South Africa (in Simatele and Binns 2008). She concluded that perceptions of urban agriculture as ‘old-fashioned and undesirable’ were larger impediments for young people. Additionally, Dunn (2010), Battersby and Marshak (2013), Olivier (2016) and Van Averbeke (2007) found that farmer’s in the Cape Flats experienced more social benefits than economic benefits. Similarly, an AFSUN survey of Cape Town concluded that middle and high income households, which had access to private, convertible land were more likely to participate in food production (7% and 10%, respectively) than low-income households (2%) (2013 in Battersby et al, 2014).

These studies have challenged traditional conceptions of urban agriculture in the African context, and contributed useful perspectives to push the discipline forward on how we understand urban agriculture in African cities, and in South Africa particularly. However, despite the positive information that arose from the literature after adopting this perspective, Battersby and Marshak (2013) caution that not all Northern discourses should be transported to the South. They argue that “Simply replacing one set of articulations and assumptions with another will do little to develop an understanding of why people farm and what benefits they derive” (2013, p. 10). McClintock also states, “an undifferentiated view of UA and its possibilities... may result in its prescription as a panacea for urban ills without consideration for the geographic particularities of a particular city” (2010, p. 1). White and Hamm build on this in their chapter of Global Urban Agriculture (e.d. WinklerPrins), stating, “in practical terms, putting UA to work means employing methods that ‘permit a degree of flexibility and innovation’ in very different types of data, as well as a high degree of contextual adaptability,” continuing later, “… there is danger in conferring sustainability credentials to UA without working out how and why it exists in particular places and whom it serves” (Evans and Jones, 2008)... it is necessary to qualify [UA] role in particular places and in relation to urban assemblages to determine its role in ‘actually existing sustainabilities’” (2017, p. 13). As new research emerges on the concept of urban agriculture in African cities, particularly those that
draw on Northern theories, it is important to be cognisant of the specific contexts and challenges of individual cities.

2.3. Urban Planning and Urban Agriculture

Pursuit of sustainable urban development has triggered a wider range of actors to begin claiming their place in urban food systems, and institutional efforts to accommodate and promote urban agriculture are gaining momentum (Golden 2013, p. 2). Historically, planners have ignored urban agriculture; however, rapid urbanization has led to a new emphasis on the urban landscape (Parnell, Crankshaw and Acuto, 2016). This, alongside food riots, and a general rise in critiques of the capitalized global food system (Sonnino, 2009) turned the attention of planners in the North and South to food systems (Pothukuchi and Kaufman, 2000). Among urban planners, there has been a recognition that urban planning has ignored the food system for too long despite the fact that they have “professional expertise and community-oriented and interdisciplinary perspectives that potentially could strengthen community food systems and food system planning” (Pothukuchi and Kaufman, 2000, p. 119). While not quite a concerted movement, there is an ever-growing group of urban planners who make up a “loose affiliation of single issue groups, where the common denominator is a commitment to a healthier and more sustainable food system” (Morgan, 2012, p. 1).

Despite a select few cases, such as Howard’s Garden City model cited earlier, planners have historically been detached from the food system, as food production was reserved for rural areas in conventional discourse. Advocates argue that “strategies to enable alternative urban food systems cannot be developed by those involved with the production and distribution aspects of food systems alone” (Komisar et al, 2009, p. 61). Proponents insist that design can be used to facilitate food production and incorporate urban agriculture into cities (Gorgolewski et al, 2011). They claim that merging urban agriculture and the built environment will lead to “visually striking and artistically interesting solutions that can create community and provide inhabitants with immediate access to fresh, healthful ingredients” (Gorgolewski et al, 2011). Similarly, others see urban agriculture as a vital element of design that can spur innovative developments, impart greenery into the city, and incorporate persons from different parts of society into production (Komisar et al, 2009). The end goal is to create new proposals for reimagined buildings and spaces that reflect a productive and resilient city (Lee-Smith, 2009).

Contemporary urban planners have attempted bridge the disconnect between food systems and city dwellers through innovative developments in urban agriculture (Nasr and Komisar, p. 47 in Viljoen and Wiskerke, 2012; Pothukuchi and Kaufman, 2000). Urban planning is increasingly shaping how urban agriculture gets done, and is framed in the literature. Planning theory can contribute significantly to our understanding of urban agriculture and its purpose in urban development. The contribution of urban planning offers UA a formalized, institutionalised place in the urban landscape.
While efforts are primarily being made in northern cities like Toronto and Bristol, which have employed strategies such as Food Policy Councils, efforts from the Milan Pact and the work in cities like Belo Horizonte in Brazil are promising efforts for the Global South (Morgan, 2010). Furthermore, outcomes from the 2012 Sustainable Food Planning Group conference (started by the APA and AESOP) offers promise for the field. The conference in Berlin produced a thought-provoking discussion that argued for two new kinds of food planning dialogues. The first between planners and civil social organizations within countries, and the second between planning organizations in Europe, North America, and Africa. The goal of the latter was to help food planning become both ‘locally embedded and globally engaged’ (Sonnino, 2009, p. 428).

Visions for these new types of urban agriculture work at the household, community, and “product” level (Lee-Smith, 2009, p. 44) and include incorporating “more community gardens, greenhouses tucked under raised highways, edible landscapes in front yards in place of resource-devouring lawns, living walls that bring greenery into dense city blocks, and productive green roofs on schools and large apartment blocks that can be tended and harvested by students and residents alike” (Gorgolewski et al, 2011). The rationalities behind these projects are often community-based, advocating for social inclusion and cultural context, community design, and environmental sustainability, which envisions UA as a part of green building and a path toward environmental and social resiliency (Lee-Smith, 2009; Komisar et al, 2009).

Urban agriculture has also been imagined in more large-scale urban planning initiatives through concepts such as Continuous Productive Urban Landscapes (CPULs) piloted by Viljoen et al. (2005). According to Lee-Smith, these could be applicable to diverse locations or circumstances (2009). CPULs are visionary concepts for urban design. According to Viljoen, CPULs integrate sustainability and design concepts in order to create socially, economically, and environmentally productive landscapes (2005). The core of this design focuses on “the creation of multi-functional open urban space networks, including urban agriculture, that complement and support the built environment” (Viljoen and Bohn, 2014, p. 12).

The majority of these projects remain conceptual. This is due in part to the fact that the role of architecture and design in urban agriculture is a new area of study (Lee-Smith, 2009; Gorgolewski et al, 2011). However, according to Nasr and Komisar, “Food and agriculture are fast gaining recognition as legitimate areas of both planning and design through research, university teaching, design competitions and awareness by professions, but their integration into everyday practice of planners and designers is lagging” (in Viljoen and Wiskerke, 2012). The following section offers some conceptual and realized examples of these new forms of urban agriculture around the world.
2.3.1 Examples of New Forms of Urban Agriculture

In this section, three examples of new forms of urban agriculture in London, Singapore, and Detroit, MI, USA are discussed. These designs highlight several of the elements discussed in the literature, including: international input; links to “green” infrastructure; a focus on multi/interdisciplinary and mixed-use; and discussions with community and involving the public. The last example is arguably the most similar to the Lukhanyo Hub given its emphasis on mixed-use design and a community centre, as well as its location in an urban environment more contextually similar to Khayelitsha than Singapore or London.

*Singapore: Sky Greens and Gardens by the Bay*

Singapore presents an interesting spatial context as an island city-state with significant emphasis placed on being a global financial capital (OVEC, 2016). Given the population density and commercial focus of the island, Singapore was importing over 90% of its food at one point (AVA, 2015). In an effort to be more self-sustainable, the city-state began incorporating elements of food production and greenspace (Graham, 2013). One such project is Sky Greens, Singapore’s first vertical farm, comprised of a group of 120 30-foot towers that grow leafy greens in an innovative method called “A-Go-Gro Vertical Farming” as shown in Figure 1 (Graham, 2013).

![Sky Greens Vertical Farm, Singapore](West Coast Seeds 2013)

Gardens by the Bay is an extensive network of urban gardens in Singapore. Created by a multidisciplinary team of local and international experts in landscape design, horticulture, and
plant health, among others, the gardens are meant to “green” the city and guide it towards a “vision to be a world of gardens for all to own, enjoy and cherish” (Gardens by the Bay, n.d.). The gardens are most widely known for the bromeliad, orchid and fern-covered 100-foot concrete “supertrees” shown in Figure 2, which cover 250 acres of the city (Gardens by the Bay, n.d.). The gardens have received many accolades and awards, and host a large number of visitors each year (Gardens by the Bay, n.d.).

Figure 2: Supertrees, Gardens by the Bay (Grant Associates, 2013)

Skyfarm

As a Milan Expo Project, Skyfarm aims are to present a solution to the global food crisis (RSH+P, 2014). Advocates of Skyfarm argue it could be the future of urban agriculture (Design Indaba 2016). Designed by London architecture firm Rogers, Stirk Harbour + Partners, the vertical farming towers, which takes the form of a scalable hyperboloid shape as shown in Figure 3, would serve as an alternative to traditional rural farming (RSH+P, 2014). The inside of Skyfarm consists of a hub of various farming techniques, from soil-based agriculture to aquaponics (Design Indaba, 2016). Furthermore, Skyfarm is a multipurpose space that offers the public facilities for education about urban farming, and a fresh food market or restaurant at the base of the tower with green infrastructure such as wind turbines and water tanks for irrigation at the top (RSH+P, 2014). The designers have chosen to make the structure out of woven bamboo for its green benefits, such as solar exposure and water distribution, and its ability to “adapt to different climates and scale up or down” (RSH+P, 2014, n.p.).
Urban Agrihood: Detroit, MI

Labelled as “America’s First Sustainable Urban Agri-hood” the Agrihood currently being designed by the Michigan Urban Farming Initiative (MUFI) presents an alternative neighbourhood growth model that “positions agriculture as the centrepiece of a mixed-use urban development” (Perriard, 2016, n.p.). Piloted by MUFI, with sponsorships from BASF, General Motors, Herman Miller, environmental firm Green Standards, and architectural design and construction firm Integrity Building Group of Detroit, the plans were recently presented at the Sustainable Brands summit in Detroit in May 2017. Tyson Gersh, head of MUFI said, this project will be “a showcase of sustainability and materials” (3BL Media, 2017).

Capitalizing on the amount of vacant land available in the city, this development will transform three acres of land into a two-acre urban garden (which is anticipated to feed 2,000 local homes), a 200-tree fruit orchard, and a children’s sensory garden (Michigan Urban Farming Initiative, 2017). The site also includes a three-story vacant building that will be repurposed into Community Resource Centre (CRC) as shown in Figure 4 (Michigan Urban Farming Initiative, 2017). The CRC will offer educational programs, event and meeting space, two commercial kitchens and a cafe to create and sell value-added products (Michigan Urban Farming Initiative, 2017). Gersh stated, “This is part of a larger trend occurring across the country in which people are redefining what life in the urban environment looks like. We provide a unique offering and attraction to people who want to live in interesting spaces with a mix of residential, commercial, transit, and agriculture” (Perriard, 2016, n.p.). Agrihoods, which have previously been confined to the suburbs, aim to link people to their food system, tackle food insecurity, solve community problems, and offer people a greater sense of community and happiness, creating more sustainability for cities, and improving our food system (The Food Revolution Network, 2016).
However, some have criticised these developments for “greenwashing” development in attempts to make profits from otherwise marginal land (Erbentraut, 2015).

Figure 4: Urban Agrihood, Detroit, MI (Michigan Urban Farming Initiative 2017)


The term urban agriculture is at once broken down into two words “urban” and “agriculture”. While urban agriculture has an obvious connection to the urban landscape in which it exists, there is little research on urban agriculture in SSA that explores Southern urban theory or African urbanism. Southern and African urban theory (which have roots in postcolonial theory) are propitious theoretical frameworks for understanding how urban agriculture is enacted in the context of African cities. As White and Hamm’s recent paper argues, “Postcolonial and critical urban planning theory offer promising theoretical frames for putting UA to work by improving researchers ability to connect it to “the assemblages of urban life and its multiple flows” (2017, p. 13). This section first briefly articulates the arguments behind Southern urban theory and then African urban theory. It then focuses on critical urban planning research on African cities, illustrating how theoretical developments from this field can inform urban planning and urban agriculture in the African context.

2.4.1 Southern Urban Theory

Southern urban theory, or Southern urbanism, is a loose body of literature that grapples with theory and knowledge production from the Global South in relation to the Global North,
arguing that general theory originating in the Global North has a limited application in the contexts of the Global South (Robinson, 2006; Connell, 2007; Comaroff and Comaroff, 2012). This theory is based on the work of a diverse group of people who identify as southern urbanists. These scholars hail from fields as broad as urban studies, sociology, anthropology, development, urban planning, gender studies, and geography. The work of Southern theorists is closely related to and often draws on themes and concepts from postcolonial theory and discussions of the subaltern. The literature is a critique of contemporary conceptions of cities, urbanisation, and theory production that has centred around a particular geography and characterisation of urbanity; including approaches such as neoliberal urbanism and the world cities paradigm (Ernston, 2013).

Southern theory as articulated by Connell (2007) is not based on the idea that Northern theory is irrelevant, or that theory developed in the South is only relevant to the South. It also does not attempt to create a dichotomy between Northern and Southern theory (Connell 2007). Rather, the goal is to increase the array of sites that are allowed to generate theory - not only as failed examples, but as examples of different forms of urban conditions (Connell 2007). The primary argument made is that contemporary urban theory may not (adequately) apply to the Global South and as a result, “scholars should seek to disrupt the current ‘north-south axis of power’ that leads to northern intellectual hegemony (Mabin, 2013) - Europe may be provincialized (Chakrabarty), Africa may be worlded (Mbembe)” (Parnell and Oldfield, 2014, p. 24).

The term ‘provincializing’ is part of a discourse that seeks to disrupt the paradigm of capitalist transition in non-Western countries being shaped by the notion that Europe is the origin of modernity (Chakrabarty, 2000). Chakrabarty argues that measuring growth in the Global South against such standards inaccurately deems cities in these world-regions incomplete or lacking (2000). The term ‘provincializing’ is rooted in postcolonial scholarship and seeks to include more voices into the process of theory-making (Chakrabarty 2000). To provincialize is to “question taken-for-granted ideas and broaden the scope for theorizing with more urban experiences in mind” (Lawhon et al 2013, p. 17). Chakrabarty argues “thought is related to place” and therefore, universalist concepts of modernity (justice, democracy and citizenship), “encounter pre-existing concepts, categories, institutions and practices through which they get translated and configured differently” (Chakrabarty, 2000, p. 114). Provincializing Europe ‘globalizes European thought’ in order to explore how it may be challenged “for and from the margins” (Chakrabarty, 2000, p. 1).

Similar to provincializing is the term ‘worlding’. Coined in 1927 by Martin Heidegger, ‘worlding’ was used to represent the idea of “being in the world” and signifies something ongoing and generative, and therefore not reducible to a philosophical state or scientific materiality (Srnicek and Woodard, 1998). According to Stewart (2014), worlding is a way of approaching wholes, systems, networks or culture in ways that account for emergence, the assemblage of disparate entities, and the experience or situation of being “in” something. In urban theory, the analytical practice of ‘worlding’ is most often related to the global cities and
world cities frameworks (Robinson, 2002) which view the world in a hierarchy of cities (Neumann and Hull, 2011, p. 36). However, such frameworks fail to account for histories of colonialism and imperialism. As such, when scholars like Membe, Roy, and others discuss worlding, they are really discussing alternative forms of worlding, which is to say ‘alternative modernities that produce multiple urban sites and experiences that can speak to and inform one’s analysis of other places’ (Roy, 2011, p. 828 in WinklerPrins, 2017).

The immense body of work being done in various parts of the world indicates that there are many other ways of ‘worlding’ cities. For example, theorists of ‘transnational urbanism’ are examining the ways in which gentrification and urban redevelopment are embedded in global property markets (Olds, 2001). Others are studying ‘transnationalism from below’, the practices and strategies of migrants as they cross borders and produce space (Smith, 2001). Particularly significant is the work of Jacobs (1996) on post-colonial urbanism. Jacobs interprets global cities such as London as ‘postcolonial’ cities and shows how London’s colonial past shapes its contemporary spaces – in ‘ethnic enclaves’, in struggles over urban redevelopment, and in negotiations over cultural identity. Similarly, Comaroff and Comaroff (2012) make the argument that northern cities might actually be “evolving into the kind of cities normally associated with the Global South” (2012). A ‘worlding’ of cities must now recognize multiple cores and peripheries, and has to note the emergence of core–periphery structures within the Global South. Moving away from simple core–periphery models of globalized urbanization, one is left with what Ong (1999) terms ‘differentiated zones of sovereignty’.

Building on these insights, Southern urbanists have challenged the notion common in urban studies that Southern cities are exceptions to theoretical expectations and norms—and therefore are failed cities. Instead, these authors seek to establish a new frame through which to understand urbanism (Roy, 2009; Robinson, 2006; Robinson, 2011). In addition to different historical contexts, current conditions, and the situatedness and subjectivity of knowledge, different regions have developed different intellectual traditions, theoretical lenses and topics of analysis regarding urban theory, referred to as ‘conceptual vectors’ by Roy (2009). These differences are important, and can help build a diversified urban theory that can help us generalize without being dominated by Northern experience.

White states, “Amongst critical planning theorist who bring southern perspectives to debates about the production of urban space, there is a unifying recognition that before cities can be remade to serve the goals and aspirations of their inhabitants, we must remake them in our own imaginations” (2017, p. 13). This is particularly critical in African cities where visions of modernity, what it means to be a world class city, and how city spaces should be planned have been greatly shaped by northern development ideals. African Urbanism or African Urban Theory builds on Southern Urbanism to make the claim that there are unique particularities of the cities of Africa, which complicate the uncritical application of western/northern theories. The following section dives more deeply into the theory of African Urbanism, which will later be
used to contextualise the discussion of urban planning and urban agriculture in contemporary African cities.

2.4.2 African Urbanism

Cities in Africa are experiencing the most rapid rates of urbanization in the world at 3.5% per year (AfDB, 2012), which is predicted to be twice as fast as the western experience in the 19th and 20th centuries (African Economic Outlook, 2016). Today, the majority of inhabitants are still living in rural areas, but it is estimated that by 2020, 24 of the world’s 30 fastest growing cities will be in Africa (FAO, 2012) and by 2030, over half of the African population will live in urban areas (Parnell et al, 2009). According to the African Economic Outlook (AEO), urbanization is explained through a dual economy model (2016). The Western Urbanisation process, defined by a structural transformation of the economy, is represented by a surplus of labour from the agricultural sector moving to the expanding industrial sector in urbanized areas (AEO, 2016). On the other hand, in Africa, urbanisation is happening without the structural transformation, meaning, people are moving to urban areas without an increasing industrial sector (AEO, 2016).

This process of rapid urbanization is being experienced alongside chronic urban problems of poverty, inadequate service delivery, and other development needs (AfDB, 2012). Thus, the rapidly growing African urban population has not been accompanied by a comparable growth in infrastructure and public investment. In fact, most of this growth has been informal, with over 60% of African urban dwellers living in informal settlements, or what are labelled as “slum” conditions (UN-Habitat, 2010). This is likely to increase as almost all urban growth continues to be informal (Pieterse, 2011). Informal urban processes therefore have a particularly high degree of visibility and centrality in the shaping of African ‘cityness’ and urban spatial development (Parnell et al, 2009). However, in Northern urban studies, informality is considered problematic; informal work is bad for the economy as it doesn’t regenerate income to the government, and informal settlements are seen as the opposite of good urban planning (Parnell, 2016).

In light of such circumstances, the African city is often characterized by a lack of urban planning and infrastructure, informality, disorganisation, and crisis. Pieterse says, "Whatever way one looks at the phenomenon of urbanisation in Africa, it is impossible not to be alarmed by the cumulative dynamic of exclusion, impoverishment and deepening inequality that is in stark evidence" (2011, p. 9). While urban informality is not a trait that is exclusive to Sub-Saharan African cities, the expansiveness of the informal sector in cities across the continent is considered a complex phenomenon that, “is particularly conspicuous in Africa” (Hansen and Vaa, 2004, p. 8). As such, “there is a need to more fully engage with informality as a mode of development that is likely to characterize the emergence and workings of cities well into the future” (White, 2017).
Preston claims, “African cities are used as clear-cut examples of failure, chaos and disorder within the hierarchical world city system” (2007, p. 34). In fact, according to Preston (2007), nearly all African cities fail to meet Friedmann’s (1986) world cities criteria. Friedmann (1986) states that “the form and extent of a city’s integration with the world economy, and the functions assigned to the city in the new spatial division of labour, will be decisive for any structural changes occurring within it” (in Preston 2007, p. 28). Furthermore, world cities have “global control functions” and are “used by global capital as ‘basing point’ in the spatial organisation and articulation of production and markets” (Friedmann, 1986 in Preston, 2007, p. 28). Preston argues that while there are regional ‘base points’ of capital on the continent, these cities are still considered minor players in the world system (2007). This phenomenon prioritises circuits of financial and informational capital but ignores other circuitries of the world economy; therefore, it is unsurprising that cities that don’t meet the global/world cities criteria fall “off the map” and are considered structurally irrelevant to the functioning of economic globalization (Robinson, 2002, 2006; Parnell and Oldfield, 2014). Murray argues that no African cities currently meet this criteria, though South African cities may come close (2013). Despite, or perhaps in light of, the failure of African cities to meet such criteria, there is a constant desire especially among planners for African cities to be moulded into global/world class cities.

As such, there is a growing literature contesting the general applicability of western urban theories, such as the world cities framework, on African cities (see Connell, Robinson, Comaroff and Comaroff, etc). They argue there is a need for a more nuanced way of looking at the African city, that moves past portrayals of dysfunctional, underachieving, underdeveloped world cities and victimizations of the urban poor (Murray, 2013). As Myers put it "The sheer enumeration of how bad slums are … does not tell us what specific cities are capable of" (2011, p. 13). Or, as Pieterse says, the informal city is the African city (2011, p. 7). According to Chabal and Daloz, it may be useful to look at the ‘disorder in African cities as “a different order, the outcome of different rationalities and causalities,” they continue, “It appears as disorder only because most paradigms are based on a notion of a form of social, economic, and political development, which reflects the experience of western societies” (1999, p. 155). Therefore, as White claims, in order to reimagine African cities, we need to first understand how they function (2017).

Most African Urbanist scholars believe that there are traits that are unique to Africa, which justify the field. There is obviously a wide variation in the histories, cultures and materialities of different African cities, but nonetheless there is a general consensus among scholars of the utility of considering African cities as a loosely bounded theoretical construct (Pieterse, 2011; Lawhon et al, 2013; Myers, 2011; Roy, 2009). In constructing a Southern or African urban theory, it is important to consider Roy (2009) who suggests the South is not homogenous and thus the different theoretical traditions that exist throughout various parts of the Global South can and should contribute to the development of theory from the South. According to Lawhon et al, “this frames the ‘global South’ as an epistemological location— rather than a
geographical container—through which a provincialization of dominating theory can be crafted” (2013, p. 507).

Re-theorization is not about shifting epistemologies in order to view the city differently (Lawhon et al, 2013). The base for theorization is ordinary practices of city-making such as how relations are formed and maintained, how the city is shaped to secure livelihoods, and how people scale themselves through networks to access resources and opportunities (Simone, 2004a; 2011). The argument is that this type of work will “reorient theory-making and stabilize a different image of the city—what it is (ontological difference), how it works (epistemological difference), whom it is for (moral), and how it can be changed (political project)” (Lawhon et al, 2013, p. 507). This kind of work requires the author to “situate research in context, describe before explaining, and avoiding the tendency to jump to policy recommendations” and “starting with examining everyday practices of African cities rather than starting with a theory of urbanization” (Lawhon et al, 2013, p. 507).

2.4.3 African Urbanism and Critical Urban Planning

Urban informality is one key characteristic of African urbanism that will influence the way planners understand and engage with food systems in African cities. Historically, urban planning has stood in stark contrast to the African reality of urban informality (Meyers and Murray, 2006). Shaped by the western notion of urban modernity, urban planning tends to embrace concepts of formal order (Watson, 2014). As a result, planners often fail to believe that this ideal can coexist with the ‘disorder’ of informality (Kamete, 2013). Yet, planners in African cities are beginning to question this binary and the need to extricate one from the other.

Geographer, Amin Kamete asserts that “the very configuration of urban governance and socio-economic systems in Sub-Saharan Africa renders informality inevitable and its eradication impossible” (2013, p. 17). Vanessa Watson, an urban planning professor from Cape Town, frequently claims that planning must try to account for what she deems the ‘interface’ the space that exists between formal and informal (2009). Watson, drawing on the work of postcolonial scholars, says that urban planning must adapt to planning in the specific circumstances of African cities in order to successfully plan them (Watson, 2014). It follows that the same must be true for food system planning on the continent.

Urban planning in Africa is also shaped by the shared colonial experience (Ernston et al, 2014). According to Preston, “The spatiality of African cities is based on built environments that are the legacy of colonialism and the physical manifestation, exploitation, and inequality inherent to the system. Yet, it is within these physical spaces that millions of Africans now try and survive. Therefore, it is necessary to look at the built environments of African cities and the way in which city planners continue to perpetuate these legacies to the possible detriment of African urban dwellers” (2007, p. 29). As Simon (1992) describes it, “the social production of urban form in the built environment reflected imported European value systems without embodying any significant local elements.” According to Simon, “The African city is a physical
manifestation of European colonialism with its innate hierarchies and inequalities intact. In the decades since independence, little has structurally changed within this built environment and capitalist values are still expressed in African cities’ formal planning, as “ultramodern or post-modern office blocks rise incongruously behind slum dwellings of wood, mud and galvanised metal sheets” (1992, p. 74).

Engaged in the process of ‘worlding’ described in the previous section, African urban planners continue to plan cities based on Western models with a focus on making the city hospitable to capital and investment, despite the realities of urban life. In an effort to “bolster national income and propel their urban settlements onto the global stage of ‘world-class’ cities” (Lindell et al, 2016, p. 5) African governments have increasingly given priority to large-scale ultra-modern urban projects that emulate successful projects from around the world and mould their cities to match the images of Dubai, Shanghai and Singapore (Mutiso, 2016; Watson, 2013(a)). Recognizing the lack of resources governments have, especially under mounting pressures of rapid urbanization, these projects are often public-private-partnerships driven by foreign investors who see Africa as the “last frontier” for international property development and seek to “build visionary new cities on what is perceived as empty land” (Watson 2013(a), p. 1). Currently, several of the peripheral spaces outside of Sub-Saharan Africa’s larger cities are currently being developed in this model, such as King City (Rendaveur, 2017) or Appolonia (Appolonia, 2017) near Accra, Hope City in Ghana (Vourlias, 2015; Mubarik, 2016), Eko Atlantic in Lagos (Eko Atlantic, 2017; Future Lagos, 2014; Onuoha, 2017) Konza Tech City in Nairobi (Konza City, 2017; L2B, 2017; Mutiso, 2016), Kigamboni New City in Dar es Salaam (Lindell et al, 2016; L2B, 2017), and La Cité du Fleuve in the Democratic Republic of Congo (La Cité du Fleuve, 2017). These cities highlight contemporary planning concepts such as mixed-use designs, a “live, work, play” mentality, sustainability, and (green) technology (Murray, 2013).

Critical scholars who have researched such “new-build” developments assert that they offer idealistic planning visions which aim to detach from the “dystopian” African city narrative (Davis, 2006; Murray, 2013). In their attempts to engage in visions of “elsewhere”, urban scholars argue that they enter a practice of “worlding” whereby cities are positioned in a “transnational flow of ideas and visions about how cities should be developed and governed” in relation to specific contexts and timeframes (Lindell et al, 2016, p. 9; Roy and Ong, 2011). These developers are guided by particular visions for order, style, and design that are taken from the Global North and applied into specific contexts within Africa as a means for “urban renewal and city improvement” (Lindell et al, 2016, p. 9). It is clear that most African cities, while attempting to emulate capitalist centres, often do not have the resources to do so, and in trying to do so, are perpetuating inequality and marginalising their own residents.

Several studies indicate that such “worlding practices” are often in tension with the realities of local residents (Lindell et al, 2016; Watson, 2013(a); Murray, 2013). For example,
in their study of the Kigamboni New City in Dar es Salaam, Lindell et al (2016) show that the urban vision underlying the New City project took shape without taking the different realities and desires of the local residents of Kigamboni into consideration, which ultimately led to a standstill in the development. Watson argues that,

“draped in the rhetoric of “smart cities” and “eco-cities”, these plans promise to modernize African cities and turn them into gateways for international investors and showpieces for ambitious politicians. Yet the realities of these cities stand in stark contrast to the glass-box towers, manicured lawns and water features on developers’ and architects’ websites. With the majority of urban populations living in deep poverty and with minimal urban services, the most likely outcome of these fantasy plans is a steady worsening of the marginalization and inequalities that already beset these cities” (2013(a), p. 1).

Critiques of these ‘new cities’ from both the North and South, are rooted in a long-running body of urban literature that problematizes Northern interventions in the Global South, and preferences place-based, or situated, participatory planning (Watson, 2014; Vandendriessche, 2012). According to the literature, there is a paradigm of development and planning theory and ideas from the North being transposed onto the South, with evidence presented ranging from Le Corbusier’s Chandigarh (Fitting, 2002; Bharne, 2010) to the arguably path-dependent ideologies put forward by multilateral institutions (Robbins, 2011). This literature claims that the Global South, including Sub-Saharan Africa, has experienced a long history of problematic Euro-centric development, which tends to ignore the lived, contextual realities of urban citizens (Watson, 2014).

Watson suggests that to avoid these problematic results there should be more participatory, place-based planning centred around co-production (Watson, 2014). Responding to decades of planning based on assumptions regarding urban contexts which do not fit the Global South (or even in some cases the Global North), this form of planning is place-based, or ‘situated’ and focuses on contextualizing planning to the locality (Watson, 2014). Planning this way moves away from the traditional emphasis on “aesthetics, efficiency, modernization and tools such as master planning and zoning” (Watson, 2009) towards a more nuanced understanding of the African city. Such processes view the role of practitioners as community support, not technical experts engaged in mutual learning, rather than acting as an all-knowing expert (Watson, 2014). When related to urban planning and agriculture, participatory processes should begin by being informal in nature then incorporate a wide variety of stakeholders, and they should seek to empower urban producers (Drescher, 2000 (b)). More strategic planning epistemologies can bridge the gap between planning and everyday realities in cities of the South (Roy, 2005).
Given the limited research on the role of planners in urban agriculture, particularly in Sub-Saharan Africa, this literature offers a contextual background for understanding how visions and ideals from the fields of urban planning, design, and architecture within the Global North engage with the African context. The literature reveals that generally such attempts have been met with critical engagement from scholars, who argue that such idealistic visions stand at odds with the lived realities of most African urban citizens. As a result, there has been a call for more participatory planning processes that actively engages the urban population in the development process. Investigating this process in varying capacities is imperative to understanding the future of development in African cities.

Chapter 3: Methodology

This chapter will provide the rationale and methodological details of this dissertation. The chapter begins by detailing the research approach used to meet the stated aims and objectives outlined in Chapter 1, the significance of which was demonstrated in Chapter 2: The Literature Review. This chapter then discusses the qualitative approach and case study methodology, providing justification for this methodology to the dissertation. This is followed by a detailed description of the data collection process, including a discussion of the two methods employed: participant observation and semi-structured interviews. This section is followed by a description of the data analysis process and a brief introduction to key themes in the data. Finally, the chapter describes potential limitations and ethical concerns that arose during this dissertation.

3.1 The Study Design

As stated in Chapter 1, the purpose of this dissertation is to document and critically evaluate the visions and rationalities employed in the development of the Lukhanyo Hub in order to add new knowledge to the growing field of research on urban agriculture in the African context. Responding to the literature on urban agriculture in South Africa, which highlights the value and added nuance offered by a qualitative, case-based approach, I determined that the most efficacious methodology to achieve the aims and objectives of this study was a qualitative research approach.

Qualitative research emphasizes the qualities of things, processes, and/or meanings, and is not based on experimentally examined or measured quantities. According to Denzin and Lincoln (1994), qualitative research is an analytical and practical pathway to a defined subject matter as well as a focus on processes and meanings happening naturally. Qualitative approaches, which generally involve the collection of broad narrative data, allow the researcher to gain insights into the phenomenon of interest (Hatch, 2002; Creswell, 2009). Specifically, it offers the researcher the ability to probe the participants for answers, and the opportunity to dive deeper into the opinions of the study participants (Wyse, 2011).
3.2 The Case Study Approach

According to Shuttleworth (2008), case studies offer an in-depth look at a particular situation, organization or entity, such as the Lukhanyo Hub, in order to reveal new knowledge about a research problem (Mills et al, 2010). Ritchie and Lewis (2003) see the primary defining features of a case study as being the “multiplicity of perspectives which are rooted in a specific context.” This is helpful in gaining insight into the varying perspectives of the participants during this research. Thomas explains that a case study methodology is particularly useful in situations where the researcher has “no control over the events as they unfold” (2010, p. 309). Sprain and Timpson (2012), state that “case-based approaches equip students to encounter complexity, manage uncertainty, and generate innovative strategies.” Haysom concludes that “the complexity of food insecurity and in particular, urban food insecurity, and the oversights of previous research, require research methods that align with this complexity” (2014, p. 82).

Bolstering the demand for this type of research, Watson and Agbola (2013 (b), n.p.) argue, “Case study research generates invaluable, nuanced teaching material – as well as important contributions to our knowledge of African cities… Many erroneous assumptions about African urbanization have gone unchallenged for decades. Case study work is a pre-eminent means of addressing the need to produce new knowledge relevant to practice, enhancing skills and competencies, and establishing values … systems and practices will not be reformed without changing the mind-sets of politicians, international donors and urban policymakers.”

The challenge for case researchers and analysers is not to draw grand theoretical conclusions from a single case. Case studies are useful in understanding a single ‘unit’ (individual, community, location) but do not necessarily lend themselves to the formulation of generalizations and universal theory (Rabkin, 2013). However, the purpose of this case study is not to create or disprove general theory, but to explore the manifestations of global trends through an investigation and in-depth look at one particular development.

3.3 Methods

3.3.1 Participant Observation

Participant observation was a critical method employed in this study. Participant observation is a method of data collection often employed in qualitative research (Kawulich, 2005). The purpose is to establish a strong rapport or sense of familiarity between the researcher and the study participants through in-depth involvement with the participants in their environment.
over a prolonged period of time (Spradley, 1980). This allows the researcher to obtain more
detailed and accurate information about the participants involved in the study (Thomas, 2010). In
this case the timeline was just over a year. Participant observation also allows the researcher the
opportunity to uncover possible discrepancies between what participants say and often believe
should happen, and what actually happens, which makes the data more accurate than if it were
obtained by more linear methods such as a one-time survey (DeWalt and DeWalt, 1998).

According to Howell (1972), participant observation occurs in four stages: establishing
rapport, immersing oneself in the field, recording data and observations, and consolidating the
information gathered. Therefore, the first step in this process was establishing rapport with the
lead developer. Initial conversations began through an e-mail exchange, and the author obtained
an invitation to the site. During preliminary site visits, the author was primarily an observer,
merely taking note of the site layout, dynamics, and other actors at the site. This was an
opportunity to make initial introductions with key participants in the project.

The participant observation arm of the project was primarily focused on the food garden
team of the Lukhanyo Hub. Over the course of the study, multiple observations were conducted
to obtain the best understanding of the site and the individuals involved. The site was visited first
in May 2016 to observe the landscape. In October 2017, the author began conducting participant
observations at weekly meetings for the urban agriculture team of the Lukhanyo Hub. These
meetings included the head farmer, the assistant farmer, the city liaison, the design support, and
occasionally the head of the project. The weekly meetings were strategy meetings held by the
UA team of the LH to discuss next steps regarding the school garden and larger development
objectives. The topics of the meetings ranged from who would purchase shade netting and
organise electricity to what how the team would strategically engage with the school in order to
convince them that the project was beneficial. The purpose of attending these meetings was to
establish rapport with the group members and also to gain insights into group dynamics, the
backgrounds of key stakeholders, and the perspectives of these stakeholders on urban agriculture
and the development process.

Another participant observation occurred during the charrette in January 2017, which
brought together nearly 30 participants from varying fields to discuss infrastructure at the
Lukhanyo Hub. During this process the author was able to engage with new actors who were
involved in the project and gain more insight into the role of actors from the built environment in
the project. The details are discussed in Chapter 5.

Notes were taken in a field notes journal, and special care was taken during the recording
of field notes to be discreet so as not to deter the participants from speaking freely (DeWalt and
DeWalt, 2002, p. 141; Russell and Harshbarger, 2002, p. 211). Reflective field notes were taken
after each observation to record any insights, intuitions, or broad themes (Labaree, 2009).
3.3.2 Semi-structured Interviews

The second method employed in this study were semi-structured interviews. The use of semi-structured interviews, allowed the author to gain insights into the intentions, opinions, and motivations of the stakeholders at the Lukhanyo Hub. A purposive sampling strategy was used to identify a total of 10 interviewees who were closely connected to the development of the Lukhanyo Hub garden in various capacities. The interviewees were from the central Lukhanyo Hub garden team: the lead developer, the project manager, the farmer, a landscape architecture student, a city planner, and a community organization member. One member of the team who was also involved in community organizations was unavailable for an interview, but was observed through participant observation. All members of the team were male. Three members of the team were white, three were black and one was coloured. Two additional interviewees were the founders of urban agriculture NGOs that operate in the Cape Flats areas surrounding Cape Town. Both are white: one female, one male. The first NGO focuses on wild or indigenous food, and the latter on creating anti-capitalist food production systems and empowerment programs. The final interviewee was a representative from the urban agriculture department at the city of Cape Town. A representative from the Department of Education, the principal of the school, and two other representatives from local NGOs were also contacted for interviews, but the author was unable to get a reply after several attempts. This potentially had a slight impact on the results, which is indicated in Chapters 6 and 7, and in 3.7 Study Limitations.

The racial history of racial segregation and colonisation, which is described in further detail in Chapter 4, and the gendered nature of urban agriculture (see Rakodi, 1985; Hovorka, 2005, 2006; White, 2017) make the demographic information quite significant. The gendered dynamics of the project were not considered significant enough to discuss in much detail here due to the limited scope of the project; however, the racial dynamics unfolded throughout the data collection process are discussed in the results. Potentially more important still, is the stakeholders existing relationship with Khayelitsha. Three of the team members were from Khayelitsha, one of whom was not available for an interview. The developer was from the United Kingdom, and the rest of the participants were from South Africa - most from other parts of Cape Town. Representing the entrenched racial segregation still present in South Africa, all of the team members from Khayelitsha were black, while the coloured and white members were from elsewhere. The specifics of this will be discussed in Chapters 6 and 7.

3.4 Data Collection

Engagement with the site and participants began in July 2016. Data collection began in September 2016 after the commencement of the winter holiday and continued until the end of March 2017. All data collection occurred in Cape Town and Khayelitsha. Due to the nature of
the research methods employed, data collection involved months of participant observation on site, in meetings, and even during transportation to and from the Lukhanyo Hub. The final portion of data collection was the interview period, which occurred between January and March of 2017, overlapping periods of participant observation.

3.5 Data Analysis

All audio recordings from each interview and notes taken during the interviews were transcribed by the researcher. The next step involved entering the field notes and interview transcriptions into NVivo, a software program that supports qualitative data analysis. Following the strategy employed by Colasanti et al. in their work on urban agriculture in Detroit, the author analysed each data collection by code and research question in order to build summaries that illustrated dominant themes, answered research questions, and also maintained the context of the specific interview or observation, which were then used to build the final analysis section (2012, p. 354). The key themes in the data related to visions for urban agriculture including the school garden, creating a farmer network, an urban agriculture training centre, and concepts for a distribution model; there were also several themes that emerged around critiques and challenges for the development, most notably problems with community engagement, a funding paradox, and critiques of the leadership.

3.6 Research Timeline

The data collection process for this dissertation was not linear. As the project was still under development, the results of this study were collected in a dynamic environment, which had considerable impact on the results. The process of this has been documented in a way that was
carefully considered by the researcher to be as systematic and accurate as possible. A timeline has been provided in Chapter 5 to help ground the data in time and place.

### 3.7 Study Limitations

There were certain limitations faced during this study. The first was being misinformed by the developer about the status and intentions for the project. For example, the author did not become aware that the project did not have a lease for the full property, or that the plans for the project were not formalized, until several months into the study. This was a major limitation, as it became very difficult to formulate a comprehensive and definitive discussion of the findings regarding a dynamic case study site.

The second limitation was time. The fact that this dissertation was completed alongside coursework only allowed several months for the data collection and analysis process. More time would have allowed for additional interviews or even an expansion of the scope of the project.

### 3.8 Ethical Concerns

As in any form of research dealing with human subjects, it was critical to ensure that ethical boundaries were not crossed during the conduct of this case study. Ethical clearance was obtained from the University of Cape Town’s Faculty of Science Research Ethics Committee. Following the Ethics Committee procedure, informed consent was secured from all interview respondents. Additionally, all participants were informed of the study objectives and the procedures to be followed. The interviewees were allowed to participate on a voluntary basis. All participants interviewed were assured that their comments would remain anonymous, confidential and not shared with anyone, but would be used solely for the purpose of academics. All interview data remained in the control of the researcher and was stored on a password-protected computer. With regards to participant observation, the concern with obtaining informed consent from the participants is one that was noted by the researcher, and participants were made aware of the author’s presence by means of introduction. Again, all participants involved in the observation process of data collection were kept anonymous.

It is worth noting that there were several occasions where the author’s skills were co-opted into the development process – most notably to produce maps of the land within a 1km radius around the Lukhanyo Hub site. These maps were requested by the developer to help him locate vacant land around the Lukhanyo Hub in order to determine potential sites for expansion as well as to potentially locate other gardens currently surrounding the Lukhanyo Hub. The author was also asked to liaise with the farmer to collect information on these gardens. This task was not completed, as arrangements to meet with the local gardeners was not arranged during the data collection process. In these situations, the author chose to conduct these tasks, but also
effectively had to in order maintain rapport with the participants. However, the author was
cognisant of the level of participation maintained so as not to jeopardize her impartiality as a
researcher.

Chapter 4: Case Study Background of the Lukhanyo Hub Project in Khayelitsha, Cape Town, South Africa

This chapter begins with an overview of Cape Town’s unique position in the global world
order – including a description of the city’s current sustainability efforts and their struggle with
high levels of inequality. It then offers a brief background on Cape Town’s complex history of
racial segregation, and the formation of the township of Khayelitsha. It then moves into a
discussion of urban agriculture in Cape Town framed by the city’s current efforts to be seen as a
world class, sustainable city. This discussion includes an overview of the municipal and
provincial governments policies and programs for urban agriculture, as well as a brief overview
of the current NGO support for UA in the city.

4.1 “Worlding Practices”, Sustainability, and Inequality: A Brief Overview of Cape Town
and Khayelitsha

There is a general consensus amongst urban scholars that South African cities are quite
distinct from other African cities (Murray, 2015). As Parnell explains, the South African city is a
place where both northern and southern descriptions resonate, perhaps more easily than in other
African cities (1997). South African cities are considered a lab for the study of urban culture and
form, and are frequently a place of research and study (Parnell, 1997).

The City of Cape Town presents a unique opportunity for studying new forms of urban
agriculture as it has shown demonstrated leadership in promoting urban sustainability and urban
design (Stanvliet et al, 2004). In fact, it is the only African city on the Ethisphere Institute's list
of the ten cities most likely to become a global sustainability centre by 2020 (in Erasmus, 2008)
and was named one of the one hundred resilient cities in the world (Resilient Cities, 2017;
Petterson, 2016). Recently, the city sold the first “green bond,” which, according to Mayor
Patricia De Lille, represented a vote of confidence in the city to deliver on green development
(Phakathi, 2017; Dentlinger, 2017). Additionally, as the World Design Capital of 2014, the city
opened itself up to a variety of innovative designs from around the world, several of which were
related to sustainability and urban agriculture. As such, there is a legacy of vision and
experimentation with worlded urban design in the city, various interventions, ambitious visions,
innovative concepts, and speculative experiments from elsewhere were introduced into Cape
Town in an effort to mould it into a world class, sustainable city of global significance.
Complicating attempts at becoming a “global”, “world class” or “sustainable” city, Cape Town simultaneously experiences problems with inadequate service and infrastructure provision, urban poverty and unemployment – especially in areas on the urban periphery like Khayelitsha – as shown in Table 1. As explained in Chapter 2, the world class cities framework was created by Friedmann (year), and has largely shaped ideals of urban development. Like other African cities, though perhaps to a lesser degree, the City of Cape Town struggles to meet the needs of its citizens. Rapid urbanisation, inadequate resources, and high levels of inequality have made adequate service delivery and resource distribution difficult.

The extent of this inequity in the City is exemplified by the most recent figures produced using the Gini index and the Palma ratio. South Africa has been named the most unequal country in the world (World Bank, 2017). According to these results, Cape Town’s inequality levels are superseded only by other South African cities (UN-Habitat, 2010 in Smit, 2016). This present reality is rooted in a complex history of racial and spatial segregation. The remainder of this section explores the formation of Khayelitsha and the current state of urban life in the largest and fastest growing of Cape Town’s townships.

Table 1: Key Statistics for South Africa, Cape Town and Khayelitsha

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>Cape Town</th>
<th>Khayelitsha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>51,770,560</td>
<td>3,740,026</td>
<td>391,749</td>
</tr>
<tr>
<td>Poverty level[2]</td>
<td>---</td>
<td>47%</td>
<td>74%</td>
</tr>
<tr>
<td>Unemployment level[3]</td>
<td>29.8%</td>
<td>24%</td>
<td>38%</td>
</tr>
<tr>
<td>Formal dwelling[4]</td>
<td>77.6%</td>
<td>22%</td>
<td>55%</td>
</tr>
<tr>
<td>Education level[5]</td>
<td>40.6%</td>
<td>46%</td>
<td>36%</td>
</tr>
</tbody>
</table>

While racial segregation in the Cape began centuries ago, residential segregation can generally be traced back to the beginning of the 1900s, when black Africans were forcibly relocated to a new segregated township beyond the urban edge called Langa (Smit, 2016). The 1950s introduced an acceleration of racial segregation and included expansive construction of “townships” for black Africans (Smit, 2016; Bond, 2007, p. 405 in Darity, 2007). This era of construction aimed to move black Africans far from the urban core, and thus from white
residents, by pushing them farther into new township areas of Nyanga and Gugulethu (Smit, 2016). Residents received minimal infrastructure and services, and were not allowed to own their homes; these restrictions led to overcrowding throughout the 1970s (Swilling et al, 1991).

In 1983, black Africans were moved to Khayelitsha, which means ‘new home’ in the isiXhosa (Sefali, 2013). The township is situated approximately 30 km from the CBD on low-lying dune land off the N2 highway (Smit, 2016; Berlanda, 2017). Khayelitsha became the last of many segregated townships surrounding Cape Town and is considered to be one of the apartheid regime’s last efforts to impose the Group Areas Act. Instituted in 1950, the Group Areas Act segregated different races into separate geographic regions and restricted the ownership and occupation of land to specific groups (SAHO, 2011). Facing population pressures, Khayelitsha was the apartheid government’s solution to the rapidly growing number of migrants from the Eastern Cape and overcrowding in other Cape Town townships (Sefali, 2013).

According to the most recent census, Khayelitsha is one of the largest and fastest growing townships in the Cape Town metropolitan area (Stats SA, 2011). Today the township houses 392,000, just over 10% of Cape Town’s population (Smit, 2016). Along with population growth has come “a large amount of informal, commercial and industrial activity, expanded shopping centre life and intensified differentiation between rich and poor neighbourhoods” (Freund, 2010, p. 292). However, the inequities faced by residents of Khayelitsha did not end with the fall of the apartheid government in 1994 (Sefali, 2013). While there has been infrastructure upgrading in some parts of the township, it is still partially informal and many residents lack access to basic services (City of Cape Town, 2013; Sefali, 2013) and face complex problems of insecure land tenure, violence, crime, inadequate public infrastructure, health disparities and xenophobia (Berlanda, 2017).

[1] All statistics retrieved from 2011 census, Stats SA and City of Cape Town, unless otherwise stated
[2] Persons earning below R3200 per month. No equivalent statistics were made available for the whole of South Africa; however, according to Stats SA (2011) 20.2% of the population live below the food poverty line of R321 per month and 45.5% below the upper-bound poverty line of R620 per month
[3] Census 2011 measured the de facto population, and included both formal and informal employment
[4] Statistics do not imply a binary between formal and informal traditional dwellings are also included in the Census results
[5] Percent of population aged 20 years or older who had completed Grade 12 or higher

Berlanda refers to Khayelitsha as an “archetypal African city” where the “garden city logic of apartheid era townships” has been overrun by the self-regulating, fast-paced growth of makeshift informality (2017, n.p). As such, peripheral housing sites in African cities, like
Khayelitsha, which are essential to the urban poor, are frequently seen as the antithesis of modernity and development against contemporary standards of world-class cities (Preston, 2007). They are viewed by local authorities, elites middle classes and most foreign visitors as problematic and unsightly (Simon, 1992). While the cities of South Africa are increasingly made to resemble other aspirant world-class cities in the Global South (Murray 2004), Smit et al. argue that “at the city scale, social and economic changes have tended to reinforce the marginalisation of areas such as Khayelitsha” (2016, p. 196). This phenomenon is embodied in the literature on ‘worlding’ discussed in Chapter 2, whereby aspirational attempts to create world class African cities has led to problematic and unequal results for the urban poor, including the residents of Khayelitsha. This paradigm acts as a persistent tension throughout the case study as attempts are made to engage with the complex realities that the “ontological disadvantages [of] living in Khayelitsha implies” alongside visions for creating a replicable model of urban development.

4.2 Urban Agriculture in Cape Town

In regards to urban agriculture, Cape Town is particularly distinct from other cities in the Africa. As stated in Chapter 2, most African urban farmers face a lack of institutional support and resources. However, the estimated 6 000 urban farmers in Cape Town (Olivier, 2016) have received institutional support for urban agriculture from the municipal for over 10 years, and from the provincial government for nearly as long (Dunn, 2010; IRIN 2014).

In 2007, the City of Cape Town adopted its Urban Agriculture Policy, which aimed to create a supportive and enabling environment for UA in the city. According to the policy document, the city’s vision for urban agriculture is: “A prosperous and growing urban agricultural sector” (p. 3). This vision is supported by the following strategic goals:

- To enable the poorest of the poor to utilize urban agriculture as an element of their survival strategy (household food security)
- To enable people to create commercially sustainable economic opportunities through urban agriculture (jobs and income)
- To enable previously disadvantaged people to participate in the land redistribution for agricultural development programme (redress imbalances)
- To facilitate human resources development (technical, business and social skills training)

The policy also established 9 key objectives: 1) establish and maintain a comprehensive database for all stakeholders; 2) introduce and maintain research programme; 3) create linkages with other strategies; 4) establish urban agricultural consultative forums; 5) build strategic partnerships; 6) design land release/utilization plan for urban agricultural purposes; 7) establish urban agricultural unit; 8) establish urban agricultural resource centres; and 9) develop and
introduce monitoring and impact assessment tools and mechanisms (City of Cape Town, 2007). The policy shows that Cape Town is no longer seen by local authorities to be a non-agricultural entity. This demonstrates a major shift in the way local government views urban food production and the city itself. Furthermore, as cities like Cape Town challenge institutionalised notions of what cities are for and how they should be developed, traditional, modernist notions of the city are being replaced. In 2013, there was a public participation process to create a new urban agriculture policy, but a change in political party stopped momentum, and there has been a lack of political will to enact it since (interview with the representative from the City of Cape Town’s Urban Agriculture Unit on 1 March 2017). Currently, the draft policy is not publicly available.

The City’s Urban Agriculture Unit, a product of the 2007 UA policy, which sits in the Department of Social Development (previously Economic Development) provides educational and material support to small-scale urban farmers in the city. This support takes the form of providing seeds (for common local crops such as spinach, cabbage, beetroot, carrots, and broccoli), tools, water subsidies, and practical training. Participation in the program has tripled since the first few years from 20 to 60 gardens. However, proof of secure land tenure and water access for at least five years is required for participation, which, according to a representative from the Unit, is a barrier for many people (interview with the representative from the City of Cape Town’s Urban Agriculture Unit on 1 March 2017). This highlights the challenges for urban farming in Sub-Saharan Africa just presented. Other municipal departments also engage with urban agriculture, including Early Childhood Development, City Parks, and Sustainable Livelihoods. Essentially they are doing the same thing but in different capacities and with slightly different advocacy positions, and levels of support.

The Provincial Department of Agriculture (DOA) also provides resources to urban farmers. Through the DOA farmers can access funding, seeds and seedlings, and more comprehensive agricultural training than the City (interview with the representative from the UA Unit on 1 March 2017). Since 2009, the DOA and the City have collaboratively supported “1,425 household garden and 132 community garden projects, representing 13,725 individuals” (IRIN, 2014, n.p.).

According to the comprehensive food system analysis of the City of Cape Town conducted by Battersby et al. (2014), there is also substantial support for urban agriculture from local NGOs. The study concluded that there were over 100 NGOs working on urban agriculture in Cape Town as of 2014 (Battersby et al, 2014). Several of the most established NGOs in Cape Town include Abalimi Bezekhaya, SEED, Soil for Life, Slow Food Youth Movement, WESSA, and the Oranjezicht City Farm. Though the specific focuses of each NGO vary, most concentrate on small-scale subsistence UA. Some operate on an economic model which markets food in the inner city for a profit (Abalimi Harvest of Hope in Kirkland 2015; Oranjezicht City Farm in Rabkin 2013). This builds on the growing trend in the Global North, and in Cape Town over the
past several years, of markets becoming a trendy weekend activity (IRIN, 2014). There has previously been little engagement between local UA NGOs and government (Battersby et al, 2014).

It is important to refer back to the Chapter 2 here to note that there has been considerable push back from some South African food scholars (located in Cape Town) who argue that urban agriculture cannot be a ‘panacea for Africa’s food crisis’ (Battersby and Haysom, 2016). These scholars report that while proponents of urban agriculture note that 40% of African urban residents are involved in some form of agriculture, research in Cape Town shows that less than 5% of poor residents were involved in any form (Battersby, 2008; Battersby and Haysom, 2016). Moreover, they assert that there is little evidence to suggest urban agriculture is contributing to food and nutrition security, because in most cases incomes are so low that any indirect food security benefits are minimal (Battersby and Haysom, 2016). This critical work serves to show the essentiality of proper critical evaluation of urban agriculture in new research.

4.3 Urban Agriculture and Urban Planning in Cape Town

The link between urban agriculture and urban design in Cape Town was arguably established in 2014 when the city won the bid for the World Design Capital of 2014. Throughout the year several design projects incorporated urban agriculture, some which worked with existing NGOs in the city. These projects included rooftop beekeeping and gardening in the CBD, a permaculture project with local NGO SEED, and designing urban gardens in the Company’s Garden, the Science Centre and in Khayelitsha. Many of these projects were not implemented, but they set the stage for further innovation. Several others have been innovated in recent years, including a rooftop gardening scheme piloted by Cape Town-based designer Stephen Lamb from Touching the Earth Lightly (Cape Town Partnership, 2012). Lamb has also created a conceptual project called Green Shack, which imagines vertical vegetable patches set up on the sun-facing walls of homes within informal settlements intended to create food for the household, regulate the temperature of the shack, and present considerable opportunities for the re-introduction of plant life and the creation of “green corridors” (Design Indaba, 2013, n.p.). Other examples put forward in the discussion, such as green roofs or living walls, have been implemented but only for ornamental purposes (see Westin Hotel, Cape Town CBD). This serves to highlight the mushrooming interest in these new forms of urban agriculture in Sub-Saharan Africa. However, the Lukhanyo Hub would be the first of its kind to leverage wide-scale investment in order to incorporate new forms of urban agriculture like rooftop gardens and greenhouses into underprivileged areas on the Cape Flats.

While some cities in Sub-Saharan Africa still view urban agriculture as a backwards mode of survival, or a rogue form of urban activity (Morgan, 2009), urban agriculture has frequently become a prescription for urban food security in African cities (Battersby and
Haysom, 2016). Some scholars say its popularity is a result of “the long role it has played throughout human history of providing food to city populations after it was apparent that food supplies from rural and foreign sources were ‘insufficient, inadequate, unreliable and unaffordable’” (Sonnino, 2009, p. 427). In many ways, urban agriculture offers many potential benefits for urban residents, including: social benefits from increased social cohesion, environmental benefits from improved land use, economic benefits from income generation (McClintock, 2008). For example, in Dar es Salaam, the constant expansion of urban agriculture, which city authorities have been actively promoting since the 1980s, has been delivering many environmental benefits (Sonnino, 2009). However, devising policies that ‘look at urban agriculture in isolation’ could potentially undermine sustainability of the food system (Sonnino, 2009, p. 430). Despite the caution, more cities in South Africa are embracing urban agriculture, and only urban agriculture, as a food security solution (Battersby and Haysom, 2016).

Chapter 5: The Lukhanyo Hub Project Case Study Overview

This chapter includes a detailed overview of the case study site, the Lukhanyo Hub. To help ground the research in time and place, a timeline has been provided at the beginning of the chapter. Next is a discussion of the background of the Lukhanyo Hub, including its roots in an urban agriculture development for the nearby BT Community. It then discusses the original visions for the project and the details of the design. Next is a description of the process of pitching the Hub to the Department of Education and other funders. Then the chapter discusses an overview of the plans for implementing the Hub, which were halted due to complications in securing a lease from the school. It concludes with a discussion of the charrette. This workshop focused on infrastructure planning and the primary attempt at connecting built environment practitioners with urban farmers and the community.

The Lukhanyo Hub was chosen as a case study based on a few unique factors. Firstly, it was located in Cape Town’s most rapidly growing township. Secondly, it combined urban agriculture with elements of innovative planning, design, and architecture such as mixed-use building design, solar panels and rooftop greenhouses, as well as an urban food garden, aquaculture, and hydroponics. Thirdly, the project seemed to be gaining significant government support, corporate investment, and buy-in from other local NGOs. Finally, it was unusual in that at the outset the developer explained that the vision was to use this development as a model to establish a flexible development process that would enable replication in multiple contexts across the world. These characteristics provide a unique and critical opportunity to explore how new visions for urban agriculture are translated into African cities. Furthermore, this case offers an ideal opportunity for contributing empirical research to the literature on urban agriculture in the African context, and that of Southern and African urbanism.
5.1 Timeline

- DEVELOPMENT
  - CONCEPT: URBAN AGRICULTURE SITE 1
  - TEAM GATHERED
  - PARTNERSHIPS CREATED
  - STAGE 1 FUNDING
  - R & D PHASE 1

- IMPLEMENTATION
  - FUNDING
  - CREATE PARTNERSHIP
  - HUB DEVELOPMENT
  - URBAN AGRICULTURE SITE 2

- OPERATION
  - UA TRAINING & SALES
  - SPORT TRAINING & EVENTS
  - HOUSING OCCUPIED
  - COMMERCIAL SPACES
  - PROGRAMMES ACTIVATED
  - ARTS & CULTURE
  - SKILLS DEVELOPMENT
  - EDUCATION CENTRE
  - HEALTH CENTRE
  - ECO CENTRE
  - PUBLIC SPACES

5.2 Lukhanyo Hub Project Overview
The Lukhanyo Hub project is located at the Itlanganiso Secondary School in Site C, on the north-eastern side of Khayelitsha, as shown in Figure 1. Lukhanyo, meaning ‘light’ in isiXhosa, is a mixed-use project currently in the development phase. The Lukhanyo Hub seeks to develop a system of support to residents in marginalised areas of urban South Africa through programmatic and built infrastructure (1:1, n.d.). According to the RCDC website,

“Lukhanyo Hub in Site C, Khayelitsha is a new ‘catalytic’ model developed by RCDC to deliver affordable housing, high quality education, training, recreation programmes and health services alongside employment opportunities delivered through innovative buildings, energy systems and outdoor spaces in economically under-resourced areas. The system is supported through public-private partnership creating an economically sustainable system through public-private partnerships. The overall system is being developed to be replicable in multiple contexts whilst being responsive and respectful of its context and adaptive to changing conditions over time” (RCDCollective, 2017, n.p.).

RCDC is made up of the developer and the landscape architecture student. The UA team of the LH included the developer, the landscape architecture student, the city planner, the project manager, the farmer, the farmer’s assistant, and the community representative. Other key stakeholders were the NGO representatives, and the City’s UA Unit representative, as well as those who attended the charrette and were loosely involved in the development process including
a local youth NGO leader, two local business owners, an aquaculture expert, a sports expert, a representative from a local community centre, several architects, representatives from a community engagement NGO, a water management specialist, and two other project managers who worked in Khayelitsha.

5.3 Background: Urban Think Tank, Ikhayalami and the Empower Shack Movement

The roots of the Lukhanyo Hub development are in a settlement-upgrading project in Khayelitsha Site C, the Empower Shack Movement, where the developer of the Lukhanyo Hub was involved as a consulting landscape architect. The Empower Shack Movement is the result of a partnership between Urban Think Tank (U-TT), an interdisciplinary design firm centred around contemporary architecture and urbanism in Zurich, Switzerland, and Ikhayalami, one of the prominent shack upgrading organizations in Cape Town’s townships. The project, which attempted to re-block post-apartheid, top-down development (characterised by single-story, single-family dwellings) consisted of four core components: 1) a two-story housing prototype (as shown in Figure 6), 2) participatory spatial planning, 3) ecological landscape management, and 4) integrated livelihoods programming (Berlanda, 2017; Future Cape Town, 2016).

Co-founder of UTT, Alfredo Brillembourg, commented on this project saying, “While we are absolutely trying to innovate upon the design and technology of low-cost housing, the Empower Shack project seeks to address larger challenges, and in doing so, hopefully changes not just the built landscape of places like Khayelitsha, but also the social, political and economic structures that shape residents' lives" (Brooks, 2014, n.p.). Doing so highlights a paradigm shift where “architects [sic] reframed their perspective on the urban condition of the slum - not as a problem but as a solution” (Tory-Henderson, 2016, n.p.)

Figure 7: Two story housing prototype (UTT 2016)
According to Berlanda, the Empower Shack project presents both “interesting and problematic” results (2017, n.p.). Reflecting on his involvement with the Empower Shack Movement, Bennett, an architect now involved with the Lukhanyo Hub, commented that the problem with projects like the Empower Shack Movement was that “too much focus and promise is often held in a ‘better’ system or better development aid product,” when what is needed is not a “product” but a “locally-merged system” (2013, n.p.). Furthermore, he felt that the engagement with the community was often “token and not truly co-productive” (Bennett, 2013, n.p.). The experiences of the Empower Shack movement provide a background on the roots of the project and a launching point for understanding how an attached project has attempted and been critiqued for translating ideas from the Global North into Khayelitsha.

5.4 The BT Community Garden: Creating the Lukhanyo Hub School Garden

The first vision for urban agriculture at the Lukhanyo Hub was conceived prior to the conception of a hub model when the BT community requested a community garden as part of the settlement upgrading process. To create the urban garden, the developer contacted the city planner who was the Principal Spatial Planner for the City’s Transport and Urban Redevelopment Authority in the Mitchell’s Plain, Blue Downs, and Khayelitsha areas to find information on vacant land in Site C. The city planner joined the project as he was interested in using urban agriculture as a means of redeveloping vacant land. They found the vacant land they were looking for at a school nearby. In Cape Town vacant land on school grounds has frequently been used by NGOs for urban agriculture because of the amount of vacant land held by the Department of Education and the easy access to resources they offer (interview with NGO representative #1 on 18 January 2017).

Partnering with Ikhayalami, the developer and city planner stated that the community garden was created to provide food security for the community. The developer claimed “food insecurity is a vast problem in the Cape Flats…[because] land is available but not accessible” (interview with developer on 20 April 2017). The two had originally intended to develop the whole site as an urban farm to provide food for the community but also as a means to add value to land while it lay unused. The latter perspective was held by the city planner, who has pushed for a policy change within the city to make land available for urban agriculture that was waiting to be used for other things. He argued, this adds value to vacant land, decreases the chance it is used for criminal activity, addresses recreational deficits, provides job opportunities and offers opportunities for education regarding the production of food (interview with city planner on 15 January 2017; see also Wood, 2016).

Looking for advice on how to develop the land for urban agriculture, the newly formed team reached out to Cape Town’s most well established urban agriculture NGO, Abalimi Bezekhaya, which has been featured frequently in the literature on UA in Cape Town. They were
informed that the land was actually not very suitable for urban farming due to climate and soil conditions, but that it would be useful to test out a pilot garden. They started a pilot garden on some spare land at the school that one of the school’s teachers was already using for a small garden. The developer declared it ended up being beneficial to start that way because even a small site is complicated.

Over the course of developing the garden, they experienced several problems with the BT community. The developer noted that he had some problems with infighting and holding people accountable to the actions and commitments they signed up for. For example, the developer stated he purchased a pile of organic compost for the garden and then it sat unused and dried out. He asked, “how can that happen if the group is saying we need food security, we need space to have a garden… but we’ve got land, seedlings, a big pile of compost drying out” (interview with developer 20 April 2017). His observation was that there were people in the BT community who wanted the garden and wanted to produce food and there were others who thought this was an opportunity who just hung around and who promised things without delivering, waiting for the benefits.

While the developer himself could not offer a full explanation, it is worth considering that perhaps these residents simply didn’t know how to garden per his assumption. The developer stated in his interview that residents were from the Eastern Cape (a predominately rural area) so they should have known how work in agriculture. However, research by Dunn (2010) indicates that this assumption may not be well-founded. In her study of urban farmers on the Cape Flats, Dunn (2010) concluded most farmers in the Cape Flats were not necessarily recent or very recent migrants to the city and some were not migrants at all. Her research refuted the traditional notion of urban farmers being recent migrants who had not secured employment in the formal sector (Dunn, 2010). Furthermore, while some of the participants in her research came from a strong farming tradition, many had no farming background whatsoever (Dunn, 2010). Therefore, she concluded that while a family farming background could be an important motivator for some urban farmers, it is not true for all (Dunn, 2010). This research turns the developer’s assumptions about the purpose of UA on its head and reveals that such false assumptions about UA can lead to failure.

After struggling with the garden for a while, the developer hired and paid a representative from Abalimi to manage the garden. She was a Xhosa-speaking woman who was very experienced in urban agriculture projects, and he hoped she would be able to leverage her knowledge and resources in order to make the best use of the land they had. However, despite her help, he said there were still problems of infighting and a lack of commitment to the garden from the community. After a year, the relationship between the developer and the community came to a head. Referring to the conflict, the developer declared, “it was a mess, but also quite normal” (interview with developer 20 April 2017). He indicated that such tension was common
in development work (interview with developer 20 April 2017). Yet, the confrontation made the developer and the rest of the team decide that going forward, it would be important to determine a clearer focus and more structure, including a constitution, a formal system, roles and responsibilities, a strong leader and a champion, skills and managerial abilities, accountability, and consequences (interview with developer 20 April 2017).

Eventually the developer and the city planner, with the help of previous members of Ikhayalami (who are now part of the development/UA team), brought in the current farmer. He is a local farmer born and raised in Khayelitsha. His background in agriculture is quite short, though remembers farming with his grandparents and parents as a child. He spent most of his life doing service in the military and in the law enforcement and security field, but his interest in agriculture was piqued after his older friend was no longer able to care for his garden and asked him to take over. The developer stated that the farmer’s background in the military and security equips him with the kind of authority and sense of structure that people cling to in a “chaotic environment” (interview with developer 20 April 2017).

The developer expressed that, choosing the farmer was important in the sense that he was from Khayelitsha, he knew the Site C community, he was black, and he was also driven, organised, and passionate. The developer noted that it was important to have the farmer play a strong role in the development process and eventually take a larger role in things because most UA NGOs in Cape Town (such Abalimi, SEED, and Oranjezicht City Farm - the largest UA NGOs in the city) were started and are still lead by white people, despite the majority of the farmers being black or coloured (Abalimi Bezekhaya, n.d.; SEED, n.d.; Oranjezicht City Farm, 2018). Both of the NGO leaders I interviewed for this dissertation were white. This has likely been shaped by a larger climate of racial inequality and spatial segregation in post-apartheid South Africa, as explained in the previous chapter. If the farmer were to be able to manage UA at the Lukhanyo Hub as it develops into the large network that is anticipated, that would be a paradigmatic shift for racial dynamics within urban agriculture in Cape Town. This is explored further in section 7.3.

5.5 Creating the Lukhanyo Hub Project

In response to the garden failure and supported by the rationale that the vacant land on the school plot was not suitable for urban agriculture, the developer and the city planner made new plans to make use of the vacant space at the school. Reflecting on the process, the developer stated that it “actually wasn’t moral or reasonable” to develop the whole site for urban agriculture because satisfying just one need in an area where there are complex needs and limited resources would be problematic. So, he and the team decided “that land should consider all of those needs and determine what is applicable” (interview with the developer 20 April 2017). Working with architeets from OKRA, a landscape architecture firm in the
Netherlands who consulted on the Empower Shack project, the developer and city planner designed a hub development on the vacant land owned by the Department of Education adjacent to the school.

Figure 8: Lukhanyo Hub project January 2016 - A Tertiary scale catalytic hub for economic and social development in South Africa’s townships

The initial plan for the Lukhanyo Hub is featured in Figure 7. Along the northwest side are existing Reconstruction and Development Programme (RDP) houses and the southwest side features existing shacks. The Hub design included one building that featured formal spaces for commercial activities such as retail, banking, and services on the ground floor; spaces for NGO offices, private offices, and a clinic on the next floor(s); and a rooftop featuring a greenhouse and solar panels. The other building was the Safe Hub with a section for early childhood development, a café, library, classrooms, and a training centre, which also featured green rooftop farming structures. Between these two buildings was a community square and children’s playground. Next to the Safety Hub is an AstroTurf football pitch and netball courts, and an outdoor gym. Towards the northeast side is the existing school and urban garden, which is labelled as the school’s food garden. The updates to the school include new solar panels on the existing school’s rooftop space, and an outdoor classroom. The design also includes the existing school hall as well as a new covered public space for a market, cinema, and commercial/community events. Next to this is the rest of the urban agriculture sector, separate from the school garden, which includes hydroponic tunnels, fish farms, and a larger
urban garden. Finally, along the southwest side is a waste management corridor and a space for existing informal dwellings.

The original vision for the Hub design was based on the Amandla EduFootball Safety Hubs, which are currently operating in several places in the Cape Flats and in Diepsloot, an informal settlement in Johannesburg (Amandla EduFootball, 2017). According to Amandla, the Safe Hub offers a safe space for young people through a football-based programme that focuses on health, safety, education, and employability (2017). The hubs have been selectively placed at the centre of urban/sub-urban slum to become places of intervention to improve livelihoods (Safer Spaces, 2017).

As discussed in the literature review, mixed-use design is a key principle or feature of the built environment as advocated by most contemporary urban planners – particularly within the new urbanist discourse. Intended to overcome the challenge of competing land uses, mixed use design has taken off in South Africa since the late 1990s, including projects like Century City in Cape Town and Melrose Arch, Steyn City, and The Waterfall Development Project in Johannesburg (Gilmour, 2015). These developments are aimed at addressing mounting congestion problems through walkability, increasing security (see Jane Jacobs, 1961), and implementing green building technology (Gilmour, 2015).

According to an article by Horsfield, “Getting it right requires new ways of thinking around how the different users of mixed use space interact, how the design of public and private space is mediated, and the role of ‘precinct amenity’ in creating successful urban places...it is fascinating to explore the underlying drivers for these projects – the key social trends, shifting cultural preferences, and new ways of working and connecting that have clearly begun to drive the shape of US cities in fundamentally different ways. Much of this is in Asia, South America and Africa, so the need to understand cultural nuances and value sets is paramount” (2015, n.p.). She continues, “We can’t just be focused on bricks and mortar. We have to be more than architects or engineers” (Horsfield, 2015, n.p.). Developers must learn to work with designers and urban planners to bring together affordable, healthy, green, smart design in order to transform social outcomes. This means that today’s developers need to be sociologists, as people are now using space in fundamentally different ways (Horsfield, 2015, n.p.).

5.6 Pitching the Lukhanyo Hub Project

In order to begin implementing the Lukhanyo Hub, the developer and his team had to contact the Department of Education. Coincidentally, the Department had already been planning to invest in constructing sports fields at the Itlanganiso school. After some negotiating, the Department agreed to let the developer organize the implementation of the sports fields, and agreed to let them include the sports fields in the larger Hub model they
proposed, contributing a large investment of R10 million towards the project. It was agreed that these sports fields, and the Hub, would serve nine schools in the area, including the Itlanganiso Secondary School.

The developer indicated that the Department of Education was interested in this proposition because they are currently facing mounting pressures to provide services to schools despite operating on a very limited budget. By leveraging land as an asset, they have been able to meet educational needs by partnering with developers. The developer said, “some people ask [sic] is this privatization of public land?” he continues, “it is, but with enough checks and balances, it can be good. It’s not a binary thing. It’s more complex (interview with the developer on 20 April 2017).” As stated in the literature review, concern over public private partnership is rooted in a contemporary trope that is particularly relevant in African cities whereby African governments, in the face of inadequate funds and the pressures of rapid urbanization, partner with architects and developers who frequently institute problematic visionary developments to the detriment of many of the city’s residents, primarily the urban poor. This documented pattern provides further justification for undertaking this research.

After receiving the funding from the Department of Education, the project gained significant interest from academics, other government agencies, and investors. The city planner claimed that getting the 10 million rand from the Department of Education created a snowball effect of interest from other parties (interview with the city planner on 15 January 2017). As a result, the development team later received R300,000 from the South African Branch of Swiss Re, a Zurich-based insurance company, which helped fund additional investments in the site, primarily infrastructure for the school garden. Over the course of the project there has seemingly been significant buy-in from government, academia, and other NGOs, as well as community leaders (entrepreneurs, community representatives) from Khayelitsha and built environment experts locally and abroad.

5.7 Implementing the Lukhanyo Hub

The initial timeline for the project was to be completed in several phases. The sports, urban agriculture and environmental education implementation (working with local NGOs SEED, the Wildlife and Environment Society of South Africa (WESSA), and Abalimi Bezekhaya) was initially slated to be completed by May 2016. The sports facility was completed by the deadline, as it was already funded by the Department of Education. However, at that time progress was still being made on the urban agriculture development. At the outset of the project, the developers were still in the process of completing resourcing, designing and building Phase 2, which would include the community Safe Hub.

The author visited the site in May 2016 prior to the data collection process. At the time, the sports fields were just being finished and the school garden consisted of several rows of
spinach. Overall, not much changed with the site from May 2016 until the last site visit at the end of March 2017. As shown in Figure 8, the school garden received a few improvements, raised beds were built, a shade netting was put over the garden, a water tank and electricity were installed, a shade structure was attached to the storage container. However, the vision so many people had seemingly signed on to, including the rooftop gardens/greenhouses, a space for aquaculture, and hydroponic gardens did not take shape. It was later revealed that the rest of the project was delayed because the school would not sign the lease that was required to start construction on the remainder of the site, outside of the five-year lease agreed for the school garden. This greatly differed from the anticipated results, and and the vision that was initially presented to the author. The specifics are discussed in the following chapter.

5.8 The Charrette

A key element of the vision process for the Lukhanyo Hub project was the charrettes, as mentioned in Chapter 3. The third Lukhanyo Hub charrette took place on January 31, 2017. The charrettes served as a primary strategy for connecting local and international built environment practitioners with community leaders and practitioners from the other fields proposed at the Hub, including urban agriculture, sport, and economic development, in the visioning process. The focus of the third charrette was infrastructure. The charrette was guided by a local NPO that “facilitates spatial design strategies through critical engagement with residents in poor or unsafe areas of South Africa” (1to1, n.d.). The charrette was guided by two members of the NPO as well as a local socio-technical expert, who acted as a facilitator. The objective for the NPO was to guide a socio-technical development process in order to co-produce a brief around infrastructure requirements for the Lukhanyo Hub.
The charrette started with the unveiling of a wooden model, as featured above in Figure 9. Next was a presentation from the developer on the background of the Lukhanyo Hub, and then an introduction. Here the participants got to know someone at their table and then introduced the person, their background and their goals/visions for the project. Participants included the developer, the project manager, members of the farm team (the city planner, the farmer, two community activists (one previously from Ikhayalami), several architects from South Africa and abroad, as well as two farmers from the local urban agriculture garden Moya we Khaya (a 2014 World Design Capital project), the head of The Fish Farm, an urban aquaculture organization that operates in the Cape Flats. Community representatives present included a cafe owner from the Isivivana Centre, an entrepreneur, and a young community mentor who had plans to build a garden that would connect into the Lukhanyo Hub network. Next, the NPO team used a timeline, as shown in Figure 10, as a facilitation tool to collect valuable information regarding what had already taken place on site and how the stakeholders saw the future of the project.
Finally, the charrette engaged participants in a discussion about infrastructure by trying to guess at elements of design by putting oneself in the shoes of potential users. Guided by the facilitator the discussion focused on hard and soft infrastructure, as shown in Table 2. Furthermore, according to the participants’ infrastructure at the Hub should be: sustainable, flexible, respond to need, represent the community, be secure, and be accessible. As shown in Figure 11 below, infrastructure included access to technologies networking, transport energy systems security, buildings, utilities, admin, schools and systems, public art, landscape, education, sports. Despite there being several urban farmers in the room, UA was not explicitly listed as part of infrastructure needs. There was no discussion of key components necessary for UA or even ones that were featured as part of the advertised designs such as a greenhouse(s), water storage, a space to store produce, or other necessities for this type of activity.
Several participants were concerned that discussing infrastructure before even having a proper brief, a real conversation on specific users or a community needs assessment, was actually in contrast to the normal process of engaging with the built environment. The participants noted that it is impossible to enter a community with a project and have no idea what the community really looks like or requires. They pointed out that where problems had arisen, the team had not done a scoping exercise to better understand the community before spending time hypothesizing what the infrastructure for the site should include.

![Figure 11: Visions for the Lukhanyo Hub (Roggenbuck, 2017)](image)

Table 2: Infrastructure at the Lukhanyo Hub

<table>
<thead>
<tr>
<th>Hard</th>
<th>Soft</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Smart) technology</td>
<td>Operation systems</td>
</tr>
<tr>
<td>Services and utilities</td>
<td>Security</td>
</tr>
<tr>
<td>Public art</td>
<td>Social networks</td>
</tr>
<tr>
<td>Landscape</td>
<td>Community: involvement and organising</td>
</tr>
<tr>
<td>Buildings</td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td></td>
</tr>
<tr>
<td>Physical environment</td>
<td></td>
</tr>
</tbody>
</table>
Similarly, several participants raised concerns regarding the lack of co-development in the development process. Firstly, the facilitator kept referring to the architects as experts, and in response, one of the architects from the UK responded, “everyone should be an architect and involved in designing what this looks like; otherwise it is just top-down development” (participant observation on 31 January 2017). Another participant stated, “We need to devote as much attention to community as much as charrettes”. Thirdly, a South African architect asked why there were not members of the school in attendance in a conversation of development of school land. Furthermore, a local entrepreneur stated that he did not feel as though he could necessarily speak on behalf of the community, even though he was also from Khayelitsha. In contrast, several participants noted the difficulty in approaching a community without something concrete to negotiate from. For example, the head of an aquaculture project in Philippi noted the difficulty they experienced trying to build from a blank slate. Yet, most participants seemed to agree that engaging in a conversation about the specific infrastructure the project would require was beyond the scope of the current phase they were actually in, and more research and engagement with the community was needed before moving forward.

As described in Chapter 2, life in African cities, particularly in townships like Khayelitsha, is characterized by informality. In such places, as Simone describes “people are the infrastructure” (2004a). In contrast, this conversation attempted to focus solely on infrastructure such as buildings, technology, etc. and was void of people such as teachers and the principal of the school, local residents, local traders, etc. The emphasis on infrastructure without a more thorough inclusion of the voices of the people who life and work around the Lukhanyo Hub, and would ultimately engage with the infrastructure created there, ignores the material realities of the local community. It seems clear that if the development continues in such a manner, the results will be similar to those of other master-planned developments blooming across Africa. It is imperative that the development team adequately engage with the community and the particularities of the African context in order to create meaningful, sustainable development that actually benefits urban residents.
5.9 Updated Renderings of the Lukhanyo Hub

Figure 12: Updated Renderings of the Lukhanyo Hub (a) and (b)

The latest renderings shown in Figures 12(a) and 12(b), illustrate the potential future design for the Lukhanyo Hub and show that the community hub will still include rooftop agriculture, and a training centre, which has replaced what was originally called the outdoor classroom in the initial renderings. The urban agriculture sector in the original design, which included hydroponic tunnels, aquaculture, and a larger urban garden, is no longer featured in the new renderings. Strangely, none of the conversations on urban agriculture during the interviews, farm team meetings or the charrette on infrastructure seemed to discuss or highlight these aspects of the design. This was strange because they were the main points that had been discussed with the author at the outset of this project, and the key reason for taking on this dissertation. Furthermore, even though there was an expert in aquaculture who operates in the Cape Flats at the charrette, there was no discussion for why and how it should be included.

5.10 Conclusion

In summary, this chapter has described the development process in order to introduce and explain the background of the case study before discussing the results of the research. This background provides context for understanding the framing, visions and actors involved in shaping the project. The origins of the project were in UA for the nearby BT community. The project really took off after the developer pitched the Hub idea to the WCED and received a shocking R10 million investment. Overall, the impetus for the Lukhanyo Hub was hinged on three factors: 1) the failure of the community garden; 2) the belief of the developer that if the project were to engage with all of the vacant land at the Itlanganiso Secondary School, it should meet a variety of needs within the community; and 3) the need from the Western Cape Department of Education for more funding and external support as a result of the mounting pressures they face from increased enrolment alongside limited budget increases (interview
with the developer 20 April 2017). Attending the charrette was a key method of obtaining information from a larger number of stakeholders invested in the process, and the author’s observations from the conversations of this workshop were indicative of many of the critiques that would arise throughout the interviews, as discussed in greater detail in Chapter 7. Currently the project is stalled from doing more R&D and implementing the second UA phase because of a lack of funding and no lease for the land. Going forward the plan is to secure the lease and funding, and then do more research before breaking ground the middle of 2018 (interview with the project manager). Details on this research is discussed in Chapter 8.

Chapter 6: Results

The Lukhanyo Hub served as a descriptive case study intended to contribute new knowledge to the growing literature on urban development, urban planning and urban agriculture in Cape Town and Sub-Saharan Africa. Specifically, the increasing role of planners on the subject and how new forms of urban agriculture are envisioned and translated into the African context. The dissertation asked three questions,

1. How do each of the actors articulate the purpose/function of urban agriculture?
2. What is the spatiality of their ideal urban agriculture and why?
3. What is the role the state, civil society organizations and community in that vision?

The results centred around four themes. The first involves creating a network of farmers/gardens that is simultaneously linked with the anticipated expansion of the Hub. The second was around urban agriculture and environmental education/training. The third related to the economic or distribution model, which highlighted two competing visions for framing a market. The final theme centred around the overarching vision of creating a contextualised but replicable Hub model.

As indicated in Chapter 3, the delay in receiving the lease from the school for the additional land greatly shaped the results of this dissertation. The author had initially been told by the developer that the land would be developed according to the first digital renderings. However, the development team’s delay in securing the lease for the additional land caused a delay in funding, and thus delayed construction. This had implications for the data collection process as most people focused their visions for UA on the school garden, and not on the multitude of UA projects featured in the digital renderings, as anticipated.
6.1 Creating a Farmer Network

The first theme for visions of urban agriculture at the Lukhanyo Hub was to create a network of current and future farmers in the area around the Hub. Since the plan is to expand and replicate the Hub, part of this expansion would include creating a network of farmers who are linked into and can make use of these Hubs across the Cape Town metropolitan region. This idea was supported by most of the stakeholders, including the developer, the farmer (who had other gardens he was running in the area he hoped to link into this network), the representative from NGO #2, the city representative from the UA unit, and the city planner.

Noting the amount of vacant land, especially around schools in the area, the developer explained there was lots of potential for future hubs and urban agriculture that could connect into the Hub and form a network. The developer was keen on building the network because “that’s where power and resilience comes from. That’s how you share knowledge and/or resources to make it work properly. There is power in numbers. It's like the union principal.” He envisioned farmers could also organize crop schedules and thus make more money by coordinating what produce they sell. However, he admittedly did not know how many gardens were currently interested, or how to link them into the network.

The representative from NGO #2 was interested in incorporating her gardens into the network. Her vision for the Lukhanyo Hub network was to connect farmers, young farmers in particular, so they could share information and learn from each other’s experiences as practitioners in the field. She envisioned the Lukhanyo Hub being a fun place where these farmers could meet, and learn from each other and from other NGOs. Based on her experiences in the community and with UA, she felt that there would be many social benefits from a farmer network that would boost morale and productive capabilities of the local farmers.

The farmer was most interested in creating a network of gardens. His main concern for this network was to combine the power of multiple gardens in order potentially leverage government for more land and access to resources, with the end goal being to get a large plot of land for a proper farm. The farmer, in addition to the representative from the City’s UA unit, stated that access to land is a large barrier to entry for many urban farmers in the area. Addressing this fundamental challenge could potentially open up opportunities for urban agriculture to many individuals across Cape Town who might be interested in getting involved in urban agriculture.

This line of thinking echoes Olivier (2016), whose study of the Cape Flats underscores the importance of networks for urban farmers. In the study he stated that farmer networks create social bonds between neighbours, other farmers, and influential contacts in government, civil society and the market (Olivier, 2016). Similarly, the literature review shows that studies for
RUAF have concluded that an inhibiting factor for urban agriculture is a low degree of formal organization of urban producers, which “limits their capacities to improve their farming systems and marketing opportunities” (2010 in Crush et al, 2011, p. 287); therefore, farmers who join these networks they can leverage these partnerships during tough times and use them to build a career (Olivier, 2016). In fact, several studies found that the most successful UA projects resulted from mutually beneficial partnerships (M. C. Campbell & Salus, 2003; Hendrickson & Porth, 2012; Krasny & Doyle, 2002; MacNair, 2002; Mendes et al., 2008; Teig et al., 2009 in Golden, 2013).

The city planner saw the farmer network as a way to connect potential farmers to land and as a way to use vacant land for productive purposes. The network could help farmers gain and share skills and also develop business sense. Having the farmers linked into a network would make it easier for them to be organized and link into a program where the can be helped. He said one potential pathway for that would be to link it into the city. Just as the Department of Education used public private partnership to work with the developer to build the sports fields, the municipal government sees the Lukhanyo Hub network as a way to provide resources to potential and current urban farmers by linking them into the network and reaching out to them through a centralized location like the Lukhanyo Hub. The city planner, who had hopes to be promoted into a new position at the Mayor’s office during the recent process of local government restructuring, said, as the network expands he saw the Mayor’s office or some other branch of the municipal government being responsible for the logistics of the network and potentially assisting with managing funds. This would provide steady infrastructure to help manage the gardens.

The study of Cape Town’s food system(s) by Battersby et al. noted that, “because of different ideological and economic approaches, government and the NGO sector have not always been able to work together to achieve shared objectives” and thus, “these urban agriculture interventions remain project oriented and do not feed into wider strategic food security planning and as such their real and perceived value remains unrecognized and at times even undermined” (2014: vi). In fact, historically the literature on UA has stated that a lack of institutional support has been a significant barrier to UA (Mbiba, 1994; Bowyer-Bower, 1997; Tevera, 1996; Mkambisi et al, 2010; Battersby and Marshak, 2013). The integration of UA and urban planning seems to, as Dunn (2010) states, indicate a shift. If the Lukhanyo Hub is able to partner with government under shared objectives, then perhaps the benefits of ‘wider strategic food security planning’ can actually be realized.

During the data collection process the author attended a meeting with the UA farm team, the representative from UA NGO #2, and several farmers who worked together at a local garden near the Itlanganiso High School. The farmers’ garden was failing due to drought, lack of funding, and improper care, and they had reached out to the LH farmer for support. During the
meeting they indicated they were very interested in receiving support from the hub; particularly tools, seeds and information. However, they were adamant in declaring that they did not want support if it wasn’t going to be long-term. It seems they had been helped or offered help by international organisations before only to have the funding and support run out. They weren’t interested in receiving support or funding that would dry up that would leave them in an unsustainable position. If the network was to be successful it must focus on creating a partnership that would leave the farmers in a sustainable position, and not vulnerable to the whims of international or donor funding. The researcher attempted to meet with other local farmers during the data collection process; however, the farmer had not arranged meetings per discussion and unfortunately no one was available to speak.

6.1.2 Significance and Conclusion

Overall, the stakeholders were in agreement that a farmer network would be a critical part of the Lukhanyo Hub. The primary difference among the different stakeholders’ visions was the role of government. The farmer saw the network as a way to leverage government whereas the city planner and City’s UA Unit representative saw government as a participant that would directly engage with the network. As stated in 2.2.1, two of the major limitations discussed in the literature on UA in Sub-Saharan Africa is a low degree of organization, and a lack institutional support. As discussed in 2.3.4 public-private partnerships are common in African cities where, faced with mounting urban pressures, government looks to private investment to meet the needs of the local population. By partnering with government under shared objectives, perhaps the benefits of ‘wider strategic food security planning’ can actually be realized. However, how this gets done will be imperative in determining its success. The critical urban planning literature on public-private developments in African cities is highly critical of projects like this one that take new urbanist ideas from the global north and impart them into the African context. Without adequate community participation, which in this case would be current and potential urban farmers around Khayelitsha, then the development risks being detrimental to the livelihoods of the residents. How this process gets done should be a topic of further research.

6.2 Urban Agriculture Training and Environmental Education

The next vision for urban agriculture at the Lukhanyo Hub project that arose as a theme from the data was education. Visions for the urban agriculture education included opportunities for both farmers involved in the network or interested in urban agriculture and for the students at the Itlanganiso school and the nine other schools that are meant to be served by the Lukhanyo Hub. This vision is a shift from the original design, which presented a training centre in the Safe Hub, but not necessarily connected to urban agriculture or environmental training. It seems that this came from pressure from the WCED as well as pressure to appease the Principal and School Governing board of Itlanganiso Secondary School, who seemed strongly opposed to the development.
6.2.1 Student Education

The first education dimension of UA discussed by the stakeholders at the Lukhanyo Hub was student education. This was particularly important considering the site of the Hub at the Itlanganiso Secondary School. In fact, the developer stated that the key reason for including urban agriculture and environmental education in his vision for the Lukhanyo Hub project was due to the fact that the Hub is being developed on Department of Education (WCED) land. He said further that the education requirement from the Department of Education has helped to give some helpful parameters “because as a designer it can be a nightmare;” for example, “if someone gives you a piece of paper and says I want a car – you could spend years trying to design it before you come up with a Tesla or whatever is the correct response” (interview with the developer on 20 April 2017).

In the developer’s understanding government is considered to be a key part of the decision-making process. It was very clear that the developer valued public-private partnership and was willing to meet the needs of the WCED in order to access the provincial land. At this point it is important to refer back to the literature on public-private partnerships and emerging new-build cities across Africa. The research shows that when government and private interests have partnered to develop land in African cities, the needs and interests of people – especially the urban poor - are often left out of shaping development. It was concerning that the developer seemed more concerned with letting the provincial government define the project rather than going to the community and honouring their concerns.

The farmer was also interested in incorporating the schoolchildren into the garden. Already managing one school garden, he is keen on bringing the children at Itlanganiso into the garden and educating them on things like where seeds come from, how to grow, how much water to use, and even taking them on a field trip to Western Cape Seedlings. He says, “For me it’s also the young ones, the school people. They must get involved in this gardening, they can take it forward from us. Our time is done. It’s time for them. We can only sit back and give all the knowledge to them. Then they can take it forward… When I grew up and my mother and father put a plate of food in front of me, I know where it comes from, it comes from hard work, sweat. So when our children understand that it will be easy” (interview with the farmer on 6 March 2017). The farmer’s vision most clearly centred around aiding his community. Linking his vision to his own history in Khayelitsha, he imagined being about to shape the local youth into productive members of society through engaging in urban agriculture.

The representative from NGO #2 was also interested in student UA education, saying, “If the kids can get hands-on in the growing of these plants, then there is a real opportunity for an education about this type of [referring to wild, indigenous] food.” She added, “Just having the garden at the school is good, but there must be active steps taken to include the children in the garden.” (interview with the representative from NGO #2 on 6 April 2017). She also mentioned
that at Ikhaya Garden, one of the small wild food gardens she works with in Khayelitsha, they are actively involving students in the garden and teaching them about planting, and even hope to be able to include them in harvesting and cooking the plants. She hoped to see all nine schools linked together with the Lukhanyo Hub to each have a garden that the schoolchildren can be involved in on a regular basis. The vision of the representative from NGO #2 was focused on spreading the model of wild food, and educating the public on what she believed to be the future of urban food production.

In order to start incorporating the students into the garden and establishing the process for their role in the Lukhanyo Hub, the farming team invited many students from the Itlanganiso school to the final presentations of the Landscape Architecture senior studio, which created prototypes for the future Lukhanyo Hub design. The developer stated this was the first step toward making them stakeholders in the process. Going forward, the plan is to design the education sector of the hub in co-development with the students of the Itlanganiso School. This process will be described in more detail in Chapter 8.

It seemed that the development team started including the school, school pupils and the education element more in the design after there was significant pushback from the Principal and the School Governing Board. Initial renderings and visions discussed for the gardens at the Lukhanyo Hub were not so focused on the school and education. Perhaps including the school and elements of education in the design was an attempt to convince decision-makers at the school, who would be signing off on the lease for additional land, that the development would meet their needs.

6.2.2 Farmer Training

The second dimension of education discussed by stakeholders at the Lukhanyo Hub was farmer training. According to the developer, there is a government, NGO and personal need for a farmer training centre which makes it a critical part of the Lukhanyo Hub’s future. He described plans to have the current farmer lead farmer trainings at the Lukhanyo Hub, and said he would equip him with the necessary skills to do so. He said this training centre will feed into an economic model that centres around creating a system whereby goods and services are made and produced in Khayelitsha, and money is kept in Khayelitsha to better serve the community.

The representative from NGO #2 favoured the Lukhanyo Hub project to other NGOs (like Abalimi) because it had more of a teaching component and she was interested in learning more about and sharing her knowledge of urban farming. She argued that the farmer training and education should come from established NGOs. She noted there’s no reason to reinvent the wheel, because there’s already a significant number of NGOs in Cape Town, including her own, doing great work on urban agriculture, with varying models for how it should be done. Part of this was also because she had a lack of trust in the farmer’s capabilities in his field and as an
educator. She believed that his monocrop method of cultivating only spinach was completely inadequate for combating drought, maintaining soil quality, and providing subsistence. Therefore, she and did not want to see this model spread around. In contrast, she envisioned the garden space at the Hub being a continuous pilot garden that could show different modes of farming. Furthermore, she stated that if training is something that’s going to be included in the Lukhanyo Hub, then the entire network should be involved in educating farmers so information could continually be shared among a broader audience.

The city planner and the city representative from the UA unit were also interested in farmer training and envisioned it being a critical way the city could be involved. They thought the hub could be a space to offer trainings and pitch urban agriculture to get more people involved. The city representative indicated he had not given a presentation on urban agriculture in a community since 2009 and, having a designated space where he could go and reach out to people with the necessary resources would help to make that possible again. For him, the Lukhanyo Hub would once again serve as a means to make up for the shortfalls in government’s capacity.

6.2.3 Significance and Conclusion

Visions for the urban agriculture education included opportunities for both farmers involved in the network or interested in urban agriculture and for the students at the Itlanganiso school and the nine other schools that are meant to be served by the Lukhanyo Hub. This vision is a shift from the original design, which presented a training centre in the Safe Hub, but not necessarily connected to urban agriculture or environmental training. The author argues that it seems as though including the school and elements of education in the design was an attempt to convince decision-makers at the school that the development would meet their needs in order to secure the lease to build the remainder of the project. Still, it appears that there are many different benefits that will come from this.

If the Lukhanyo Hub becomes the site for wild food education then that controls the narrative of how UA gets done for all of the farmers who are educated at the site. If the government educates the farmers at Lukhanyo Hub then a different narrative of farming (centred around subsistence crops like beets and spinach) will be advocated. Furthermore, if a multitude of different farming techniques are taught and a variety of different advocates are allowed to teach at the site, then a more diverse view of UA will be presented. This has a dramatic ability to shape how UA is understood and “gets done” in the city of Cape Town, and upon replication of this model, across the country and other parts of the global south.

Of importance here was that the representative from NGO #2 and the farmer at LH greatly differed on what constituted UA. The representative from NGO #2 felt that the farmer’s methods, which reflected those employed by the City of Cape Town, were inadequate as a
model. In a sense these two represented the different framings of UA in the literature. The representative from NGO #2 was more focused on community benefits and knowledge sharing; whereas the farmer was more interested in using the network to leverage government to gain more land and increase production capacity. However, the farmer was also interested in the LH benefiting his community and his narrative about providing food for the local community was one that focused on helping the community through the provision of knowledge, jobs, and food.

6.3 Visions for the Distribution Model

The third theme that arose from the data regarding visions for urban agriculture at the Lukhanyo Hub was around the distribution model. However, there were many competing interests underpinning this discussion based on the various epistemologies of the participants. This discussion highlights divergent understanding of what constitutes a market, a tension at the root of understanding the purpose of urban agriculture at the Lukhanyo Hub.

6.3.1 Creating a Local Market

The first distribution strategy was to have a local market at the Lukhanyo Hub, which would serve the local community. Despite the emerging market scene across Cape Town, this phenomenon has not been reflected in the townships. Most of the UA NGOs around Cape Town sell their produce direct to consumers at markets in the suburbs or CBD. For low-income residents the informal food retail sector is an important contributor to the food security of the urban poor (Battersby et al, 2015). According to a policy brief from Battersby et al (2015), the majority of urban residents obtain their food from both formal and informal market sources.

The farmer stated that having a market was a major concern for Site C. He said, “Khayelitsha should [sic] have long time had their own market space, run by not-corrupt people. But there is no market space” (interview with the farmer on 6 March 2017). The farmer was very concerned with supplying food that local people ‘need/want’ such as spinach, which has been the sole crop of the school garden thus far and is one of the staple crops the City’s UA Unit supplies to farmers. However, somewhat contrastingly, he also stated he was very concerned with making this project financially stable, and aims to support people financially through the garden, and not necessarily feed them (interview with the farmer on 6 March 2017). The farmer presented a conflicting narrative in the sense that it was unclear whether he felt the purpose of the garden was increasing food access or raising funds. Given the narrative of the other participants, it seems impossible that the two could mutually exist, but it is understandable that he would be concerned about both.

The city representative from the Urban Agriculture Unit also mentioned a market. He said there were some markets, namely the Cape Town Market in Epping and retail options in the metropolitan area, but that they were often inaccessible to small-scale farmers (interview with
the representative of the City UA Unit on 1 March 2017). While creating a network could help to leverage access to some of these markets, as mentioned above, creating a small-scale market at the Lukhanyo Hub would offer in situ access to local produce for nearby residents and offer a direct, accessible outlet for local small-scale farmers to sell their produce. This would potentially allow local farmers to generate revenue for themselves, and increase food access to residents in the Site C area.

The representative from NGO #2 envisioned creating a farmer’s market for local farmers to come trade and create community space. She thought it would be a great place for young farmers to connect with each other, share information and sell their produce. She emphasised that this market should be a fun place where people and farmers would want to come, hang out and learn. She referenced the Ikhayalami Garden she worked with nearby. At Ikhayalami they have a teaching garden at the school and sell products at local market (the Impilo Market). However, in order to stay in business, they work in conjunction with the Uthando organization, run by several large hotels. This steady stream of funding allows the garden and market to stay economically viable whilst they try to spread the message of wild and slow food within the community. Although she noted a market might not be economically viable, she valued the opportunity it would present for people to engage with the garden and Hub, and the community cohesion that may develop from making use of a shared space. For her that mattered more than the economic element.

6.3.2 Selling Produce to Make a Profit

The second distribution strategy was to sell produce to either markets in the city or to retailers. The first would leverage the farmer network and organize a cooperative among the farmers, who could then create the consistency and volume that would allow them to work with supermarkets, which would be a longer-term strategy. The city representative from the UA unit said this would be beneficial to small-scale farmers because they currently lack access to larger scale distribution centres.

The latter would resemble Abalimi’s Harvest of Hope model, which supplies city suburban residents with weekly boxes of produce from the NGO’s various gardens in the Cape Flats, or the Oranjezicht City Farm, whose market operates at the V&A Waterfront every weekend and sells produce from urban and peri-urban areas of Cape Town to inner city and suburban residents. The developer said selling food in “a nice Cape Town middle class suburb” would yield a larger profit they could invest back into the garden (interview with developer on 20 April 2017). At the moment all farm workers are paid through a government sponsored program. If that continued, worker salaries wouldn’t be an expense so there would be more profits from the garden to be either put back into the garden or be redistributed throughout the development.

The developer thought this might be a potentially short-term strategy to get as much money out of the garden as possible for two years or so to make it economically resilient. He
said, “Historically that’s not how that happens” but “it might be worth losing short-term benefit for long-term sustainability” (interview with developer on 20 April 2017). It could also manifest as a long-term, social enterprise strategy where land is used to generate income for an NGO/NPO and then revenues are invested back into the development and community (interview with developer 20 April 2017). There was also talk of the network acting as a co-op where farmers in the network would group produce together to be able to sell to major local retailers like Shoprite (or Pick n Pay, Checkers or Woolworths), increasing access to market potential that would otherwise not be there.

The project manager stated he sees urban agriculture at the Lukhanyo Hub as a way to “check a box” (interview with project manager on 17 March 2017). His vision for the garden would be to sell produce or products to markets in Cape Town, since local food is trendy. They could sell products from the Hub and other farmers as “green township” products, which would garner a higher profit, and then redistribute the money back to the community (interview with project manager on 17 March 2017). He did not seem to find the idea of an onsite market or “selling through the fence” to be a feasible economic strategy (interview with project manager on 17 March 2017). Similarly, the landscape architecture student mentioned the potential of selling higher value products such as herbs or value added products like turnip bread to markets in the city. This model has been used by an entrepreneur who was loosely involved with the Hub whose spinach bread products have received widespread attention from media locally and internationally.

6.3.3 Significance and Conclusion

This narrative of the second distribution strategy, favoured by the project manager and the developer, was juxtaposed with the intentions of the farmer and the wild food NGO worker who advocated for a local market who advocated for a local market on the premises that would serve the surrounding area. However, the farmers own narrative had several contradictions. He wanted to provide food to people but he also wanted to provide people with an adequate income. This conflicting narrative underpinning the economic and distribution strategy for urban agriculture at the Hub are at the root of understanding the purpose of UA. The former discussion was informed more by a food security discourse, while the latter seemed to be informed by an economic or even social discourse which valued using UA as a funding strategy for the other functions at the Lukhanyo Hub. If the Lukhanyo Hub were to distribute value added products or sell outside of Khayelitsha there was the potential to make more money. However, if the goal of UA at the Hub was to bring access to resources, and a sense of community to Site C, then a local market would be better.

These two visions for the distribution model highlight a set of contradictory visions for what constitutes “the market.” At the root of this debate is a conversation on the purpose of urban agriculture. To some, the market was underpinned by economic frameworks, while for others it was a means of providing food security. This manifested in the divide between whether or not the Hub should include a local “market” where farmers at the Hub and in the farmer network could sell their produce to the local community, or alternatively if they should use urban agriculture as a revenue stream to fund other initiatives at the Lukhanyo Hub that would benefit
the community. These contrasting visions impacted which products the garden would grow; for example, the food security framework valued subsistence crops like beetroot or spinach; whereas the economic model advocated for value-added products or high-value crops such as turnip bread or herbs. In a sense these visions follow the pattern of the various advocacy positions that underpin the literature on urban agriculture in the Sub-Saharan Africa – highlighting food security, economic, and social framings as well as the need to overcome broader challenges that urban farmers face.

In 2.2.1, this dissertation stated, “UA is seen as a solution to food insecurity and a means to address urban poverty by enhancing livelihood opportunities (Ellis and Sumberg, 1998; Nugent, 2001; Mougeot, 2006; Foeken, 2006; Simatele and Binns, 2008; Golden, 2013) either through subsistence farming or through the sale of produce (Battersby and Marshak, 2013)”. Therefore, traditionally, UA was viewed as an economic strategy to benefit farmers directly either through food or profits. Here UA would be used to feed the community or generate income to redistribute the profits to address other community needs. Ultimately, it will need to be determined if money for the development of food access and social benefits take priority.

6.4 Worlding Khayelitsha: Creating a Replicable Model for Mixed Use Urban Agriculture

The developer’s visions for the Lukhanyo Hub were informed by an interest in creating a flexible hub model that could be replicated in various parts of the world. As such, the developer claimed that in his visioning for the Lukhanyo Hub there were always “two heads” involved – looking at the local context and looking at global paradigms for “ universals” which can be included in their model (interview with the developer on 20 April 2017). He said, “You start the process by looking at the most progressive, optimum urban environments so you have to think about places like Singapore and Gardens by the Bay, or you know, garden cities (which work quite well) or other examples within urban development and then you [ask questions about what people need]…. then what are those elements which are kind of universal, because it’s always generally pretty much the same… you don’t create a great big ginormous building and find someone who thinks oh yeah that’s really where I want to live… I’m not going to want to live in an enormous town with no public spaces, terrible transport links, a long way from my work, and no control of my environment, it’s basically universal… and suddenly Khayelitsha isn’t so different to Singapore” (interview with the developer on 20 April 2017).

The developer claimed that people have a problematic mind-set in that they think of places like “Cape Town, and the Cape Flats, and other comparable under-resourced areas and [have a] completely different expectation about how this environment should be, and [sic] it’s like personally I find that repelling, I think it’s ridiculous. It doesn’t answer/present any long-
term solutions to those problems... you’ve got to work with what you’ve got. See, Khayelitsha, is an aggressively, negatively designed space, [but] how can that be adapted in a way that can create the best healthy environment and community and all of those things” (interview with the developer on 20 April 2017). The objective, he said, is to identify these universals for a “healthy, vibrant environment” and then figuring out how to contextualize these universals (interview with the developer on 20 April 2017).

The developer argued that “the key to this is to look at the framework scale, or the urban design and urban planning scale, because if you just focus on one little site and you forget that it’s part of a system, if you don’t understand the system there’s a very good opportunity you’re going to create something that is not nearly as good as it should be and could even be problematic… and you could perpetuate the problem” (interview with the developer on 20 April 2017). He adds that trying to create a model that’s both the right system for the Lukhanyo Hub and plays into a model that is applicable elsewhere – Johannesburg, Lagos, London, Berlin, or wherever else – makes it more difficult and more interesting, and it definitely makes the scrutiny tighter (interview with the developer 20 April 2017). As a result, the developer notes there will be a very clear process to go through with enough flexibility to respond to different contexts, those contexts including different people, communities, environmental factors, security conditions, and economic models (interview with the developer on 20 April 2017). This visionary thinking attracted widespread interest from NGOs from various fields, including UA, got investment from companies and government, and buy-in from the team.

The other participants generally responded positively to the developer’s vision to replicate the Lukhanyo Hub. The city planner and the representative from the City’s UA unit saw replicating the Hub model around Cape Town as a method for addressing lags in the city’s capabilities with upgrading vacant land, and service delivery for UA projects, respectively. They thought that having a centralised place that government could use to distribute resources to the community would take a lot of pressure off of government. For example, if someone needed a shovel for their garden they could come to the Lukhanyo Hub and rent a shovel from the municipalities stock housed there. The centrality of a Hub would save the City’s UA unit from needing to individually visit each person interested in UA.

The farmer saw the replication of the Hub as a way to have more gardens and offer more community services and provide more food to people. He was interested in replicating the Hub, but in his vision the spatiality of the Hub was focused on the the local community and within the Cape Town metropolitan region, and not necessarily around the country or the world. It could be inferred from this narrative that the farmer’s connection to the local community, and the fact that his own livelihood was tied to the existing Hub’s farm
concentrated his interests on the local community in the way that the developer and others did not.

The representative from NGO #2 was interested in spreading the message of “wild food” by incorporating it into the urban agriculture model of the Hub. She argued that although wild food was becoming popular amongst the high-end chefs and hipsters in Cape Town’s CBD, eating indigenous produce was still stigmatised in the townships. She believed that having a central space that people would come and could engage with a wild food garden would help spread the message of wild food. Furthermore, if this idea could be attached to each Hub as it was replicated across the city, province and country then she would be even more capable of spreading her message.

However, although these participants were interested in replication around the City of Cape Town and possibly South Africa, they did not necessarily share an interest in creating a model that could be replicated across the world. In fact, the farmer declared one during a farm team meeting that replication is good but, “we need to focus here, on our garden in Site C before going elsewhere” (farm team meeting field notes 11 November 2016). In fact, there were several instances when the developer brought up transporting this concept to a multitude of destinations across the global south, but the farmer, the city planner, and the other members had a much more localised vision for the Lukhanyo Hub’s growth process. While the rest of the participants in the development process did not necessarily share the epistemology of the developer, the push for creating a replicable model impacted the vision to create a farmer network that would tie into various Hubs as they were replicated across the Cape Flats.

The developer’s epistemology ties directly into the concept of “worlding” that was introduced in Chapter 2. This concept highlights the transnational flow of ideas, visions and concepts, particularly as they flow from cities in the Global North to the Global South. The literature indicates that this mode of thinking often has problematic results. Most studies indicate that visionary plans for world-class or sustainable cities in Sub-Saharan Africa and elsewhere ignore the specifics of the lived realities of the urban poor and can have serious implications for their lives and livelihoods. This is often followed by a call for more place-based and participatory co-development processes.

The developer claims that each Hub would be contextualized to fit the local context; however, so far steps have not been taken to make that happen. Worlding is a concept discussed in great detail in Southern and African urban theory, and the literature on this subject (as related to this dissertation) has been explored in Chapter 2. Of particular importance is the idea shared by the developer that Khayelitsha is no different than Singapore, and that actually it is problematic to think of it that way. In a sense this notion is backed up by the research of Jennifer Robinson who argues that we must consider all cities to be ordinary to that they all have an equal playing field in the global system (2006). However, the literature also indicates
that not considering the specific particularities of African urban environments is detrimental to sustainable development. Overall, it seems that the role the community will play in this process will be critical for contextualizing new ideas of urban agriculture into the African context. To date, at the Lukhanyo Hub that has not happened. Perhaps once they secure the lease and can receive more funding to do research that will change. This is discussed in Chapter 8.

6.5. Conclusion

In summary, the developer’s vision was to create a replicable model of mixed-use urban development that included urban agriculture in order to meet an array of development needs. The farmer was primarily motivated by economics and benefits for his community. The project manager envisioned urban agriculture as a “greenwashing” strategy in order to generate economic revenues for other elements of the Hub. The city planner and the landscape architecture student were motivated to use urban agriculture as a transitional model of land use. The representative of NGO #2 was concerned with social and educational aspects of the design. Finally, the the representative from the City’s UA department was motivated by a desire to ease service provision to current and potential stakeholders in Cape Town’s urban agriculture program.

In terms of the spatiality of each stakeholder’s vision for UA at the development there was a divide between a focus on the global vs. local, or a situated vs. globalised view. The developer, who was a foreigner, had a global view for the developer and a globally informed view of urban agriculture. In contrast, the city planner, UA rep., farmer, and rep. from UA NGO #2 were more focused on the local area. It appears their connection to the space informed their vision of the Hub.

Furthermore, the role the state, civil society organizations and community differed in each stakeholders’ vision for UA. The developer, the city planner and the representative from the City’s UA Unit were focused on working with government and operating in a public-private partnership capacity. These actors were also concerned with civil society organisations – particularly the developer who had reached out to several other organisations for potential partnerships and for advice. The farmer’s interest in government centred around gaining political capital to leverage access to government land. The NGO representatives were focused on working with civil society organisations and the community. The others were not necessarily unconcerned with the community but lack of engagement largely left their input out of the visions presented. This is discussed in detail below.
Chapter 7: Challenges and Critiques

The Lukhanyo Hub project faced several challenges and critiques that seemed to impact the realization of the initial plans for urban agriculture. Here they are somewhat artificially divided them into three key themes:

1. a funding paradox
2. lack of community engagement
3. critiques of leadership

They each generally highlight a theme of top-down development, often characteristic of visionary development, as shown in the literature on the new-build, sustainable cities in Africa covered in Chapter 2. Each of these illustrates issues involved in the practical integration of new ideas and concepts for UA into the African urban context. This chapter discusses these before launching into a brief discussion of the future of the LH project and how the development team plans to avoid further problems going forward in Chapter 8.

7.1 A Funding Paradox

A fundamental challenge for the project was the gap between securing funding and research. In order to secure funding the developer felt it was necessary to present an elaborate vision to the community and other NGOs but doing so was heavily critiqued. Several times during the charrette and in the interviews concerns were raised regarding the development process and how it seemed the team was “putting the cart before the horse” (interview with the representative from NGO #2 on 6 April 2017).

The representative from NGO #2 and the Landscape Architecture professor both agreed that on a conceptual level there was great potential for the project; however, more research was needed in order to create a project that responds to the particular place it is situated in. This could include a needs assessment of the community and/or investigation into current infrastructure in the community. The landscape architecture professor was concerned about the rushed nature of the project and felt the team failed to ask how all of the elements of the mixed-use design would hold hands (interview with the landscape architecture professor 20 January 2017). The representative from NGO #2 expressed concerns as stated above; however, she did also comment that she saw the utility of designing a building first in order to start a conversation about what to do next (interview with the representative from NGO #2 on 6 April 2017). Still, she retained that more community input and research was essential for the project to be successful (interview with the representative from NGO #2 on 6 April 2017).

The funding paradox also manifested in relations with the school and in the trouble
securing the lease. The development team was unable to secure funding without a lease for the land, and the School Governing Board had several financial requests from the team before they would agree to the terms of the lease (interview with the project manager 17 March 2017). Specifically, they wanted several upgrades to happen to the school in exchange for signing the lease. The developer noted that they would not be able to produce anything tangible for a significant amount of time, which the SBG felt might not be worth their while (interview with the project manager 17 March 2017; interview with the developer 20 April 2017).

Commenting on the lease struggles, the developer said,

“When you start you’ve really got to be quite bold and say ‘this is what could happen’ so that you can get your funding so that you can do the proper research; otherwise, people won’t want to fund you. So we created enough content, value enough substance, of people, place, and obviously we built a lot already but that was out of our control, so we made sure that was done to the best view in the team’s mind… and now we’re basically just going to stop” (interview with the developer 20 April 2017).

Furthermore, he noted that perhaps he had falsely given the perception to the author and others that the specifics of the Hub design had been predetermined and that this was just another top-down, white elephant project. He expressed that this was still a likely possible outcome, but that the team was doing everything in its power prevent that. Admittedly, this perception was held by the author until the last month of data collection, and the final interview with the developer. Prior to this conversation there had been little to no indication from him that the renderings shared or the wooden model brought to the charrette were part of a dynamic development plan. The evidence seems to indicate that this might not have been true, especially since significant funds had been spent on modelling and rendering designs. It seems, rather, that consistent delays in the progress of the development forced the Lukhanyo Hub stakeholders to reassess their plans.

7.2 Community Engagement

A key challenge throughout this project was engaging with the community. This began with the problems the developer and the city planner faced with the BT community during the implementation of the initial community garden. Recalling the first time he met the developer, the farmer explained that as he and the two community representatives on the UA team arrived at the site, several members of the BT community and the developer were arguing over the fence surrounding the garden. As they approached, he heard community members shouting, “Nothing will go up here; no garden will go up here!” (interview with the farmer on 6 March 2017). It seemed the problems facing the original community were still plaguing the school garden; however, the farmer indicated that he has been able to communicate with many people from the BT community since, and there have been no more problems (interview with the farmer on 6
March 2017). He indicated that because he knew how to communicate with the community members in their language, and because he was from the local community and they respected him, he was able to convince them to support the project.

Yet, problematic dynamics continued between the developer, the school’s principal and School Governing Board (SGB). In relation to community engagement it became clear through interviews with the developer that a key struggle of working with the community was feeling like he was getting taken advantage of due to his position as a white foreigner. He said, while negotiating plans for the lease, “I got driven to a car park by two SGB members and was made to feel that unless I gave them money they wouldn’t agree [to the lease]. They said they needed it for the meeting with the parents and transportation. I gave them R450” (interview with the developer on 20 April 2017). The developer explained it’s actually sensible behaviour, but, contrary to the beliefs of the SBG members, the development team didn’t have the means to accommodate their requests, linking back to the funding paradox discussed above. Still, it does seem more could have been done to include the needs of the school into the designs.

Rocky relations with the school kept the principal, faculty and members of the SGB from being included in the charrette. As discussed previously, participants, at the charrette in particular, were confused as to how the Hub could include several aspects of education without sufficiently engaging the users or experts in those fields in the process. Overall, a significant number of participants from different backgrounds (academia, the built environment, and NGO-sector) raised concerns regarding the paucity of engagement with the surrounding community; particularly whilst other efforts were being made to engage with more tangible elements of design such as infrastructure, wooden models, digital renderings, and funding.

7.3 Leadership Critiques

Finally, there was some criticism expressed, particularly from the landscape architecture professor and from the representatives of NGO #1 and #2, regarding the developer and his approach to the project. Overall, it was clear the developer had gained support of his team. The city planner said that often the more grassroots projects lack momentum, and he was impressed with the developer’s accomplishments (interview with the city planner 16 January 2017). Moreover, the farmer commented several times that he was fully behind the developer and valued their efforts as a team (interview with the farmer on 6 March 2017). However, even within the farming team, it was apparent that his personality was abrasive and missionizing. At times he slowed down the development process - particularly regarding his communication with school leadership and the community.

The landscape architecture professor in particular was quite vocal about his critiques of the developer and his approach. He stated that the developer was full of “arrogance and hubris”
and was “driven like a dog in heat” (interview with landscape architecture professor on 30 January 2017). The professor noted that the developer’s concerns were often narrowly focused, and didn’t expand beyond what he wanted in the project. He was even critical of the mixed-use design and claimed it was unfair to try and concentrate everything a community might need on one site (participant observation May 2016). This would overburden the community and congest the surrounding area. Similarly, the representative of NGO #1 surmised that the developer’s primary objective was the fame that would come from making this project successful and tacking his name on something that could be replicated around the world, rather than actually investing in the Site C community (interview with representative from NGO #1 on 18 January 2017).

By way of a response the developer stated, unprompted by the author, “People think I’m a complete… well I don’t know… I think to [the landscape architecture professor] it appears I’m just making all the big decisions and driving it, which is true in some ways, but it’s also not true in other ways. All my motivations have been to bring resources and people and to create something with visions to do it properly.” The developer even candidly called himself an egomaniac explaining how, “sometimes you need an egomaniac to get things going but the key is that that person knows when to step down”. However, he noted, that he was already in the process of transitioning himself of the lead developer role and leaving the other team members to take over.

If the farmer were to be able to manage UA at the Lukhanyo Hub as it develops into the large network that is anticipated, that would be a paradigmatic shift for racial dynamics within urban agriculture in Cape Town. However, at the present moment, things don’t seem to be different for this project. The developer is white and his partner in RCDC, who is referred to here as the landscape architecture, is also white. Furthermore, the project manager and the charrette facilitator were also white. It is problematic that the lives and livelihoods of primarily black residents of Khayelitsha are being shaped by white, and in the case of the developer foreign, “experts”. Without proper management, it is impossible to understand the complex needs of the residents of Khayelitsha, much in the same way postcolonial Southern and African scholars have challenged Euro-centric theories.

Chapter 8: Next Steps - Co-Development Approach

The narrative of this development process changed significantly from the outset of the project to the completion of the data collection. The author asserts that conversations with academics, the discussion during the charrette, and difficulties in implementing initial plans, encouraged the development team to consider and engage in a more participatory co-development process before moving forward with the project. The current trajectory of the project suggests that the development team will be conducting workshops and research in partnership with the provincial government as well as independent researchers towards that end.
The developer stated that the question of identifying real needs is complicated, as is identifying core users. Furthermore, the developer expressed that figuring out how to make a model that is sustainable over the next year, and the next five years was a key concern. Therefore, he determined that this process will be done by an outside NGO that has more extensive experience with participatory planning processes. Maintaining his vision that this should be a globally-informed process, the developer said it is imperative to include non-South Africans in participatory planning “because the system should be an international system” (interview with the developer on 20 April 2017).

In discussing this approach, the developer stated that the fields of the built environment have historically been characterised by being disconnected from the user. He said, “programs get driven by the architecture or by the infrastructure and services, and it’s the wrong way around.” Building on this, the developer said there is a historical and problematic tendency of “built environment people not wanting to talk to the users… [with] experts coming in and pretty much prescribing what should happen and being very techonistic, not considering the user… [sic] apart from, you know, the participatory process often being really quite superficial [there are some] which are fundamentally quite intimidating to a lot of people” (interview with the developer on 20 April 2017). On the other hand, there are practitioners in fields who engage with “users” all the time, but there is not enough interdisciplinarity between the two (interview with the developer on 20 April 2017). The developer said that in this process built environment practitioners should be used only as a tool to assist co-development, and to inform thinking. For example, he says, the charrettes should remain “one part of the co-development process in order to assist with technical skills” (interview with the developer on 20 April 2017).

In order to start breaking down this system, the developer sees, in what he says is admittedly a utopian way, that this project could include and help catalyse the potential future designers of and from Khayelitsha. He said, “if you think about it, there’s more built environment people in Italy than the whole of Africa, and in a rapidly urbanizing continent, it’s shocking that it’s very white dominated in factions across that space.” Including students in this space, and having them engage with people in the built environment through a successful co-development process, could have a long-term impact on breaking down these factions.” The developer stated, “Those kids will be involved in every step of the process. Because it’s them. They will be occupying it now and as adults when they leave. So now we need to create a system that actually involves them and isn’t just lip service to them” (interview with the developer 20 April 2017).

There is a strong emphasis in both the literature on planning the the Global South and planning and urban agriculture that emphasises the importance of co-development and participatory planning processes (Watson 2014; Dresher 2001). van den Berg and Leo (2000),
conclude that “In order to understand the urban and peri-urban planning process one needs to know who the stakeholders are and how they manage to have their interests reflected in the plans that are implemented after all” (in Dreschler 2001, p. 7) As mentioned here by the developer, and in the literature review, there is a history of experts in the built environment imparting ideas on communities without concern for the context, particularly in cities of Sub-Saharan Africa (Watson 2014). Watson, like the developer, says that planners should merely be a tool in the co-development process and not all-knowing experts (2014). In doing so, the onus of development should “shift from central government control and the international realm to local personnel and institutions concerned with urban issues” (Dresher 2001: 7). Therefore, it will be interesting to see how the co-development process intersects with the developer’s visions, which emphasise looking to global contexts for visions.

The developer said,

“The opportunities to get this wrong are massive. The most likely outcome is that it’s another white elephant. But actually, we are doing things very differently to how things have been done. It’s only now that we’re starting to see what’s the best chance of getting it right, and there are still risks. That’s why we’re applying for substantial research funding, and that’s research by design, research by doing, and so we’re connecting to researchers with established experience in this field and look through all of the stuff that’s been collected so far and work out how to do it.” (interview with the developer 20 April 2017).

The execution of this process will be critical to its success. African cities have seen, and continue to see, foreign investment and the implementation of foreign ideas and concepts onto the urban landscape. As discussed in the theories of Southern urbanism, African urbanism and critical urban planning, this process of worlding African cities to meet the expectations of a paradigmatic world class city is often detrimental to the livelihoods of African urban residents. As such, African urbanists and southern scholars argue that participatory planning and co-development processes are critical to avoid problematic results in urban development. The author argues that done intentionally, in accordance with the guidance of trained researchers, the outcomes of the Lukhanyo Hub project may be efficacious; however, it is unclear when this process will begin and what it will entail due to the lack of funding.

Chapter 9: Conclusion

The link between urban planning and urban agriculture is a relatively new and growing field well worth exploring. This case study has provided keen insight into the complex process of implementing these new urban agriculture concepts in the African context. The results of this case study show that the first attempt to implement new forms of urban agriculture at the Lukhanyo Hub project faced several challenges and critiques. There were problems
implementing the project according to the scheduled timeline due to trouble securing a lease from the school. In order to convince the school to sign the lease, and in response to critiques, the team opted for a more participatory, co-development approach. The author argues that done intentionally, in accordance with the guidance of trained researchers, the outcomes of the Lukhanyo Hub project may be efficacious; however, it is unclear when this process will begin and what it will entail due to the lack of funding.

As defined in Chapter 1, the purpose of this study was to employ the Lukhanyo Hub project as a descriptive case study to examine how new forms of urban agriculture, framed by urban planners were translated into the urban landscape in Khayelitsha. This dissertation asked:

1. How do each of the actors articulate the purpose/function of urban agriculture?
2. What is the spatiality of their ideal urban agriculture and why?
3. What is the role the state, civil society organizations and community in that vision?

The resulting visions employed by the participants in the study centred around four themes: education through the creation of an urban agriculture training and environmental education centre, which was shaped largely by the location (on the school land) and the funding from the WCED; a farmer network, which tied into literary themes, from both the discourse on UA in the GN and GS, around empowering urban producers through social cohesion (Olivier 2016) as well as overcoming insecure land tenure (Tevera, 1996; Dreschel and Dongus, 2010; Van Averbeke, 2007; Crush et al, 2011); a distribution model, which highlighted two distinct ways of perceiving a market either through increasing food access and providing social benefits, or through an economic/revenue strategy that focused more on generating profits for reinvestment into the development. Finally, there was a large discussion around the developer-driven vision to create a replicable hub model that can be inserted into varying contexts. This vision was underpinned by the rhetoric of the “world class cities” or “worlding” framework discussed in the literature review, which describes the process of development norms flowing to cities of the South, and responding efforts to mould these cities in the image of “world class cities”. This vision may come to head with the rest of the team or are more focused on seeing this model thrive in a localised way. The city planner, the urban agriculture representative, and farmer, in particular, were much more focused on the local issues: replicating the Hub as a means for redeveloping vacant land, easing service provision, and creating a farmer network. he charrette provided a key moment to engage with the processes involved with translating the Lukhanyo Hub to the African context, and examining the intersection between the visions of the built environment practitioners and the community, or users. Of particular importance here was the critique for more engagement with the users or the community, before engaging with physical elements of the design.
Chapter 2 documented the literary framing of urban agriculture in Sub-Saharan Africa. It then highlighted the growing interest in UA from urban planners. The intersection of these two fields has created new forms of urban agriculture that combine food production with contemporary built environment ideals and visions. Many of these designs and plans are still conceptual; however, these concepts have increasingly been transported to cities in Africa, challenging previous conceptions of the purpose and potential of urban agriculture in the African context. This chapter draws on critical scholarship produced in the Global South on sustainable cities in Africa, and a longstanding body of scholarship that engages with uncritical application the flow of Northern ideas to Southern contexts. There is a critical need to examine how urban agriculture is translated into the South as cities in Africa attempt to be mould themselves in the image of cities in the Global North. Given the dearth of literature on this subject and the problematic history of built environment visions being translated into the African context, research on emerging examples of such phenomena must be critically analysed, and this case study is a step in that direction.

Chapter 3 provided details on the methodology, which was a qualitative approach comprised of semi-structured interviews and participant observations. Chapter 4, described worlding in the context of the City of Cape Town. This included a discussion of the city’s recent attempts at becoming a sustainable city as well as a discussion of the extremely high levels of inequality. This moved into a brief overview of the complex history of racial and spatial segregation of Cape Town that create the township of Khayelitsha.

Chapter 5 includes a discussion of the background and process behind developing the Lukhanyo Hub. The Lukhanyo Hub, which arose from both a settlement upgrading project and an urban garden, had roots in the built environment and urban agriculture. Driven by a desire to meet the needs of the community in the face of mounting challenges and rapid urbanization, the developer chose to use the vacant land at the Itlanganiso Secondary School for a mixed-use, sustainable development that catered to a variety of users.

Chapter 6 detailed the results regarding the visions for UA at the Lukhanyo Hub. Overall, the visions have been narrowly focused in relation to the context of the school garden and possible replication throughout the City of Cape Town. Four themes for urban agriculture have resulted from the interviews with participants including a farmer network, an urban agriculture education/training centre, a model for distribution, and a replicable model. In summary, the developer’s visions were underpinned by a world cities framework, as he was motivated to create a replicable model of mixed-use urban development that included urban agriculture. The farmer was primarily motivated by economic benefits. The project manager envisioned urban agriculture at a “greenwashing” strategy in order to generate economic revenues for other elements of the Hub. The city planner and the landscape architecture student were motivated to use urban agriculture as a transitional model of land use. The representative of NGO #2 was concerned with social and educational aspects of the design. Finally, the representative from the
City’s UA department was motivated by a desire to ease service provisions to current and potential stakeholders in Cape Town’s UA program.

Chapter 7 examined the critiques and challenges that arose during the data collection and development process. These manifested into three themes which centred around concerns of top-down development: a funding paradox, problematic community engagement, and critiques of the leadership. These challenges and critiques informed the following which discussed the next steps for the development process for urban agriculture at the Lukhanyo Hub. It seems that these challenges and critiques have forced the development team to engage in a more relaxed, participatory process of co-development before continuing with implementation. While there were several criticisms of top-down development, the developer seems committed to quelling those concerns by undertaking a comprehensive participatory, interdisciplinary approach involving experts in participatory process, academics, and NGOs to conduct studies of the local communities to determine who the clients are, what they need most, and how best to coordinate these competing agendas in one space before continuing with development. Through this process, the developer remained committed to making this a transnational process stressing the need to include participants from outside South Africa in the co-development process.

The challenges and criticisms faced by this project and the fact that it was not completed according to plan provides additional validation for the importance of this research and underscores why it is essential to look at the development process through the lenses of various discourses in interpreting how things were done. As Chapter 8 explains, the author argues that because the development was stalled the visions and approach for the project were shifted, and thus the development team decided to pursue a more participatory approach. This case study of the Lukhanyo Hub project provides an entry point for the research that will be done going forward. Time and further research will tell how the visions are realized, and how this impacts the long-term sustainability and success of the project.
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