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Urban Commons: Reestablishing Social Ties in African Cities

Stéphanie Leyronas, Alix Françoise, Isabelle Liotard, Lola Mercier, and Guiako Obin

Introduction

Africa is simultaneously the world's least urbanized continent and the one with the highest demographic growth rate in urban areas. Its current urbanization rate is estimated at somewhere between 42.5 percent (UN 2019) and 50.4 percent (OECD and SWAC 2020) of the continent's total population. Since the 1950s, the average urban growth rate has been 4.8 percent per year. Africa's urban population therefore grew more than 16-fold between 1950 and 2018, increasing from 33 million to 548 million people. This trend is expected to continue with a tripling of the urban population by 2050, representing some 1.5 billion people (UN 2019). This rate does vary by country, and its impact is especially noticeable in countries with a low level of urbanization (such as Burundi, Lesotho, Malawi, Niger, and South Sudan). Here, the growth rate currently exceeds 7 percent, implying that the population will double every 10 years (OECD and SWAC 2020).

Most of Africa's national urban systems are dominated by large conurbations, and this trend is growing. The population of Luanda (Angola), for example, is the equivalent of that of the country's next 27 largest conurbations combined (OECD and SWAC 2020). At the same time, a network of secondary conurbations driven by national local development policies is being shaped. These medium-sized cities, often the capitals of agricultural regions, are also increasing in size because of natural growth in the population and, to a lesser extent, internal migration.

Urban development in Africa has long been a priority within the international aid community. Two significant milestones in the international governance of urban growth were the United Nation's (UN's) 2015 Sustainable Development Goal 11 to create sustainable cities accessible to all and the New Urban Agenda (UN-Habitat 2015) seeking to make cities safer, more resilient, and more sustainable, adopted at the Habitat III conference in 2016.

Public financial resources are rare so local communities must engage in new forms of governance that involve a myriad of different stakeholders from cities and the urban sector. Some consensus has been reached about the many diverse stakeholders (public, private, nonprofit, political), policy areas (land, housing, infrastructure), and scales of response (local, city, national, and international) involved in shaping cities, as well as how urban areas in Sub-Saharan Africa should be constructed and managed (Schlimmer 2022).

This chapter examines commons that have emerged in urban settings as one expression of these social, economic, political, and spatial phenomena. Its analysis draws on interviews with the stakeholders of urban commons in Sub-Saharan Africa, as well as a review of the academic literature and documentary research (websites and social networks, local and international media).

The first section sets out exactly what kind of activities can be classified as urban commons in Sub-Saharan Africa. These public or private places are shared by local residents who develop diverse uses for them. They involve a multitude of different stakeholders operating under various forms of open governance, and a variety of tangible and intangible resources from the local area are used by different groups.

The second section provides an empirical analysis of some of these places (hybrid cultural spaces, playing fields, shared gardens, fab labs¹), while the third and final section proposes what role they could potentially have in fashioning urban environments in Sub-Saharan Africa.

Urban Commons in the Context of Sub-Saharan Africa

Urban Fragmentation and the Loss of Social Cohesion

Against a background of high demographic growth, African cities contribute to improving their country's economic performance, as well as improving living standards. In a recent report, the Organisation for Economic Co-operation and Development (OECD) revealed that urbanization in Africa has contributed to approximately 30 percent of the increase in gross domestic product (GDP) per person achieved over the past 20 years (OECD, AfDB, and ECA 2022). Moreover, living standards, the amount of time spent in education (8.5 years compared with 4.5 years on average), and professional achievements are on average higher for people living in urban areas than elsewhere in the same country. Wealth distribution by quintiles indicates that a growing share, and sometimes a majority, of the population's richest individuals live in large cities. The OECD also notes a knock-on effect in areas located near cities (OECD and SWAC 2020).

Despite these developments, in reality, Africa's urban economies have changed little over the past few years. They have not diversified to any great extent. Manufacturing has transformative potential for numerous regions in

this continent (Abreha et al. 2021), but it remains underrepresented as a sector, unlike in some Asian countries (China, India, Malaysia). Urban economies must also deal with the structural challenges (such as building human capital) and operational costs of these cities.

Governance is a major challenge. Africa's local authorities struggle to plan for investments or provide essential services because of financial, institutional, and technical weaknesses. Cities are growing quickly but lack vital infrastructure investment. Some districts, particularly on the outskirts, have expanded rapidly without being connected to road networks or basic public services. More than half of the urban population in Africa lives in this kind of vulnerable neighborhood (UN-Habitat 2015). Moreover, major cities are facing significant transport challenges with high levels of pollution and congestion; government stakeholders are struggling to protect public sites, particularly green spaces; and urban dwellers, vulnerable to climate hazards, are already experiencing phenomena such as heat waves, water shortages, and flooding to a greater extent (Dodman, Hayward, and Pelling 2021).

These shortcomings are causing African cities to become spatially, socially, economically, and politically fragmented. As a result, the social fabric within communities, as well as between local populations and government institutions, is often torn (European Commission and Enabel 2021). This contributes to the severing of social ties, that is, personal relationships within the same society, mutual levels of trust, and norms of reciprocity (Colleta and Cullen 2000; Garroway 2011).

With regard to Nigerian and South African cities in particular, Fourchard suggests that, although these cities do provide jobs, they have also quickly generated "new forms of poverty and social violence (unemployment, crime, abuse, prostitution, gangsterism, and procuring), as well as problems over the integration of migrant populations" (Fourchard 2018, 7). Geographical origin (whether someone is part of the indigenous or migrant population) forms the basis for exclusion that, in some instances, has been institutionalized and politicized. These cities are "laboratories for exclusion and the use of violence" that is sometimes physical (Fourchard 2018, 8). According to the anthropologist Balandier, this leads people living in urban environments to retain close ties with their original social circles and villages so as to find support in those existing forms of solidarity. In doing so, they "return to a community, and find the material assistance they would not have found elsewhere" (Balandier 1958, 21).

The emergence in Africa's cities of commons whose remits cover a wide variety of resources is evidence of a desire to strengthen new social ties within urban communities. These commons are run by groups of different sizes and kinds (locals, residents, users, entrepreneurs, specialists) working within a broad spectrum of urban life: land, public services, welfare, and education.

From Commons in Cities to Urban Commons

In this instance, we have focused on places that are physically located within urban sites and communally managed by groups with a social, economic, and political vision for these spaces that reshapes the local area as a sociopolitical construct. Their project might focus on welfare and improving living conditions (shared gardens, playing fields, community halls) or access to art and culture. They may also specialize in science, innovation, and digital technology (spaces for technological innovation and production such as fab labs).

The urban commons we have examined overlap in numerous ways with “third places.” This notion was coined by the sociologist Oldenburg in 1989 and refers to the places that sit somewhere between home and work and that contribute to urban sociability (Fabbri 2016). The people who visit them (Lofland 1998; Oldenburg 1989) create their sense of community, their accessibility by other individuals, and, thus, their collective dimension. In the context of Sub-Saharan Africa, we prefer the term *hybrid places* as the concept of “third places” is little used by African stakeholders (Besson, forthcoming).

African urban commons are multifunctional by their very nature and combine a number of different purposes:

- Services (food production in shared gardens, intermediation services, access to material and equipment, access to artistic endeavors)
- Educational and dissemination activities relating to the collective aim pursued (adult education, organization of events, lessons and workshops, gatherings)
- Activities focusing on sustainable cities and resilience (waste-to-energy conversion and renewable forms of energy)

Urban commons are also a testament to a relatively recent phenomenon, the “Africanization” of the maker movement, as evidenced by the growing number of fab labs in Sub-Saharan Africa over the past decade (Mboa Nkoudou 2017). These fab labs are diverse spaces and specialize in specific areas (agriculture, education, disability). They are local experiments that are sometimes organized informally and spontaneously. It can be difficult to grasp their significance fully because their stakeholders can only be identified through detailed field research. They mostly come from working-class and challenging social backgrounds.

Urban Commons: Theoretical Perspectives

Urban commons are not only characterized by their location or their concentration in cities (Susser and Tonnelat 2013) but also by (a) the construction of a common purpose capable of motivating stakeholder cooperation, (b) participatory systems to ensure users are included in joint deliberation and joint decision-making activities, and (c) a vision of urban areas as a communal space where individuals can create urban commons.

Urban commons emerged during a relatively recent phase of the debate about commons (Festa 2016). Their genealogy is fairly specific, forming part of the new commons that Hess proposed to map (Hess 2008). The concept was developed in Europe where several cities witnessed the development of shared management practices. In Italy, the 2011 movement to occupy cultural sites demanded the “right to the city” (Lefebvre 1996) that was supposed to produce an accessible public space. Many of these forms of urban resistance can be traced back to opposition to the confiscation of communal resources abandoned or reused speculatively (cinemas, theaters, sites for living and producing). They shone a light on how physical and symbolic urban spaces are used and questioned local governance systems and the link between citizenship rights and those relating to urban life (Gervais-Lambony 2001; Lussault and Lévy 2013). The focus was no longer on who owned the space but the function that space should have in society (Rodotà 2016).

The resources used included public or private property (parks, gardens, streets, squares, infrastructure), intangible commodities (the air), and immaterial commodities (intellectual property, information networks, social networks, cultural values and those relating to heritage). The particularity of urban commons is that they are deployed in places where certain resources are highly sought after (i.e., sites with high land and property prices, a variety of uses, or a high population density). Harvey (2012, 80) maintains that they display the same contradictions as the other commons but “in highly concentrated form.”

As recalled in chapter 1, how a resource is managed is more important than its type (Bollier and Helfrich 2015). At the heart of urban commons are heterogeneous communities with open and fluid dividing lines that are sometimes very changeable. This distinguishes them from the more typical commons that were studied in great detail by Ostrom and the Bloomington School (Ostrom 1990). These urban communities form through a process of pooling their resources and can evolve in both time and space (Festa 2016). Within the community, commitment to a place can sometimes vary: small groups run the common on a day-to-day basis, while larger groups enjoy some of its uses and participate in its collective management in a more ad hoc manner. Different interests can therefore coalesce around managing commons. Some more complex urban commons involve different interest groups (civic, private, institutional) and therefore require intersectoral collaboration and long-term processes to achieve true participatory governance (Kip 2015).

African Commons Embodied by Social, Cultural, and Technological Spaces

Little detailed research exists about African urban commons (Besson 2018; Cléré 2018). We propose dividing the urban commons we studied into two types, although the line separating them remains porous: predominantly

social or cultural urban commons, on the one hand, and urban commons for technological innovation and production, including fab labs, on the other.

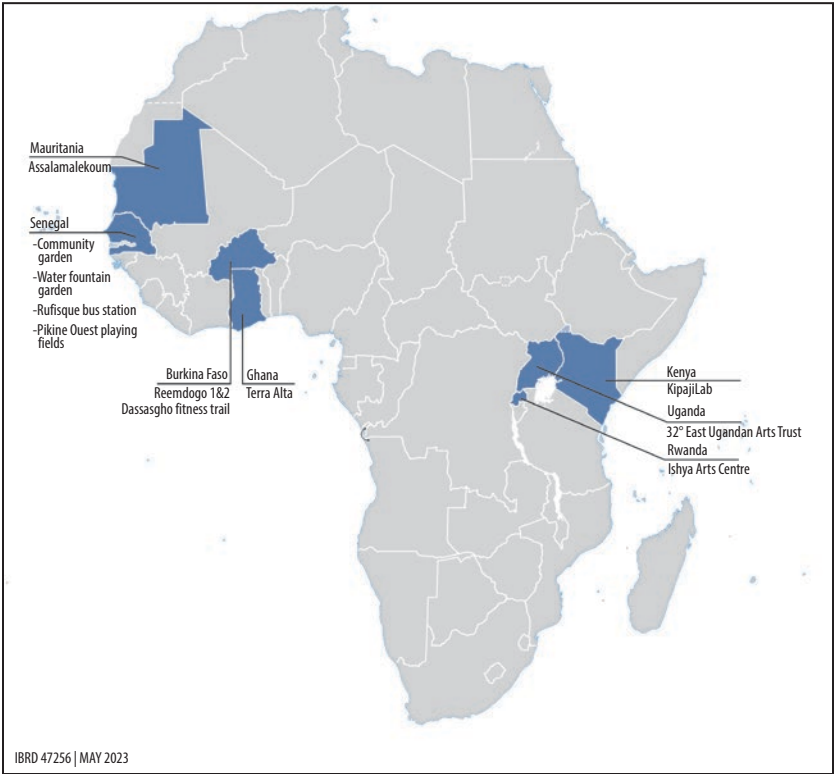
We interviewed people from 11 social and cultural spaces (map 4.1) and 13 fab labs (map 4.2) between January and April 2017, as well as between December 2021 and May 2022. These urban sites were chosen because of the representative nature of their approach and their stage of development.

First, we examine experiences of the social and cultural spaces in Sub-Saharan Africa studied, and then we analyze urban commons for technological innovation and production.

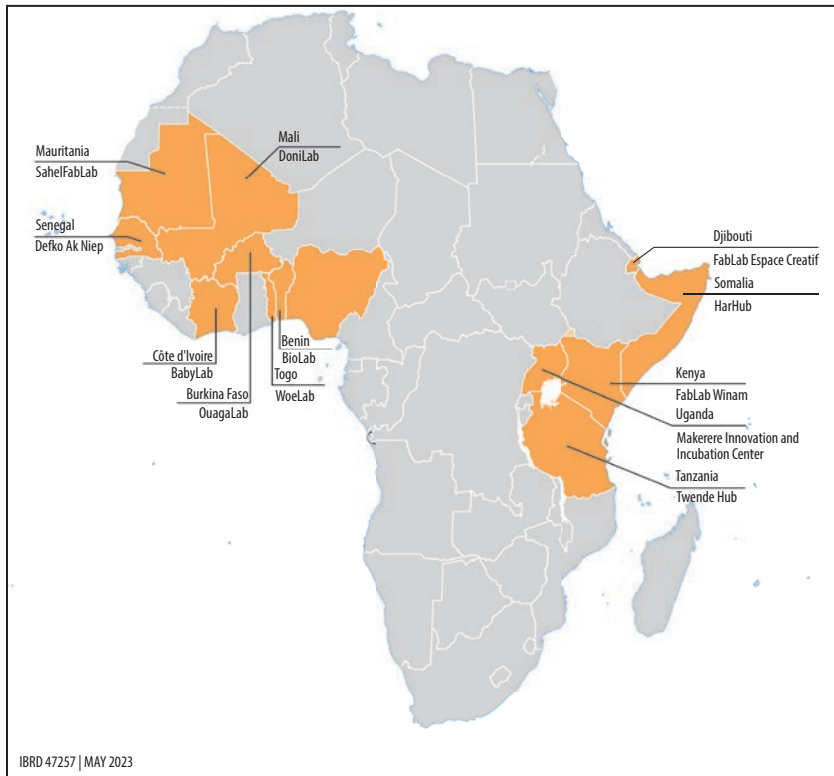
Social and Cultural Urban Commons: Public Spaces and Hybrid Cultural Sites

Urban commons that are predominantly social and cultural in nature focus on welfare. They use art, sport, gardening, and urban agriculture as vehicles for

Map 4.1 Social and Cultural Spaces Studied



Source: World Bank.

Map 4.2 Fab Labs Studied

Source: World Bank.

forging social ties within neighborhoods. In so doing, they address some of the social needs yet to be tackled. Hardly any creative or cultural industries are managed by government bodies in Sub-Saharan Africa, despite access to culture being considered “a way for citizens, and in particular young people, to make their voices heard in the public spaces, and thus reinforces democratic participation” (European Commission and Enabel 2021, 7). Public infrastructure for amateur sport remains insufficient,² despite it playing a part in maintaining public order, preventing crime, and improving young people’s health.³ Finally, and without overstating their importance in terms of the food insecurity facing African cities (Davies et al. 2021), gardening and urban agriculture do have economic worth and create employment, as well as being socially valuable (Rutt 2007).

Social and cultural urban commons in Sub-Saharan Africa fall within two main categories: public spaces used by local people, on the one hand, and spaces specifically focusing on art and artists, on the other.

In public spaces used by local people, art, sport, and gardening are deployed as vehicles for forging social ties within a neighborhood. These are public places local people can access (squares, streets, gardens, playing fields) that have been occupied by collaborative initiatives (box 4.1). They are places people pass through without necessarily stopping (Joseph 1998). Local communities in Africa struggle to plan, implement, and support these kinds of spaces, not least because of the fragmentation of cities (Navez-Bouchanine 2002) that has led to urban wastelands, vacant lots, and rubbish dumps. These public spaces are “fundamental urban materials” (Secchi 2006) for the people who take possession of them. Abandoned by the public authorities, these spaces can be occupied by groups who

BOX 4.1

Examples of Public Urban Commons Accessible to Local People

The Kër Thioissane Villa for Art and Multimedia School of Commons in Dakar houses a fab lab (Defko), as well as an artistic garden and a community garden. The space was created in 2002 in the Sicap neighborhood on the site of an abandoned public garden that had become a rubbish dump. The artistic garden was designed and created in 2014 by Emmanuel Louisgrand, the founder of this space. The experimental hub hosts many projects run by different people (workshops, gatherings, exhibitions). The community garden was created in 2016 to provide permaculture and urban micro-gardening training for young women.

In Burkina Faso, the Reemdogo 1 garden of music was created in 2004 in the Gounghin neighborhood of Ouagadougou as a shared garden where musicians from the neighborhood hold intimate local concerts. The space is managed by the local authorities, groups of musicians, and concert organizers. This initiative inspired the creation of the Reemdogo 2 arts and culture garden in 2018. The aim of both these spaces is to develop artistic endeavors (sculpture and music) and create neighborly bonds between artists, audiences, individuals, and businesses operating in the cultural sector through communal activities and programs.

In Dakar, the local authorities took action to refurbish some abandoned or poorly maintained public spaces (the rubbish dump in Pikine Ouest and the bus station in Rufisque). It let local groups define new public uses for these spaces. A site focusing on sport and local young people was therefore created in the district of Icotaf 1 in Pikine Ouest. At the bus station, new social areas were created, such as mobile food stands (*gargotières*) and spaces for chatting or resting.

As in Ouagadougou, the Dassasgho fitness trail was dreamed up and created by those who live in the neighborhood, near the Jeunesse high school. This space is used by local children and young people from primary school age to university, as well as by older people. The latter go there to meet and chat under the tree, recalling the role of the traditional village “talking” palaver tree.

develop them for communal uses focusing on sport, food production, and culture. The principal goal of collective appropriation of a place in this manner is to make it a public space where local people can stop, move around, and participate in the life of the space. Above all, it is about creating a connection between the lived urban experience and the “normal processes of existence” (Dewey 2005).

Spaces that focus on art offer artists a temporary residence in exchange for their time working with the community and their efforts to bring art closer to the city (box 4.2). In Sub-Saharan Africa, these spaces often take the form of

BOX 4.2

Examples of Spaces Focusing on Art and Artists

The Ishyo Arts Centre, created by eight women in Rwanda in 2007, aims to “reimagine a brutalized humanity.”^a It was created in response to a lack of cultural spaces in Rwanda. In the beginning, it operated as a mobile library that “took children hostage just as history had taken the population hostage.” It aimed to construct a collective imagination from diverse stories. Once the project had permanent premises, the space was opened up to local artists, who were given free residences. The space is managed communally by the founders and the artists.

Terra Alta, on the outskirts of Accra, was created by the artist Elisabeth Efu Sutherland in 2017. This site provides a space for a number of artistic endeavors with a rehearsal room, three artist residences, a gallery, a library, and a theater. A cafe and two shared gardens have just been added. It aims to encourage local artists, residents, young people, and children to mingle and create, practice, and experiment. The space was developed by volunteer residents and artists.

The Kipaji Lab in Kenya is a cultural hub aiming “to decolonize the African continent through visual storytelling.”^b It brings together artists, campaigners, teachers, and researchers. Training courses on screenwriting and stage production are provided, and material is shared with a view to initiating joint visual projects.

Numerous cultural centers stage festivals to promote the work of their resident artists. These initiatives are organized by spaces that focus on artists and can be adapted to public spaces open to local people so as to reach a wider audience. The KLA ART initiative run by the 32° East Ugandan Art Trust in Uganda is a good example of this approach. Its artistic festival exhibits work in public spaces across the city on an ad hoc basis with the aim of “transform[ing] relationships between artist and audience,” by reflecting on issues surrounding “ownership and collectivity.”^c Another example is Assalamalekoum in Mauritania. This organization stages the annual Assalamalekoum Festival in Nouakchott. Alongside artistic performances, workshops, and training sessions, opportunities for discussion are organized with the local population to make art and artistic endeavors more accessible to a wider audience.

a. Carole Karemera at the international conference on “Cultural Third Spaces? Towards New Means of Cooperation Between France and Africa,” May 16–18, 2022, Friche La Belle de Mai, Marseille.

b. Quotation from Kipaji Lab’s website. Available at <https://kipajilab.com/>.

c. Quotation from KLA ART’s website. Available at <https://klaart.org/about/>.

cultural centers aiming to connect art with its audiences. Such hybrid spaces (Besson, forthcoming) have emerged in response to a need for cultural facilitation (Guillon and Saez 2019) where users can become active stakeholders in the cultural program, not simply passive consumers of it (Blandin et al. 2017; Zask 2003). Art is used as a vehicle for viewing political and societal transitions through the reappropriation, reimagination, and redefinition of African culture—past, present, and future. These spaces are also drivers of specific learning processes: peer to peer, citizen empowerment, interdisciplinarity, and knowledge hybridization (Andriantsimahavandy et al. 2020).

Breathing new life into public spaces through communal use

Public spaces are a relatively recent development in Africa. They remain embryonic in many cities and are principally used for private purposes (residential use, informal economic activities) because of the inherent precariousness of life (Dahou 2005) and land speculation (Leimdorfer 1999; Steck 2006). Urban commons are developing social and cultural activities in the same spaces but on the fringes of such private uses. As such, they are exploring a form of urban life that has a foot in both camps (Durang 2000), promoting both social and functional diversity. These commons follow the entrepreneurial approach championed by their founders.

Urban commons can be developed on vacant lots (the Reemdogo 2 garden of arts and culture, the Dassasgho fitness trail in Ouagadougou) or rubbish dumps (the Kër Thiossane community and artistic gardens, the Pikine Ouest playing fields in Dakar) that they have reclaimed. They can also play a part in restoring public buildings. The Ishyo Arts Centre was set up in the former canteen of Rwanda's welfare department.

Africa's urban commons occupy public spaces as if they were a public "stage" (Habermas 1962), as well as an artistic one. The urban festivals organized by some groups are an illustration of this. The KLA ART festival staged by the 32° East Ugandan Art Trust exhibits photos in shipping containers in a number of public spaces in Kampala. In an interview with France's *Libération*⁴ newspaper in 2018, Carole Karemera, cofounder of the Ishyo Arts Centre in Rwanda, explained how the mobile theater had been able to occupy streets that had been the "theater of atrocities in the past" where "people were killed, watched people being killed, or simply closed their windows." The Kipaji Lab in Kenya uses urban spaces as classrooms and places for learning.

Africa's social and cultural urban commons therefore sit at the crossroads between two of the functions that characterize public spaces: sociability in the sense of a "village community" (i.e., acquaintances, neighborhood relationships, and work relationships) (Lofland 1998) and the reciprocal observation of others and their behavior (Cornélis 2020; Goffman 2008 [1963]). At Kër Thiossane in Senegal, the women from the community garden say that before this project, they did not know one another and shared little of themselves. Carole Karemera,

from the Ishyo Arts Centre, says of street theater: “People still aren’t used to it so they say: ‘Who can see me? Who’s there? If I laugh, who will see me laugh?’ People are watching themselves watching a performance.”²⁵

Although some commons occupy public spaces, private and public categories are so permeable that private places can also be used for communal purposes. Terra Alta in Ghana has been built on land belonging to the grandmother of its founder, the artist Elisabeth Efua Sutherland. Today, it welcomes a diverse local audience (artists, children, the public, residents, and passersby).

Transforming the audience’s relationship with art

The principal goal of African cultural spaces is to change the public’s relationship with art and see art as working for citizen’s desires and needs. Through the buses run by the Ishyo Arts Centre in Rwanda that crisscrossed various districts, art was perceived as a tool for rebuilding society. It encouraged a process of cocreating a positive collective imagination with those living in those areas, particularly children. Each block of houses had an “ideas box” so that needs and aspirations could be heard. Each box was marked with the words “if it’s in your head, it’s in our program.”

The way in which the public’s relationship with the arts has been transformed is also evidenced through artists’ desire for their work to be seen outside typical exhibition areas like galleries. The Reemdogo 2 garden of arts and culture in Ouagadougou focuses on promoting the work of local artists in public places that can be accessed by local people.

Using a different approach but with the same purpose, the first KLA ART festival in 2014 in Uganda, organized by the 32° East Ugandan Arts Trust, distributed 12 shipping containers around Kampala. Each container represented an exhibition space, with the aim of changing how the public sees art by taking it beyond the usual locations for art exhibitions. The festival’s website explains that KLA ART is interested in “non-traditional audiences and artists.” Its goal is to “transform Kampala into a living work of art,” making the people its main protagonists so as to consider “the meaning of collective ownership, our identities, our town, our environment, our past, and our future.”

Urban Commons for Technological Innovation and Production: Fab Labs in Sub-Saharan Africa

The main function of urban commons used for technological innovation and production is to stimulate innovation processes by drawing on collective intelligence methods, experimentation, and prototyping. This category includes a broad spectrum of spaces that use different and therefore potentially confusing terminology—makerspaces, fab labs, open labs, hackerspaces, Techshop, living lab, and coworking (Berrebi-Hoffmann, Bureau, and Lallement 2018). The dividing lines between these different spaces are sometimes tenuous (Capdevila 2016; Gandini 2015). The technological urban commons in Sub-Saharan Africa we identified

and studied in detail define themselves as fab labs that are part of the makerspace family. Merindol et al. define the latter as “public community spaces where those who are passionate about technology can implement creative projects, exchange ideas, and learn in an environment which is often digital and designed to be open to user appropriation or reappropriation” (Merindol et al. 2016, 24).

A fab lab is a physical public collaborative space. It gives a community of nonspecialists access to sophisticated digital machines (computer-assisted design software [CAD], laser cutters, computer numerical control [CNC] milling machines, 3D printers, vinyl cutters) to design, learn, prototype, produce, and test objects or software projects or even produce them on a small scale (Bouvier-Patron 2015; Eychenne 2012; Morel and Le Roux 2016; Mortara and Parisot 2016; Rumpala 2014). The aim is to provide a production workshop in the heart of the city (Piller, Weller, and Kleer 2015; Rumpala 2014). Use of the digital tools is shared by all concerned so that anyone can make something themselves or with others (do it yourself—DIY, or do it with others—DIWO). Items produced in fab labs share the open-source philosophy and are therefore not covered by copyright.

Fab labs are makerspaces that have generally signed the Massachusetts Institute of Technology (MIT) Fab Charter (Fonda and Canessa 2016) drawn up by the Fab Foundation, an organization launched by Neil Gershenfeld, who founded the first space of this kind at the beginning of the 2000s. These production workshops can be found in both public places (universities, schools, urban spaces) and private ones (private premises, businesses). Some are open to all (using an open-lab format) without membership, while access to others is reserved for paying members. Users of fab labs come from very diverse backgrounds. They are citizens, researchers, school pupils, students, artists, and businesses.

Today, fab labs are used by large firms as part of their digital transformation process. New ideas are prototyped with a view to defining their future positioning. Local communities also support fab labs to promote digital and social inclusion in their local area.

Numerous studies have categorized the spaces that have emerged in Western countries on the basis of their legal systems, target audiences, studio type, and funding methods (Bottollier-Depois et al. 2014; Eychenne 2012; Lô 2017; Merindol et al. 2016). The following observations have been made. In terms of economic models, many spaces offer services that are either free or subject to a fee (access to a space, training). This makes them hybrid models. At the same time, for many fab labs, the aim is to support the people behind projects and guide them toward entrepreneurship, particularly by proposing a series of training and support sessions (Browder, Aldrich, and Bradley 2017; Fonda and Canessa 2016; Mortara and Parisot 2016; Rayna and Striukova 2021; Stacey 2014).

Fab labs have also been developed in Sub-Saharan Africa, alongside the emergence of other spaces for entrepreneurship and incubation (Cunningham and Cunningham 2016; De Beer et al. 2017). The success of this movement is intrinsically linked to the fact that these places have been developed as urban commons (Mboa Nkoudou 2017). They are therefore enhancing an ecosystem that can address the challenges facing African cities, particularly those connected to population growth. They are also contributing to responding to Africa's digital needs that have continued to increase over recent years (Ninot and Peyroux 2018). Fab labs are therefore agile and innovative facilities that, by judiciously and effectively placing digital technology at the very heart of their model, can provide part of the answer to many challenges.

This movement has sparked the interest of public and private international stakeholders that view fab labs as a new lever for accelerating the development of growth areas in countries in Sub-Saharan Africa, particularly jobs for young people. In 2016, the Organisation internationale de la francophonie (OIF) (International Francophone Organization) highlighted the dynamism of digital production spaces in Africa supporting the creation of digital common goods (OIF and Idest 2016). Other large international organizations, such as the International Organization for Migration (IOM), and nongovernmental organizations, such as Terre des hommes, are involved in creating fab labs. African fab labs are also supported by large firms and European support mechanisms: the Orange Foundation in Cameroon, Côte d'Ivoire, the Arab Republic of Egypt, Madagascar, Senegal, and Tunisia and the European Union's Horizon 2020 program (Cousin et al. 2017).

We have focused on 13 fab labs in particular: BabyLab (Abidjan, Côte d'Ivoire), BloLab (Cotonou, Benin), Defko Ak Niep (Kër Thiossane) (Dakar, Senegal), DoniLab (Bamako, Mali), FabLab Espace Créatif (Djibouti, Djibouti), FabLab Winam (Kisumu, Kenya), GreenLab (Akure, Nigeria), HarHub (Hargeisa, Somalia), Makerere Innovation and Incubation Center (Kampala, Uganda), OuagaLab (Ouagadougou, Burkina Faso), Sahel Fablab (Nouakchott, Mauritania), Twende Hub (Arusha, Tanzania), and WoeLab (Lomé, Togo).

The key role of founders and forming a team

The people behind these spaces play a special role in the African fab labs we studied. They organize the space, create teams, and set up partnerships and funding. They often have prior professional experience in engineering or information technology (IT), for example. Their motives are altruistic, and they often open fab labs in their own homes. They are sometimes supported by online training in the form of massive online open courses. They benefit from peer-to-peer discussions with other fab managers, particularly at conferences (box 4.3). They are generally supported in the running of their space by teams of volunteers who have often studied at the same university as the founder.

BOX 4.3**BabyLab in Côte d'Ivoire**

BabyLab was founded in Côte d'Ivoire in 2014 by Guiako Obin and a dozen of his computer scientist friends. It is the first Ivorian fab lab to become part of the MIT network. The founder wanted to create a place for socializing and digital development for local residents and children who face uncertainty, poverty, and crime. With a background in information technology (IT), and having previously worked as a developer, he took the massive online open course on digital technology run by the Institut Mines-Télécom Business School and set up BabyLab at his home in the working-class district of Abobo ("Baby" refers to Abidjan). His goal is to support potential technological innovation in the neighborhood and provide training sessions that meet the needs of the local area. Thanks to his commitment, BabyLab not only is listed as an MIT fab lab but has also been certified by the Orange Foundation as a solidarity fab lab.

His fab lab is enabling a wide variety of people from every part of society (children in school and those who are not, young men and women following social reintegration schemes and those who are not, organizations for young people, artisans, schools, social centers, local communities, cooperatives, and village communities) to learn about digital technology (through training sessions on coding, electronics, and robotics). They can also learn how to use tools in their professional lives (such as furniture production using tools like 3D printers and CNC machines), develop projects (prototyping), and recycle IT waste via the circular economy. For example, the fab lab runs a Kid Lab program for children ages 8 to 15 during school hours or during their free time to encourage them to tinker and start coding using Arduino kits and Jerry computers.

The founder is now executive director of the space. He is working on creating a network of fab labs in Côte d'Ivoire, and he advises local governments on technological projects with the potential to transform the country. His work is not limited to BabyLab itself. His close relationship with the Orange Foundation, for example, has led to the "Carré lumineux" project (creation of a "smart classroom" with lighting provided by solar panels for pupils from the village of N'gorankro, 50 kilometers from Abidjan, which is not connected to the electricity network). The "Caravane Jeunesse Numérique" program also seeks to raise awareness about entrepreneurship among people living in the country's most isolated regions, in collaboration with the Ivorian Ministry for the Digital Economy.

BabyLab was particularly active during the COVID-19 (coronavirus) pandemic. Driven by its creativity and agility, 300 pedal-operated handwashing stations were produced and distributed to schools and public spaces, as well as 3,000 face shields for health care staff and customer-facing sales staff.

In Sub-Saharan Africa, fab managers are now key players in the fields of digital development involving the employment of young people and the urban transition. They act as an interface between their organizations, the media, and potential partners. Having worked on the ground and proven their leadership skills, they are natural activists for digital technology in their various countries. It should be noted that very few women belong to this network.

The prominent position of digital technology

Fab labs in Sub-Saharan Africa have digital and technological equipment that uses open-source software, mainly small tools and simple computers and printers. Open-source software and material such as Scratch and Arduino are often provided (Fagbohoun 2016) (box 4.4). More consequential equipment, such as 3D printers, depends on financing being available.

Fab labs that have received external support from the beginning, such as FabLab Espace Créatif (Djibouti), created in December 2019, are often better equipped, but they remain rare. Supported and funded by the IOM, this fab lab was initially equipped with five 3D printers, a large CNC milling machine, six computers, a 3D scanner, a laser engraver and cutter, a Dremel tool, and enough consumables to last a year.

Generally speaking, fab managers must innovate if they are to acquire equipment. They draw on local and international partnerships to salvage equipment that can be used to create new computers (like the Jerry computers deployed in schools). In this respect, fab labs implement creative, frugal, inexpensive, and easy-access solutions founded on the principle of recycling.

BOX 4.4

The Digital Creativity of African Fab Labs

African fab labs, like their Western counterparts, use open-source equipment and software that are therefore very inexpensive or even free. However, in some instances, they have taken this approach even further, using the equipment to create new digital materials. Arduino microcontrollers (small, inexpensive open-source circuit boards combined with a microcontroller to create devices interacting with their environment) are widespread. For example, this device can be used to control a field irrigation or live-stock surveillance system remotely via an app. Raspberry Pi nano computers (low-cost computers the size of a credit card) are also used in agriculture, health, home automation, and communication (PiuZZi 2021). Jerry computers were also created in African fab labs. These computers are made from recycled information technology equipment reassembled in a 20-liter container (a jerrycan). They are widely used in education. Finally, some places like WoeLab in Togo can use a 3D printer to replicate at least half the parts for another 3D printer so as to provide other fab labs, for example, with this kind of equipment (the RepRap [Replication Rapid prototype] project).

There are many illustrative examples. For example, French companies, including Société Générale, provide BabyLab (Côte d'Ivoire) with IT waste. BloLab (Benin) has a similar arrangement via IT donations from international organizations. OuagaLab (Burkina Faso) has received equipment from French fab labs (Artilect, ElectroLab, and LabFab).

Shaping African Cities through the Prism of Urban Commons

African cities are developing rapidly and often informally. They are looking for new urban models and ways to construct a city that are specific to Africa (Chenal 2015). Faced with such a task, exactly how a city is fashioned day by day by those who live there needs to be understood. The initiatives described above suggest that, in the field of urban development, a route to collective and participatory methods for recycling and managing local resources does exist. The role of residents in shaping cities is an age-old theme. Our contribution is to analyze how urban commons, and the men and women who create and sustain them, can participate in shaping cities in Sub-Saharan Africa differently. In this final section, we consider what urban commons produce and what functions they fulfill, as well as the strategies they are developing to make themselves sustainable and expand. Finally, we take a look ahead, exploring two possible visions of how commons might contribute to the cities of the future.

Multifunctionality Built on Innovative Approaches to Education

All the urban commons we studied in Sub-Saharan Africa champion the values of ecological and social sustainability, as well as commitment to the local groups involved. Their role as intermediaries connecting diverse people, disciplines, scales, and worlds is essential. They also adopt experimentation and risk-taking. They develop innovative teaching practices by drawing on the dynamics of collective intelligence. This kind of upskilling enables groups to develop sustainable solutions to environmental and social challenges.

Innovative educational practices

The old African adage that “it takes a village to raise a child” is testament to the communal approach to education and training for young people in Africa. Hybrid African spaces employ learning methods that are both non-formal (noninstitutionalized methods aimed at a specific group using ad hoc tools according to need) and informal (all other noninstitutionalized forms of education) (Andriantsimahavandy et al. 2020).

Informal education covers the sociocultural aspects of a child's life: "It embraces the formation of character as much as the development of physical aptitudes, the acquisition of moral qualities, and the acquisition of knowledge and techniques required for life in all its many respects" (Andriantsimahavandy et al. 2020). Informal education is also described as "traditional" or "original" (Ngakoutou 2004). Traditional education is one of the characteristics of African villages and the rural world more widely, but the urban milieu does not lend itself to this community-based traditional education. They are "two types of society, two types of existence and culture, and consequently two types of people. On the one hand, the village, the rural milieu, where society is created alongside the individuals of which it is composed. . . . On the other, the city, the urban milieu, where society is made by members who feel united not by the natural ties of family but by the artificial bonds of work" (Elungu 1987, 124).

Urban commons are seeking to invent new teaching and educational models, reconciling the urban milieu with the sociocultural dimensions of traditional education. WoeLab (Togo) alludes to "new spaces for learning for young people."⁶ For the founders of all these spaces, such educational approaches are necessary "to encourage resilience and the ability to reinvent oneself," in the face of the environmental, social, demographic, democratic, and economic challenges confronting the continent (Andriantsimahavandy et al. 2020, 30).

Skills need to be acquired in four areas (Andriantsimahavandy et al. 2020): problem solving and solution finding, creativity, cooperative work and empowerment, and leadership and entrepreneurialism. Urban commons (box 4.5) and the individuals of which they are composed who are actively engaged in finding local solutions to sustainable development acquire these skills via "blending" (Serres 1992), interdisciplinarity, knowledge hybridization, and the horizontality of exchanges.

Clear environmental and social functions

Urban commons sit at the crossroads between several functions. They combine environmental and social activities with educational work and action to spread the message about the collective aim being pursued. In terms of the environment (box 4.6), African urban commons can have a clear ecological aim: recycling, responsible consumption and supply, short food supply chains, or eco-friendly urban agriculture (permaculture, organic farming). Urban commons are one of the key elements required for sustainable local development in a given area (Mboa Nkoudou 2020). They are part of a rationale of circular urbanism through intensified collective uses of urban spaces and renovation (vacant lots, wastelands, rubbish dumps) or recycling (schools, public buildings) of existing sites and infrastructure. Some urban commons propose activities for those championing projects supporting the ecological transition.

BOX 4.5**Educational Skills and Practices Developed within African Urban Commons**

Problem solving and solution finding: Be it through design prototyping (FabLab Espace Créatif in Djibouti) or face shields during the pandemic (FabLab Winam in Kenya, OuagaLab in Burkina Faso, BabyLab in Côte d'Ivoire, and BloLab in Benin), fab labs employ design thinking and design sprint methods (Knapp, Zeratsky, and Kowitz 2017).

Creativity by developing a new collective imagination and desirable narratives and futures: In Rwanda, the Ishyo Arts Centre works on trauma related to the genocide in the 1990s. In Kenya, Kipaji Lab considers *Africanness* and the decolonialization of Africa. In Nigeria, GreenLab is developing a narrative around local solutions and independence from imported products, as well as young people's abilities to invent and develop innovative solutions through prototyping.

Cooperative work: Exchanging a myriad of skills between people from diverse backgrounds and interdisciplinarity (Labruno 2018) are at the heart of various projects. The Ishyo Arts Centre in Rwanda and Terra Alta in Ghana use theater, music, stories, and photography. The founder of Terra Alta emphasizes the notion of "modularity" across the site and the hybrid nature of the spaces, stakeholders, and arts. The Réseau francophone des fablabs d'Afrique de l'Ouest (Francophone Network of West African Fab Labs) is illustrative of the desire for cooperation at the regional level.

Empowerment, leadership, and entrepreneurship: Developing these skills is the principal goal of many urban commons. Artistic training is provided at some sites: screenwriting lessons at Kipaji Lab (Kenya), awareness raising and artistic training at Terra Alta (Ghana). The Kër Thiossane community garden (Senegal) provides women with permaculture training. Central to the work of fab labs is the cultural integration of digital technology among young people from disadvantaged neighborhoods (Liotard 2020). Numerous workshops are therefore organized for children and teenagers, both boys and girls, during school hours to introduce them to programming and making simple connected objects: Dekfo (Senegal), OuagaLab (Burkina Faso) through the Jerry school program, and GreenLab (Nigeria) through the "One Student, One Arduino," "Katrina Golden Book," and "Mickey Mickey" programs. DoniLab (Mali), in collaboration with the Institut Mines-Télécom de Paris (Paris Engineering and Management Graduate School), runs a massive online open course on "How to Program an Object with Arduino" aimed particularly at students from Mali's School of Engineering, Architecture, and Urban Planning.

BOX 4.6**The Environmental Functions of African Urban Commons**

Eco-friendly practices within urban commons: Defko (Senegal) provides access to a repair cafe for artisans working with metal, fabric, dye, and glass painting, the goal being “unplanned obsolescence” (Goyon 2016). In fab labs, low-cost materials and recycling lead to frugal and inexpensive technical solutions. Responsible practices (limited consumption, recycling) are also at the heart of the efforts of hybrid cultural spaces. At the Pikine Ouest playing fields and the Dassasgho fitness trail in Ouagadougou, use of concrete is minimal. Furniture is made by local artisans and benches from tree trunks on the site. This land had been abandoned by the public authorities but has been developed by those living in the neighborhood using local or recycled materials. Despite its limited means, it promotes the circular economy while creating nice places to spend time.

Support for eco-friendly projects in terms of urban agriculture: The Kër Thioussane community garden (Senegal) provides training sessions on permaculture practices. WoeLab (Togo) is developing the Urban Attic project that aims to turn unauthorized rubbish dumps into vegetable gardens for organic farming, store the food produced in the city’s fab labs, and provide a local platform for purchasing organic products.

Urban commons have a broad social impact (box 4.7) on their members (employees, volunteers, and contributors), their external stakeholders directly or indirectly affected by their work (recipients, users, and clients), and society in general (Gayet and Ung 2021). Commons are first and foremost champions of shared values relating to commitment, intermediation, and connecting people, disciplines, scales, and worlds (Besson 2021). They develop projects in response to specific societal problems: juvenile delinquency, gender discrimination, humanitarian challenges, and health crises. With regard to fab labs, the creation of communities of practices also ensures that “technical activities are seen as social activities guaranteeing cohesion between individuals” and therefore strengthening the local social fabric (Mboa Nkoudou 2020, 54). Some projects target farmers or rural populations and therefore have social effects beyond the limits of the neighborhood or even the city.

Fragile Economic Models and Strategies for Dissemination via Hives***Hybrid economic models by necessity***

The economic models of Africa’s urban commons remain fragile and can quickly fluctuate. There is no standard template as such, but the business models of urban commons appear to be based on a variety of activities that can be

BOX 4.7**The Social Functions of African Urban Commons**

Combating juvenile delinquency: For the founder of BabyLab (Côte d'Ivoire), the fab lab is a way of giving young people something to do outside school and encouraging them to imagine, create, and produce (Leyronas, Liotard, and Prié 2018). BabyLab wants to make every individual an actor for change to achieve social transformation. The founder of OuagaLab (Burkina Faso) also created the Mogtédou fab lab specifically to combat crime and small-scale gold mining by young people.

Combating gender discrimination: "Stop VBG" (Violences basées sur le genre) (Stop Gender-Based Violence), created by BloLab (Benin), is a mobile app for reporting gender-based violence. This project was developed with input from the "Imagination for People" (IP Benin) community and support from the United Nations Development Programme. Defko (Senegal) and BabyLab (Côte d'Ivoire) are involved in specific action for women, as is Sahel Fablab (Mauritania), whose managers are all women. The Kër Thiossane community garden in Senegal is exclusively reserved for women.

Humanitarian focus: FabLab Espace Créatif (Djibouti) welcomes and trains migrants from Ethiopia, Somalia, and the Republic of Yemen. Workshops focus on typing and how to use a keyboard.

Solutions during a health crisis: A number of initiatives were launched during the COVID-19 (coronavirus) health crisis. The Réseau francophone des fablabs d'Afrique de l'Ouest (Francophone Network of West African Fab Labs) launched "Makers Nord Sud contre le coronavirus" (North South Makers against Coronavirus) in 2020, in association with Réseau français des fablabs (French Fab Lab Network) and Réseau Bretagne solidaire (Brittany Solidarity Network). This project provided fab labs with the equipment to produce face shields and even ventilators. Similar initiatives were developed in East Africa. For example, FabLab Espace Créatif (Djibouti) sent FabLab Winam (Kenya) models for 3D printed face shields.

Effects beyond the city limits: BloLab (Benin) is developing the Ipatik digital app for farmers. It helps them link up with one another and includes a remote-controlled automatic crop irrigation system. BloLab has trained approximately 250 farmers. At OuagaLab (Burkina Faso), most projects also focus on farmers: a low-cost wind turbine producing 1 kilowatt-hour, a public weather station providing climate data (temperatures and humidity levels) on the city and agricultural areas sent by text message, a platform for recycling and marketing local agricultural products, and a kit for farmers to alert one another when a parasite disease is observed. Sahel Fablab (Mauritania) has designed and produced solar cookers to reduce firewood consumption in rural areas, as well as an automatic irrigation project controlled via a mobile app that includes a drip system and can also measure soil moisture. Mobile cultural initiatives, such as the Ishyo Arts Centre in Rwanda, are sometimes held outside the city.

funded from difference sources, thereby ensuring greater independence and less vulnerability (see the hybrid model defined in chapter 1).

Originally, many of the founders of these spaces wanted them to be open and free to all. However, economic reality caught up with them, and they were forced to consider an economic model that could guarantee the sustainability of their activities. Some spaces received funding from international organizations very early on in their development, especially if they were not receiving any support from local bodies (Mboa Nkoudou 2020). However, all the spaces have developed hybrid models over time. Membership, volunteering, grants, contributions to costs by local residents (to hire the space), income from activities (catering, bar), donations in cash or in kind, various services (expertise, project support, adult education), participatory funding, and partnerships are all used to help balance budgets.

Most of these spaces were founded by men and women who initially used their own funds. For example, the founder of Terra Alta in Ghana funded almost the entire renovation of her space by selling her artwork. Some were able to obtain financial support (via corporate foundations, states, and international organizations). Defko (Senegal) is an exception. When it was created, it immediately received a relief fund from the OIF to purchase equipment and then a grant from the Orange Foundation for its training program for children. Similarly, Fablab Espace Créatif (Djibouti) has been supported by the IOM from the very beginning. BabyLab (Côte d'Ivoire) received financial support as it developed. In particular, it accrued a financial grant from Orange Solidarity, part of the Orange Foundation, and funding from the French government. Among the hybrid cultural spaces, Kipaji Lab (Kenya) has received financial support from the nongovernmental organization Zuri Works.

Many of Africa's urban commons have raised money through crowdfunding (BabyLab in Côte d'Ivoire, BloLab in Benin, OuagaLab in Burkina Faso, and Terra Alta in Ghana). Some have received bursaries (Winam in Kenya) or scientific awards (BabyLab in Côte d'Ivoire). Fab labs offer membership to their users, but numbers remain very low. The Ishyo Arts Centre requires artists to pay the center a third of any revenue they earn that is connected to the sale of their work in that space. Some of the activities and services on offer involve payment of a fee. For example, fab labs provide free digital manufacturing training courses, but there are also paid versions via partnerships with either schools or universities or with incubators. For example, BabyLab (Côte d'Ivoire) provides services to the incubator Incub'Ivoir, and Defko does the same for the Senegalese incubator Cetim. Some hybrid spaces hire out part of the site for private use. Terra Alta in Ghana uses an unusual credit-based system where a contribution to the day-to-day work of the space (cleaning, childcare, art awareness, and teaching) can be exchanged for use of the rehearsal rooms. Finally, some places provide

incubator spaces that give them an income. Currently, WoeLab incorporates nine startups that belong to the community under the Silicon Village banner. The young people involved are co-members. Kipaji Lab (Kenya) has an incubator space enabling artists to receive partial payment.

Most economic models for urban commons are precarious. However, they are adapting to the places where they are being developed and particularly to the legislation of countries that do not yet have a specific or appropriate status for them. The area they choose to specialize in is crucial.

Dissemination strategies: Off-shoots and hives

The founder's personality and links to national and international academic and economic communities are major assets if a space is to be sustainable. Knowledge of the environment, discussions during meetings and conferences, and trips overseas are essential for networking and forging ties with potential sources of funding. GreenLab (Nigeria) is indicative in this respect. Its founder is Nigerian but lives in Germany and works with a German fab lab. He is involved in research into innovation and how African fab labs operate and therefore benefits from the related network of contacts.

Belonging to a regional, or even international, network appears to be a necessity. The network acts simultaneously as a learning community and a vehicle for dissemination. Research conducted by Kebir and Wallet reveals that purpose and a symbolic arsenal (the narrative supporting projects) are decisive if these communities are to spread and be reproduced. The authors identify two routes for dissemination: "off-shoots" and "hives" (Kebir and Wallet 2021).

Dissemination via off-shoots requires an umbrella organization that can support the creation of initiatives implementing its goal and help give a group structure. Its goal is not expansion and management of several sites but rather to spread, reproduce, and replicate its concept and its approach across the region. In Rwanda, the Ishyo Arts Centre, a leading cultural center, has inspired 15 similar spaces.

The dynamics of hives (working as a network) is different. The umbrella organization develops a project that centers on the space where it performs its work. This site is unique, and the aim is not to reproduce it or replicate it. However, anyone wanting to develop a similar approach can take inspiration from it. Dissemination is achieved by people leaving the site (the hive) at a given moment to pursue their own activities and found their own community that is independent of the umbrella organization.

“Collaborative City” or “Commons-Invested City”: Two Possible Visions for African Cities

Local authorities are struggling to address the challenges facing cities and urban areas more widely, but the dynamism of commons initiatives and the

creativity of their solutions could galvanize public stakeholders to take an interest.

An entire mosaic of circumstances and relationships exists between African urban commons and state intervention mechanisms. Although some commons are part of larger projects championed by local communities, others remain specialized niche spaces for social experimentation. Kebir and Wallet propose three visions of a city where commons have a role: an “enhanced city,” a “disputed city,” and a “reinvested city” (Kebir and Wallet 2021). On the basis of what we have studied, we propose two of our own: a “collaborative city” and a “commons-invested city.”

The first vision is that of a city “collaborating” with urban commons. In this configuration, African urban commons are islands that emerge to address welfare issues (access to resources, new local services, education, culture). This vision relies on these initiatives being viable in the long term and their ability to transform their initial experimental approach into a sustainable one. Local communities can sometimes sincerely support these initiatives. The enthusiasm generated by the Kër Thiossane community garden in Senegal, for example, encouraged the town hall to install public lighting around the space. However, state authorities can be slow to act or even pursue strategies preventing the sustainability of urban commons. The latter remain a safety valve within the dominant economic model, a refuge for those excluded from the heart of that model and confined to the margins of the system. Juxtaposing these two mechanisms (state intervention, on the one hand, and urban commons, on the other) would surely have an impact on the spatial configurations of African cities that have been “atomized [and] fragmented into sub-spaces based on function” (Mayer and Soumahoro 2014).

The second vision is a city “invested” by urban commons. It is characterized by initiatives that fill in any gaps left by city policy and have a close connection with local communities or are even initiated by them (box 4.8). This vision of a city is based on blending commons methods and state intervention mechanisms. By focusing more on collective mechanisms for creating and managing urban resources, commons enhance the local authorities’ urban project by seeking greater inclusion, equity, and deliberative democracy. Some urban commons (the Ishyo Arts Centre in Rwanda, WoeLab in Togo, and the Assalamalekoum organization in Mauritania) claim to follow this approach and highlight the inspirational nature of their initiatives. In this respect, processes associated with commons complement those described in literature on territorial development by combining economic considerations with those connected to societal challenges (ecological transition, education, welfare, and gender equality) and environmental challenges (recycling and thrift).

BOX 4.8**Urban Fabric Initiatives: From Temporary Urbanism to Transitional Urbanism**

In 2018, the Agence française de développement (AFD) (French Development Agency) set up a mechanism called “Pépinières urbaines” (Urban Fabric Initiatives)^a in what was intended to be an immediately visible contribution to the participation of local residents in the development of their city and their neighborhoods (Besson 2022). Alongside drawing up 5-year and 10-year plans and offering support with their implementation, this initiative sought to experiment with and support new ways of shaping cities. By bringing together local communities, the public contracting authorities of large urban projects, and civil society stakeholders, the goal was to contribute to encouraging new practices through micro-projects.

The nature of any potential results is very broad and will be formed by the discussions between local residents and users, as well as the public contracting authorities. Support will be provided by organizations specializing in these mechanisms (such as le Gret, urbaSEN, urbaMonde, and Cabanon Vertical). These initiatives are presented as citizen initiative hubs supporting the city’s stakeholders in codesigning and co-constructing innovative and participatory micro-actions for developing and reactivating public spaces.

At the beginning of 2022, urban fabric initiatives were rolled out in Burkina Faso in two central zones of Ouagadougou (Tampouy and Grand Est). In the long term, these areas will be the recipients of a larger infrastructure program (as part of the Ouagadougou Sustainable Development Project implemented by the town hall and funded by AFD during its second phase). The initiatives were also introduced in Dakar in connection with future public transport equipment, in Tunisia in neighborhoods covered by National Programs for Renovating and Integrating Districts with Insecure Housing, and in Abidjan in disadvantaged neighborhoods covered by Côte d’Ivoire’s Project to Improve Abidjan’s Redesigned Districts championed by the Ministère en charge de la Construction, du Logement et de l’Urbanisme (Ministry for Construction, Housing and Town Planning). The micro-actions cocreated by users and civil society organizations include interim development of sites (fitness trails, rest areas for people using public transport, roundabouts), equipment like mobile radio, and places for meeting and creativity, as well as events (e.g., sports tournaments).

This process was inspired by the urban movements known as transitional or temporary urbanism and, more widely, as co-urbanism.^b It has been scientifically assessed and monitored,^c providing an analysis of any benefits or issues arising from this type of “urban lab.” The assessment indicates that, at the first sites, the micro-actions of urban fabric initiatives are making a decisive contribution to improving how the places chosen are used and their environment. The implementation of a participatory approach to urbanism is widely recognized and has been positively received. These urban fabric initiatives are also making a vital contribution to more horizontal organizational innovations with powerful communication and mediation tools between government

(continued next page)

Box 4.8 (continued)

authorities, nongovernmental organization stakeholders, and citizens. Cooperative processes have therefore been bolstered and the way in which management methods and the urban fabric are viewed is changing.

However, despite hubs starting to spread the idea of urban fabric initiatives, their impact on the local economy and the transformation of urban planning remains limited. These initiatives face a number of dilemmas that have still not been resolved (Besson 2022). More dialogue and greater awareness within institutions, as well as a broader scope for the initiatives, are probably necessary. They could then evolve from being part of tactical and temporary urbanism to more structured forms of transitory and transitional urbanism.^d

a. <https://pepinieres-urbaines.org/>.

b. Report, Student Workshop, École d'Urbanisme de Paris (Paris School of Urban Planning): Co-urbanismes (pepurbaeup.wixsite.com).

c. Raphaël Besson (Villes Innovations, PACTE-CNRS), with scientific support from Armelle Choplin (University of Geneva) and Jérôme Lombard (IRD).

d. For definitions, see Besson (2018).

Conclusion

Urban commons are a familiar sight in Europe and North America. Confronted by the limits of neoliberalism and its excesses, citizens are engaging in numerous initiatives, testing new cooperative models, inventing new narratives, and mobilizing within wider communities and networks. Many say they belong to a “movement”: a movement of fab labs, a movement of third places, a movement of commons.

Africa's situation is different. Urban commons are emerging in Sub-Saharan Africa in a more isolated manner and, like the West African fab labs, resemble an archipelago at best. They are responding to essential requirements not currently met by either government authorities or the market, while also endeavoring to rebuild strained social relations. They are the basis for innovative forms and methods of commons-based entrepreneurship (collective work and projects) founded on shared means, resources, and goals in terms of satisfying needs, without seeking a profit (see chapter 1). Africa's urban commons are raising new dilemmas (Besson 2022): how these initiatives are to be scaled up, their funding models, the role of “citizen users,” how projects championed can be made more sustainable, their inclusion in very localized urban economies, and how they cooperate among themselves. It would be a mistake to view them through a homogeneous prism. Their purpose, how they operate, their motivation, and their economic models are very diverse. The reasons for people's

involvement in urban commons are also varied: pragmatic, personal, professional, and sometimes political and ideological. Africa's hybrid cultural spaces and fab labs are therefore following different trajectories. For example, fab labs in West Africa display a societal vocation, while some fab labs in East Africa are seeking to become startup incubators over time.

That being the case, what potential do these African urban commons have in terms of providing a sustainable response to the needs that motivated their initial emergence, and what role can they play in reinventing urban policies? Their vulnerability is obvious: their economic models remain precarious, collective dynamics are fragile, and institutional recognition is inadequate. However, their numbers are rising and their presence is increasingly essential for local populations. Their experiments can stimulate visions of alternative futures (Graeber 2004). Is it therefore time to consider new ways of shaping and managing cities that include a role for this model, while resisting the temptation to standardize it?

Notes

1. "Fab lab" is a contraction of "fabrication laboratory."
2. "Why sports and development go hand in hand," <https://blogs.worldbank.org/education/why-sports-and-development-go-hand-hand>.
3. "Sport and development in Africa: What is the role of the public sector?" <https://sportencommun.org/en/actualite/sport-and-development-in-africa-what-is-the-role-of-the-public-sector/>.
4. Article from *Libération*, 2018, interview with the founder of the Ishyo Arts Centre: Carole Karemera, j'irai le dire chez vous – Libération (liberation.fr).
5. Article from *Libération*, 2018, Carole Karemera, j'irai le dire chez vous – Libération (liberation.fr).
6. Les fab lab au cœur des défis numériques en Afrique (theconversation.com).

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