

African Cities Magazine

Resilient and sustainable cities
through innovative solutions



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Leandry JIEUTSA
Founder of Africa Innovation Network

AIN MAG #3

Welcome to the third edition of African cities magazine. African cities are the center of perpetual and often misunderstood changes and mutations. Indeed, the urban forms and engineering in place on the continent respond to cultural and social configurations and patterns of use of space that are unique to Africans. Understanding and interpreting these configurations is the essential starting point for a sustainable transformation of African cities and territories.

Innovative practices of urban fabrication based on participation, collective fabrication, digital, dialogue, art, design, etc. offer an infinite field of possibilities to guarantee a sustainable urban future in Africa.

This is why we initiated this magazine three years ago, which aims to be a rich resource of inspiring practices for more inclusive, resilient and sustainable cities in Africa.

This third edition opens with an interview with Jean-François Habeau, Executive Director of the Global Fund for Cities Development (FMDV), on the issue of financing sustainable cities in Africa. The urban planning innovation section is followed by a wide range of innovative projects based on participation and collective construction. In order to inspire a larger number of people and particularly young people, this edition features a portrait of Aziza Chaoui, Principal architect at Aziza Chaoui Projects and Associate Professor at the University of Toronto. Finally, the magazine ends with a sweep of the main events on African cities that took place during the year.

We hope you enjoy this third issue developed by actors committed to building a better urban future in Africa. We look forward to seeing you on October 31, 2023 for the fourth edition, which will focus mainly on transport and urban mobility in Africa.

Financing sustainable cities in Africa

Interview with Jean-François Habeau, Executive Director of the Global Fund for Cities Development (FMDV)



“ The urbanization of the African continent constitutes an important economic potential provided that it is accompanied by policies aimed at low-carbon, inclusive and sustainable economies... ”

We often talk about the issue of urbanization in Africa: the number of city dwellers has doubled in the last 20 years and will double again by 2050 to reach 1 billion new city dwellers. This is the equivalent of what China has financed and built in cities throughout its history that will have to be delivered in Africa in less than thirty years.

No other continent has experienced such growth: this means that we must deal with major issues of planning, governance, management, and financing of these cities, in order to provide services and infrastructure that are affordable for all and that are resilient to climate change.

There are therefore many challenges surrounding the African city. But this urban growth must also be seen in a more positive light, by analyzing its significant potential, particularly from an economic point of view.

This, provided that it is accompanied by policies aiming at low-carbon economies and promoting equity and the integration of youth and women.

But there is also a more positive angle, by analyzing the important potential of this urban growth, especially from an economic point of view, provided that it is accompanied by policies aiming at low-carbon economies and aiming at sustainable and fair development, advocating equity and favoring the integration of young people and women.

For this, the Sustainable Development Goals (SDGs) provide a good framework for national and local governments. But they need to have the means to use it, which is often a challenge. And this is where the Global Fund for Cities Development (FMDV), as a global network dedicated to supporting the financing of sustainable cities and urban development, comes in.



Kinsasha-DRC, Leandry JIEUTSA 2022



Jean-François Habeau, Executive Director of the Global Fund for Cities Development (FMDV)

“ It is crucial to better support public authorities in identifying their priority projects and preparing them technically and financially so that they can be presented to investors... ”

First of all, there is a trend to say that financial resources exist to finance African cities but that they are poorly targeted. This is true, insofar as most public and private financial partners have developed eligible funding lines for cities in recent years, but these lines do not reach the projects carried out by local elected officials or even ministries.

Nevertheless, I remain more nuanced as to the targeting of these resources, because it is often said that more investment should be opened up to cities, when in fact it would be necessary to invest more in the project preparation phases.

In my opinion, we are facing a market failure; the existing resources do not reach the existing projects for many reasons that it would take too long to develop here. There are, however, several myths to deconstruct around these issues:

“It is up to investors to adapt their terms of engagement to better finance cities.”

There have been many calls for international climate funds to finance cities directly. This does not seem to me to be the priority battle. The conditions of intervention of investors are almost immutable because they are governed by the market, norms, and standards. Market, by international norms and standards. They are also constrained by investment thresholds that often do not correspond to the needs of city projects. We need to focus on the development of tailor-made solutions that allow everyone to benefit.

These solutions, of which there are many, can only be developed through multi-actor partnerships.

However, these partnerships are not yet sufficiently developed; it is a matter of organizing dialogue so that these actors get to know each other, speak the same language and identify, together, the conditions to be met in order to develop solutions applicable through these new partnerships.

It is in this spirit that the FMDV is leading several alliances and multi-stakeholder coalitions on the subject of financing and is working to connect potential partners, particularly through matchmaking sequences aimed at linking supply and demand between project leaders and the providers of technical, industrial, and financial solutions.

“Cities are not creditworthy enough to be financed.”

This is a reality in Africa, where the majority of cities are not sufficiently solvent to ensure the confidence of an investor. This is a sticking point for many financing actors.

However, in general, investments made in cities do not necessarily go through the local authorities budget. These funds may be directed to projects or via public and private operators, and in this case, it is these projects and operators that need to be specifically analyzed.

It is, therefore, possible to go beyond the weakness of the community's finances: a city that is not solvent may well have projects with strong potential in its territory; projects that are investable from the point of view of both their economic model and their financial balance.



Grand Bassam-Cote d'Ivoire, Africa Innovation Networ, 2021

This is what we at FMDV are also working towards. We have done so through several interventions, such as the creation of the International Municipal Investment Fund (IMIF), created with United Cities and Local Governments (UCLG), United Nations Capital Development Fund (UNCDF), and Meridiam, a fund manager that invests in sustainable infrastructure projects through public and private partnerships.

Through this fund in Africa, independently managed by Meridiam, we aim to demonstrate that by working on the entire project process - from its preparation to investment to its long-term management - and with all public and private stakeholders, large-scale investments in sustainable city projects are possible.

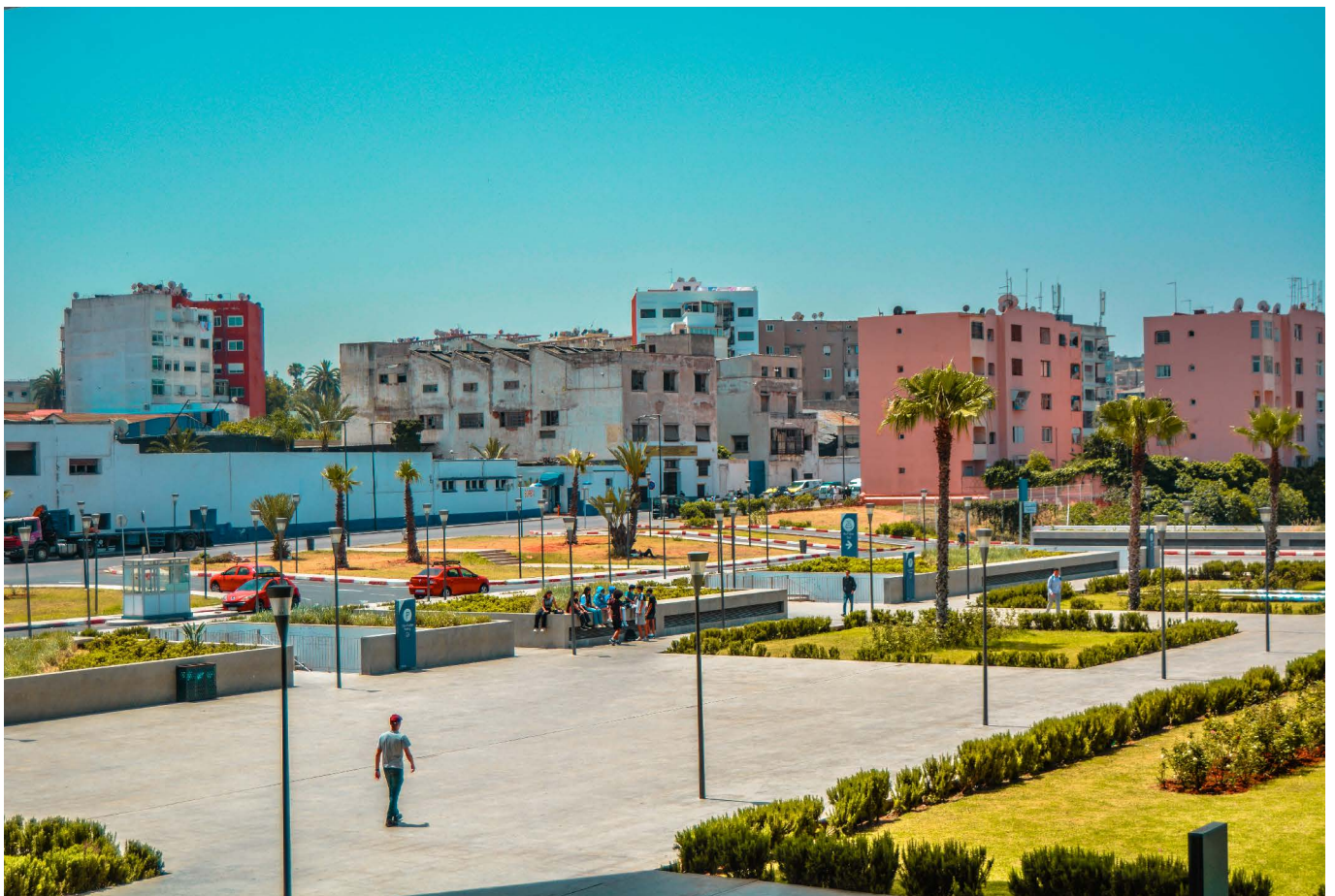
“Cities are not able to prepare sufficiently mature projects.”

We often talk about «bankable» projects. But from the point of view of a public authority, it seems to be more accurate to speak of «investable» projects. If we look at the way cities in Europe operate, in most cases and outside the major metropolises, the city sets the course and the political vision; it organizes and manages the planning and highlights its priority projects.

It then outsources the technical and financial preparation phases to consulting firms. In Africa, however, there is an expectation that cities should formulate these investable projects themselves by taking charge of the technical and financial preparation phase.

It is crucial to better support public authorities in identifying their priority projects and preparing them technically and financially so that they can be presented to investors. This is what several donors have committed to in recent years, by creating project preparation assistance mechanisms. This is a very good thing.

Nevertheless, at the FMDV, we think that we need to go further to complement these efforts; to work beyond the individual project and invest in sustainable public structures that can, in the long term, support a greater number of cities in the preparation of projects. This would allow for more impact for more projects and more cities and, ultimately, meet the growing needs of a larger and larger urban population. This is what the FMDV is currently working on in several African countries, notably with the Moroccan government, by creating «FinHubs», technical assistance units attached to public bodies and dedicated to helping local authorities prepare their projects.



Casa Voyageur train station, Casablanca-Morocco, Leandry JIEUTSA 2022

“ The diaspora has an important role to play in financing sustainable cities in Africa as well as innovative mechanisms such as crowdfunding and other participatory financing tools... ”

There is no single solution to meet investment needs and the model must be adapted to the project, the context, and the environment in which it is located.

Several mechanisms need to be developed in Africa: those allowing blended financing between public and private financing, which is the purpose of the IMIF I mentioned above; those allowing pooled financing to enable cities to reach investment levels corresponding to those of investors.

Other innovative instruments, to be tested and developed, can give hope for effective results in Africa: particular and for example, the mobilization of remittances from the diaspora, whose annual amounts exceed the commitments of all donors in Africa, crowdfunding, and other participatory financing tools.

At the FMDV, one of our priorities remains to develop solid technical and financial intermediation, on a long-term basis and at the country level.

These intermediaries can be national public development banks dedicated to financing cities, which we call Subnational Development Banks (SDBs), as is the case in Cameroon with FEICOM for example.

These SDBs have a central role to play: as financial institutions, they have the confidence of financial partners and can thus catalyze external resources to channel them to city projects, but also help cities structure their projects. They can thus aggregate projects from several cities to develop investment portfolios to present to investors.

It is in this sense that we have been supporting the Network of African Local Government Finance Institutions (RIAFCU) since 2015 and that we are leading two SDB alliances, one in Latin America and another in Africa, within the framework of the annual Finance in Common Summit - the 2023 edition of which is being held in Côte d'Ivoire.



Bonajo, Douala-Cameroon, Leandry JIEUTSA 2022

“ **The Global Fund for Cities intervenes both as a program operator with public authorities by mobilizing the appropriate expertise...** ”

We work in a number of ways and with a wide range of actors, as mentioned above. We support regional bodies such as WAEMU, ministries, groups of cities, and individual cities and regions through a comprehensive service offering.

The FMDV acts as a program operator for public authorities by mobilizing the appropriate expertise, as a facilitator of a multi-stakeholder dialogue on city financing issues, as a trainer of public actors on financing issues, as a facilitator and intermediary between the various partners, and finally, as a political advocate to push for better consideration of city and regional financing on national and global agendas.

We have worked with a community of 1,500 local governments in 100 countries and helped mobilize 1 billion euros for the financing of sustainable cities.

Finally, in order to increase the impact and reach a larger number of cities and regions, especially intermediate cities, we are currently working to systematize this offer.

This new service offer will be presented at the first Finance Your Cities conference in Abidjan on October 21, which the FMDV is organizing in partnership with the Ivorian authorities and several renowned institutions.



Signature of memorandum of understanding between the FMDV, the Ministry of Construction and the UNDP during the Finance Your Cities conference in Abidjan, 2022



Mballa 2, Yaounde-Cameroon, Leandry JIEUTSA 2022

African Cities Round Tour

Ivory Coast

Watch Here



YouTube



AMON Joseph, President of the National Council of the Order of Architects of Côte d'Ivoire

In a resolutely urban continent with more than half of the population living in cities, the urban transformation underway on the continent must be able to turn the challenges posed by rapid urbanization and population growth into opportunities.

Indeed, African cities are facing issues and challenges that hinder their urban development.

It is, therefore, essential for actors to take a forward-looking look at the cities of tomorrow by drawing inspiration from ancestral practices and current innovations and trends.

Thus, several endogenous actions are implemented by actors on the continent to promote the sustainable development of cities through innovative practices. In order to accelerate the transformation of territories towards inclusive and sustainable development, it is essential to promote these actions to not only inspire the actors of the urban fabric in Africa, but especially to understand the urgency to act on the cities and territories of the continent.

This is why the African Cities Round Tour (ACRT), a documentary series on African cities, gives a voice to the continent's actors to take stock of the challenges and opportunities offered by urban development and to draw up a common vision of the continent's urban future.

African Cities Round Tour: A documentary series through African cities

African Cities Round Tour is a documentary series that gives voice to actors on the continent to draw a vision of more sustainable, resilient, and inclusive African cities, particularly through the potential offered by innovation and technological development.

Urban planners, architects, designers, artists, engineers, or even simple city dwellers, the "African Cities round tour" aims to draw up an inventory of urban dynamics on the continent, while taking a prospective look at the African cities of tomorrow.

Changing the way we look at African cities by highlighting the opportunities and actions that local actors are implementing for a sustainable urban future is the mission of the African Cities Round Tour.

Leandry JIEUTSA, Founder and Executive Director of Africa Innovation Network



Adjamé Market, Abidjan-Ivory coast, Eva Blue unsplash.com 2019



“ ***This documentary series on the cities of Côte d'Ivoire is an excellent opportunity to highlight the challenges and opportunities related to the development of our cities through the eyes of the actors of the urban fabric.*** ”

Mr. AMON Joseph, President of the National Council of the Order of Architects of Côte d'Ivoire

After the first stop in Cameroon, Côte d'Ivoire was the second destination to host the African Cities Round Tour.

Côte d'Ivoire, officially the Republic of Côte d'Ivoire (RCI), is a state located in West Africa with an area of 322,462 km². The country's political and administrative capital is Yamoussoukro, but almost all institutions are located in Abidjan, its main economic center.

Urbanization in Côte d'Ivoire is steadily increasing, from 17.7 percent in 1960 to more than 50 percent in 2018. According to the 2014 population census of Côte d'Ivoire, the urbanization rate stands at about 50 percent for an estimated average annual growth rate of 3.8 percent. The urbanization rate is expected to increase to 60% by 2025 and exceed 70% by 2050.

The urban system is characterized by a predominant city of about 4.5 million inhabitants (Abidjan), a city of about 500,000 inhabitants (Bouaké), and three cities with more than 200,000 inhabitants (Daloa, Korhogo, and Yamoussoukro, the capital), and other secondary cities with more than 100,000 inhabitants.

It is in this context that the African Cities Round Tour destination Côte d'Ivoire is grafted to decipher the trends and dynamics of the cities of Côte d'Ivoire and take a forward-looking look at the Ivorian cities of tomorrow.

To this end, the ACT was invited by the Council of the Order of Architects in Côte d'Ivoire, to give voice to the urban actors who work on the territory of Côte d'Ivoire. Several actors expressed themselves through a series of interviews with architects, property developers, local and administrative authorities, etc. on the dynamics of Ivorian cities. Each participant was also asked to imagine, in light of the challenges, what the Ivorian city of tomorrow would look like and what means should be made available to achieve this.

The interventions of the actors have grouped around 04 major themes, namely: Ivorian urban identities; the challenges of urban production in Côte d'Ivoire; urban practices for inclusive, sustainable, and innovative Ivorian cities; and the Ivorian city of tomorrow.



The existence of cities in Côte d'Ivoire dates back to the pre-colonial period with ancestral cities such as Bouna whose population was estimated in 1889 at about 10,000. This pre-colonial city located on present Cote d'Ivoire was both the capital of the Koulango kingdom headed by Bunamasa, and a trading city on one of the great caravan routes of West Africa.

The urbanization of Cote d'Ivoire accelerated with colonization. Between 1920 and 1960, the economic exploitation of the colony led to an expansion of the old urban centers and the emergence of new cities.

The urban fraction of the country was made up of only fifteen or so large towns with between 2,000 and 10,000 inhabitants located on the coast and in the north of the country (MEMPD, 2006).

After the Second World War (1945), the development of the colony leading to the development of a plantation economy and the establishment of the road network led

to the strong growth (8%) of large towns such as Abidjan and Bouaké. Urbanization thus reached 15.4% and spread to the southern forest region with a regular network of towns with 10,000 to 20,000 inhabitants (MEMPD, 2006). The Ivorian city at the time of the colonial era was not very developed and could be compared to rural areas.

After independence in 1960, the opening up of localities linked to the expansion of the plantation economy to the west (Soubré, Méagui, Divo, etc.) was the catalyst for rapid urban growth.

However, the economic crisis that hit the country in the 1980s led to a slowdown in urban growth, causing the average growth rate to fall from 8.2 percent to 5.5 percent per year between 1975 and 1988. However, the policies of administrative decentralization and deconcentration developed in the early 1980s helped to increase the spread of urbanization through the creation of several cities in the country. The urbanization rate reached 43% in 1998 (INS, 1998).



Marcory, Abidjan-Ivory Coast, AIN 2022



“ The urban framework of Côte d’Ivoire is made up of large cities such as Abidjan, Yamoussoukro, San-Pedro, which are considered global connectors because they have large-scale infrastructure of international level. Then there are the regional connectors, which are cities connected to cities in the sub-region. Finally, there are the local connectors, which are tertiary cities. ”

Alexandre Kouame, Advisor to the Minister of Construction, Housing and Urban Development

According to World Bank estimates, approximately 65% of Ivorians will be living in cities by 2050, compared to 50% today and 17.7% just 60 years ago.

However, with development resolutely on the move, Cote d'Ivoire is still faced with a challenge of regional balance with the capital Abidjan concentrating all of the country's important facilities and drawing the majority of the population.

This can be explained by the land use planning policy which gives greater interest to Abidjan to the detriment of the secondary cities which do not always benefit from sufficient resources to boost their development. Other challenges include urban planning, governance, and infrastructure development. In addition, there is the question of training professionals and local actors capable of facing the issues and challenges of the country.

Although Ivorian cities are subject to several issues and challenges, a series of initiatives put in place by public and private actors to help build inclusive, sustainable and innovative Ivorian cities must be noted.

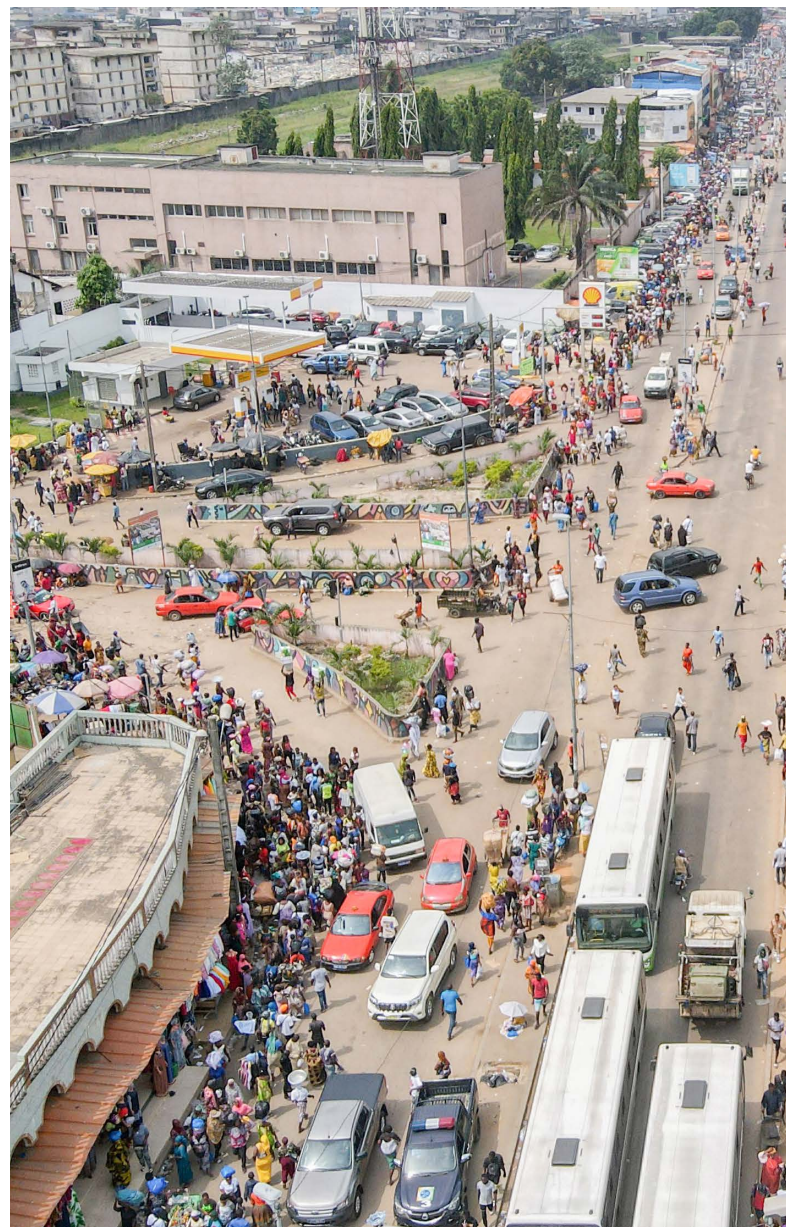
It is with this in mind that the Ivorian government, in its development policy, through its structures such as the National Bureau of Technical Studies and Development (BNETD), is putting in place several large-scale infrastructure projects to improve the quality of life in the country.

In addition to the development of large-scale infrastructure projects by the State, there is also a strong desire on the part of the government to find solutions to the thorny problem of land ownership.



“ Today, we are working on the PAMOFOR, which is a project led by the Rural Land Agency, and aims to control and set the boundaries of each village and produce a map. We are also working with the General Directorate of Taxes on land optimization. All of this is to ensure that land is a vector for the sustainable transformation of territories. ”

Sekou Diallo, surveyor and CEO of CGEDS



There is also a strong involvement of multilateral donors who contribute to the development of Ivorian cities. The African Development Bank, for example, has participated in three major urban development projects in Abidjan, such as the integrated management of the Gourou watershed, the Y4, which is the city's northern bypass, and the project to support the mobilization of resources for the communes of Côte d'Ivoire through a sub-sovereign loan.

The issue of the need to have a competent human resource that can work to build sustainable, resilient, and innovative Ivorian cities, is also taken into account in the country's development dynamics. Today, we see at the local level, professional orders that set up training programs adapted to local realities focused on the concept of sustainability and practice. This is in order to train the next elites of the Ivorian city of tomorrow.



“ At the School of Architecture of Abidjan, one of the major pillars of our training is sustainable development through practical and theoretical learning that addresses issues related to man and his interaction with space. ”

Pola Assi, Director of Studies at the School of Architecture of Abidjan



Adjame Abidjan-Ivory Coast, AIN 2022



“ The Ivorian city cannot develop from scratch, it is necessary to know the starting point, which is history, in order to preserve it and pass it on to future generations. ”

**KARAMOKO RICHMOND,
Director of Bio-Architects**



“ My daily struggle to build sustainable and resilient cities in Ivory Coast is to produce decent and affordable housing for women who live in shacks in precarious neighborhoods. Through my company, I have started a project of 5,000 homes in Awoé to help these women. ”

KOUADIO Victorine, real estate promoter, General Manager of KOMBAT

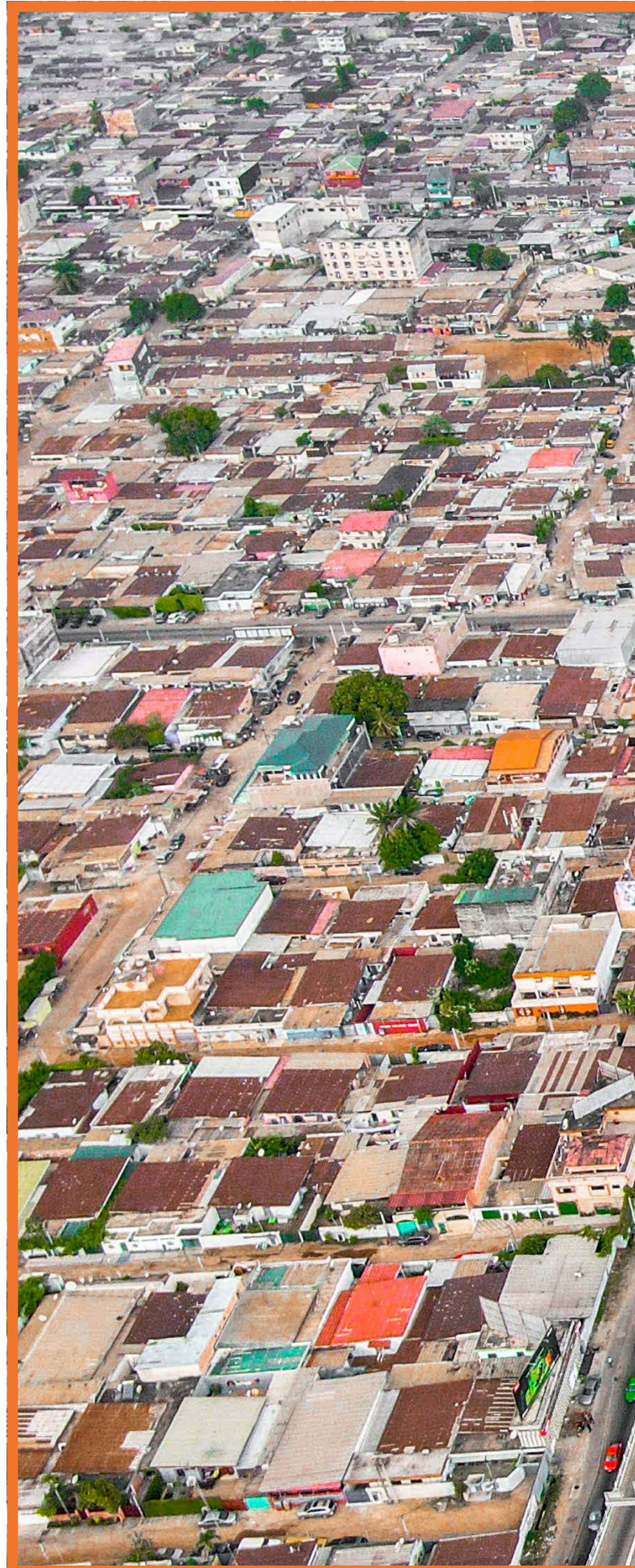
Ivorian cities, like many other African cities, are progressively joining the dynamic of digital integration in urban development projects.

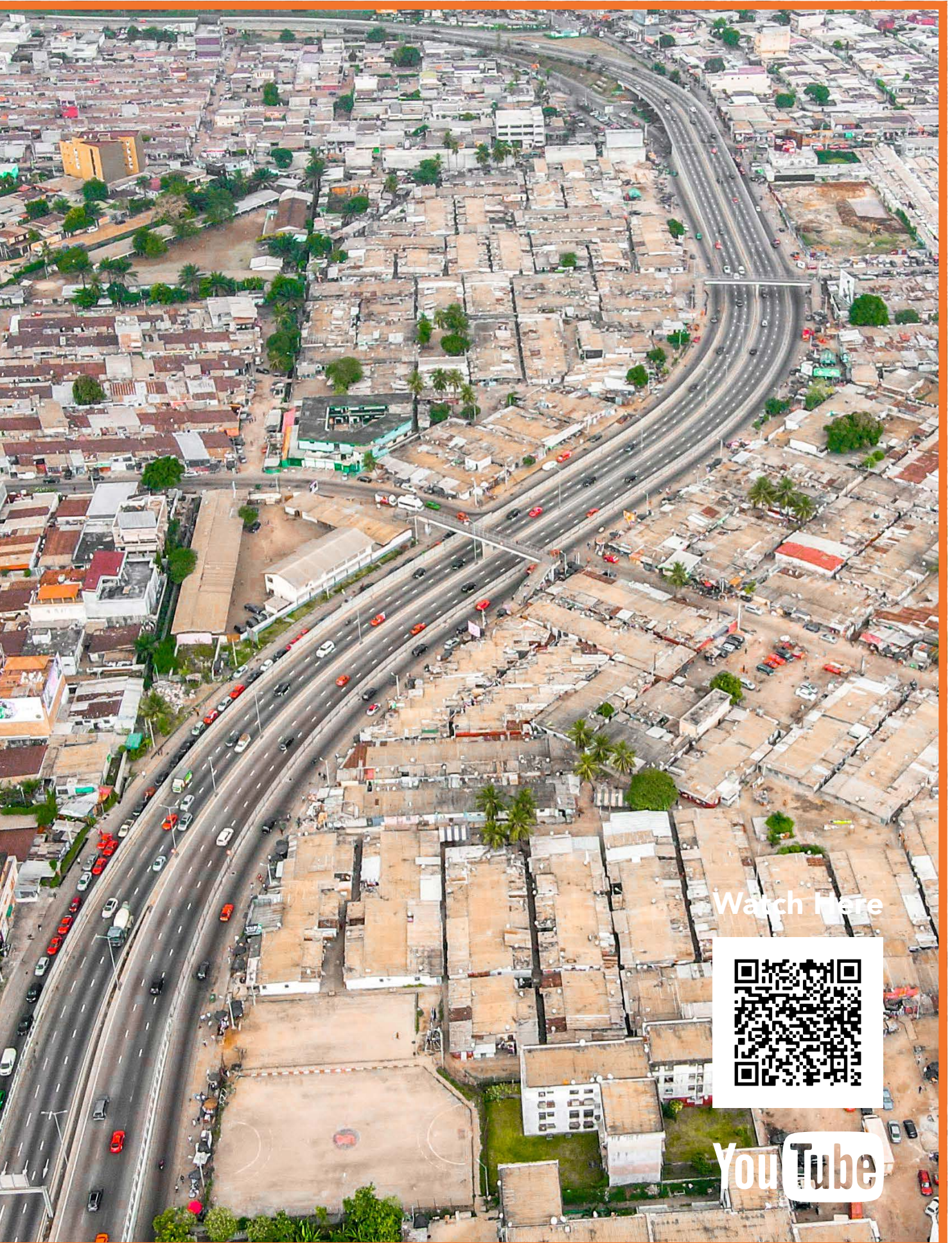
Today, with the evolutionary trends and the advent of new technologies, it is a question of appropriating these new ways of making the city while taking into account the context and local realities.

Technologies such as BIM, for example, are already being implemented in some Ivorian structures to create a collaborative working framework by allowing the participation of several actors on a single project.

This is notably the case at the BNETD, which has set up a studio to promote collaborative work between several experts. In a forward-looking vision of the Ivorian city of tomorrow, several factors must be brought together to guarantee sustainable, innovative, and inclusive development.

The reflections and initiatives to be implemented must be the sum of good ancestral practices, education and training of the future elites of the city, the integration of digital and new technologies in the way of making the city; a new model of governance, planning, and financing of the city. All this while remaining within a logic of sustainability.





Watch here



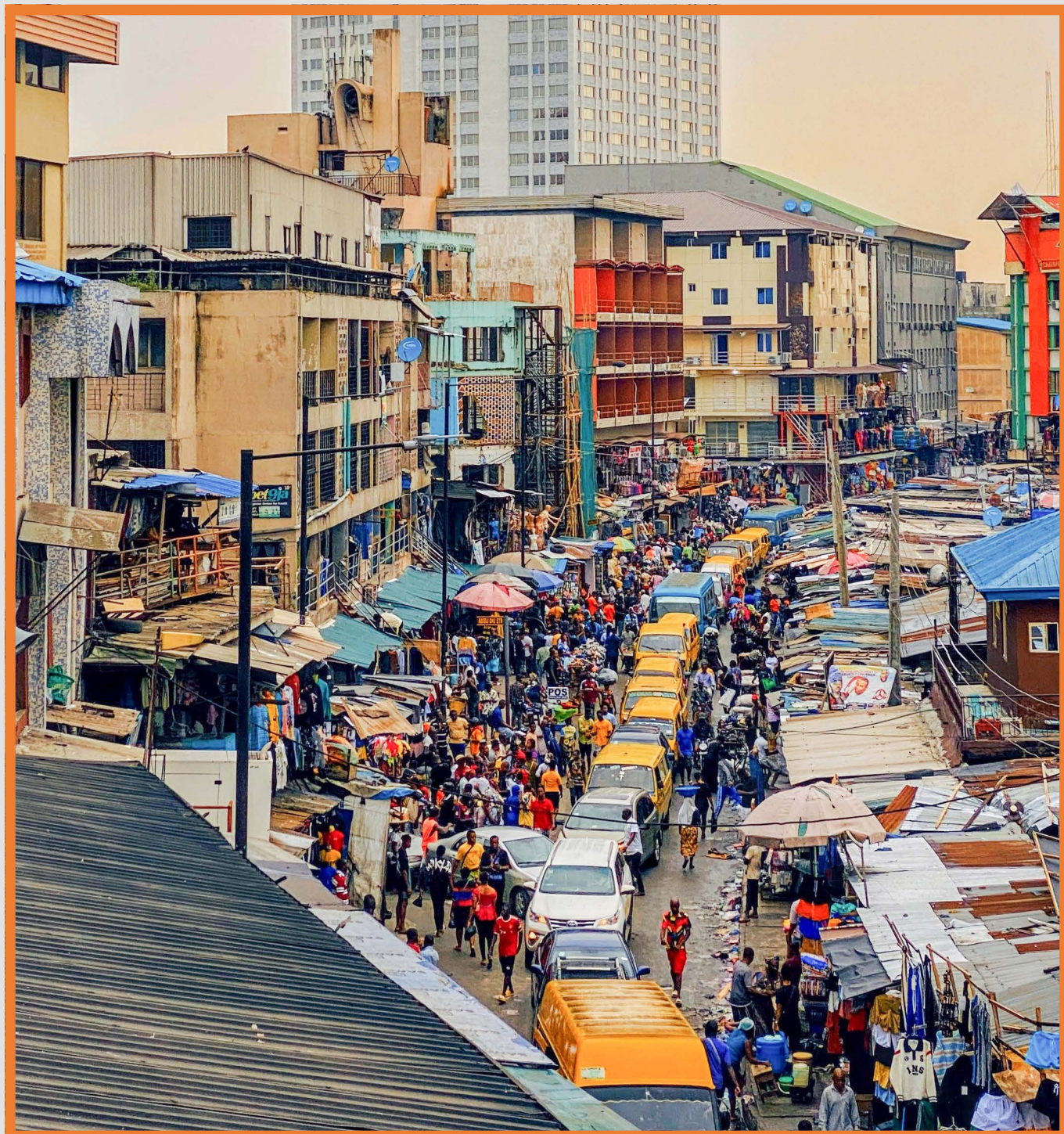
Urban planning Innovation





Lusaka-Zambia, Google earth, 2022

Crafting sustainable development research that matters



[namnsoukpanah, unsplash.com](https://unsplash.com/photos/namnsoukpanah)

How can the relationship and interactions between science, policy and practice be strengthened, in order to advance sustainable urban development? A new research agenda is needed, that understands the philosophical limits of existing scientific disciplines, institutional structures and urban practice.

“ Bridging the disconnect between science, policy and practice for African cities. ”

Science systematically builds and organises knowledge, in the form of testable explanations and predictions about the universe. Policy is a system of guidelines to lead decision making and achieve rational outcomes.

Urban practitioners work in urban areas and fulfil functional and practical needs to advance livelihoods within the urban space. Understanding the core areas of interface and limitations of each is fundamental to bridging the disconnect and strengthening the relationship between them.

Technological breakthroughs have historically paved the way for societal development. Scientific knowledge is the source of inspiration informing policy choices.

But often the impact of monodisciplinary fields, especially in the natural sciences, is limited by the complexity and interrelatedness of societal issues.

Challenges in scientific research are compounded by the departmentalised nature of national and subnational institutions responsible for integrating scientific evidence to advance social change.

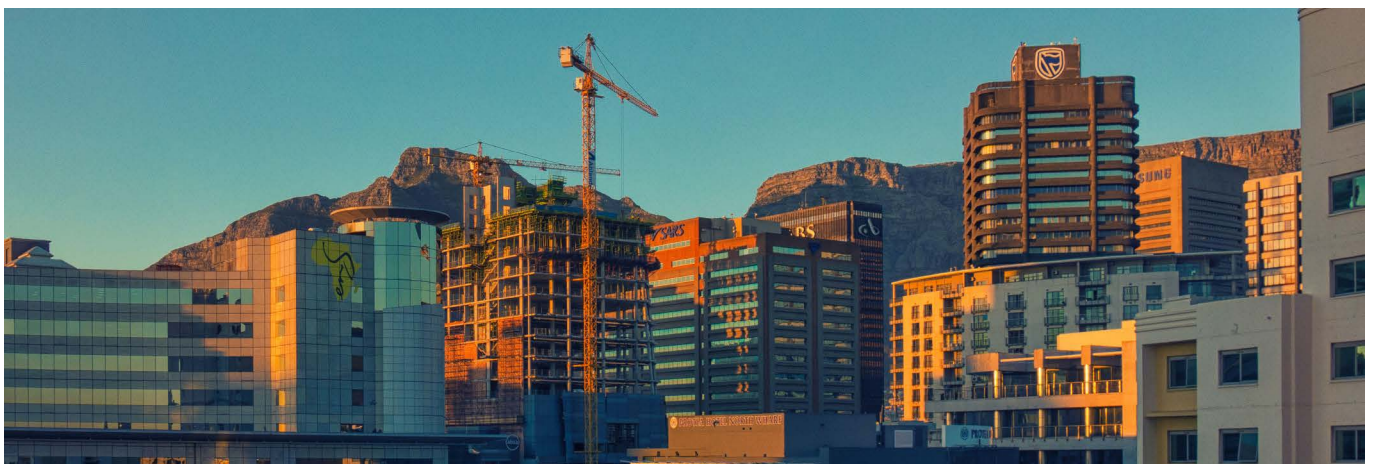
Our default patterns of reasoning can limit our ability to see the complexity and connectedness of particular issues.

In social science – where the boundaries of disciplinary research are less clear-cut and where social issues are seen as multifaceted – monodisciplinary or singular pathways of addressing interlinked issues are insufficient for tackling complex issues such as the climate crisis. Additionally, overreliance on scientific knowledge, with its embedded scientific logic, rigorous methods of inquiry and emphasis on verifiable facts, comes at the expense of what is deemed non-scientific knowledge, such as indigenous knowledge passed down through generations of practice.

In urban studies, translating scientific research into tangible societal outcomes has proven ineffective across African cities. There is an abundance of broadly unsustainable development programmes, grappling with the challenges of project scaling, integration, and transitioning from pilot projects into programmes with broader societal impact. Although researchers and funders acknowledge these challenges, the pace of reform to bridge the disconnect between science, policy and practice has been relatively slow. The success of approaches and strategies adopted by urban researchers to ensure research uptake is often short-lived.

A conceptual shift is needed, from doing “science for society” to doing “science with society”. This implies research methods that enhance knowledge co-production, from project inception to implementation. Mapping out stakeholder interests and establishing effective engagement strategies across science, policy and practice domains must be central to unlocking knowledge exchange.

This will allow expectations to be managed and key influencers to be identified, as well as the real winners and losers, who are impacted and influenced by the proposed development reforms.



rohan-reddy, unsplash.com

“ Deepening science-policy-practice interaction. ”

Despite increased recognition of the need to ensure research uptake, mainly with the adoption of the New Urban Agenda III, local governments are still predominantly focused on a compartmentalised framing of urban issues.

In many cases, the resulting interventions are not supported by science or place-based knowledge at the national and local levels.

Insufficient uptake of scientific evidence is mainly related to the communication gap in the scientific, policy and practice domain.

This is intensified by a lack of institutional structures and spaces for dialogue to facilitate the transfer and co-creation of knowledge.

The Covid-19 pandemic demonstrated the need for such structures, and for a more institutionalised role for science, to ensure that policy responses and solutions were supported by the latest and best available scientific knowledge, as well as place-based knowledge.

Dealing with such a complex and multidimensional issue, with multiple drivers and potential impacts, also required a systems approach, engaging a wide range of actors beyond the scientific sphere.

Better communication of scientific evidence is therefore critical for research uptake and integration.

It strengthens the dialogue and collaboration required to work at all levels of the research spectrum and builds an understanding of the methods and values of communities engaged.

For example, role-playing in workshops can communicate urban challenges in experiential ways that make them more accessible to policymakers and social actors.

In addition, dialogue platforms can unlock the wealth of scientific knowledge generated by academic and research institutions published in academic journals that is often beyond the reach of policymakers and local actors. Beyond the networking opportunity of these platforms (forums, festivals, conferences and workshops), they create an enabling environment to share knowledge and galvanise action for change in science, policy and practice.



Beth Chitekwe-Biti and Shuaib Lwasa (pictured) participated in the RISE Africa Festival session on crafting sustainable development research that matters.

ICLEI Africa's RISE Africa Festival of urban innovations and practice, is a dialogue platform which showcases these important connections inherent in science, policy and practice.

Described as a "movement of urban thinkers, doers and enablers committed to inspiring action for sustainable cities", RISE Africa breaks down the complexities of urban challenges and makes them accessible to a broader audience.

Since May 2020, the platform has facilitated monthly online activities, including showcases, roundtables and thematic webinars, to engage a growing community of over 1,400 scientists, policymakers, practitioners, citizens and city officials. The May 2022 edition of the Festival took the theme of Creativity, Agency and Urgency.

It was organised around three core sessions and daily parallel sessions from a wide range of speakers, facilitators and hosts across the science, policy and practice spectrum.

One session delved directly into how we can craft sustainable development research that matters.

Two speakers from either end of the knowledge system – researcher Professor Shuaib Lwasa and practitioner Dr Beth Chitekwe-Biti – were invited to advance the debate from a more reflective perspective.

Professor Lwasa underlined the need to consider the interests of local communities, including young people's aspirations, in conceptualising and designing research.

He cited the inappropriate application of European housing standards to communities in informal settlements, and made the case for considering local innovations.

Dr Chitekwe-Biti stressed the importance of strong advocacy to connect with local communities, and for authorities to ensure a shared understanding of the importance of research, in order to co-create new ideas to improve the livelihoods of low income households.



Akwa, Douala-Cameroun, Leandry JIEUTSA 2021

“ In order to facilitate interaction between science, policy and practice that catalyses meaningful sustainable development in African cities, and to ensure that we are producing research that matters, ICLEI Africa makes five key recommendations: ”

1. In cooperation with scientific, academic and research institutions, and community practitioners, subnational entities must establish multi-stakeholder knowledge-sharing platforms to unlearn entrenched biases and re-learn new forms of collaboration in addressing complex issues. These platforms will enable local urban stakeholders to access scientific knowledge and technological innovations and to learn from practical local solutions. Access to lessons learned, and best practices that are compatible with local conditions, governance and development contexts, is essential to ensure inclusion of local communities.
2. Enhance the capacity of local communities to interface between the science and policy spaces. This requires building skills and capacity to develop interactions and establish bridges between institutions and local actors, enabling more efficient and productive use of knowledge. Knowledge brokerage and synthesis can help to identify the necessary fit for the locality to support implementation and help co-produce knowledge with decision-makers and communities.
3. Local authorities and scientific communities should foster a new support function, in the form of “facilitators”, in collaboration with local universities, research institutions and community practitioners. The facilitators could assist on-site stakeholders in discovering and sharing needs, raise awareness of problems, and facilitate access to information to support problem resolution. They could also disseminate good practices, success and failure stories and lessons learned from other locations. Their role could be formalised with long-term partnerships or multi-sector alliances.
4. Universities and research institutions should incentivise students and scientists by offering training opportunities for supporting on-site implementation, thus developing holistic thinking. Universities should promote systemic approaches, so that undergraduate students not only acquire knowledge and concepts but are also taught how to link these to lived realities.
5. Establish mechanisms at national, regional and international levels to create enabling environments for young scientists to play a central role in co-creating and sharing knowledge and to support evidence-based local practices to translate knowledge into action. Further, governments and international organisations should explore concrete means of support, including technical training, best practices promotion, and seed funding.



Medina, Tangier-Morocco, Leandry JIEUTSA 2022



Antananarivo-Madagascar, Google earth 2022

The geopolitics of urban governance – an innovative approach to coproduce knowledge



Dakar-Senegal, Leandry JIEUTSA 2022

The number of research initiatives on Africa's cities and on how to regulate their growth has been growing.

Multiple stakeholders contribute to urban governance and many of them conduct their own data collection and produce research results.

Yet, the channels and interaction between most of these organizations and experts remain limited and unexploited.

This research program, launched at the French Institute of International Relations in May 2022, aims at providing a platform for these stakeholders to meet, share their expertise, and coproduce knowledge in three interrelated key areas of urban governance: land, mobility, and infrastructure.

The program is based on a multi-stakeholder consortium whose members are scholars, local and national decision-makers, civil society organizations and foundations, development agencies, international organizations, professional bodies, and actors from the private sector – all of whom are directly involved in different sectors and activities related to urban governance.

Cross-cutting reflections, research workshops, publications, and more classical events, such as webinars and conferences, held in European and African cities, will be the main components of the program.

The first year's activities will focus on the politics of urban governance, growing geopolitical competition around urban infrastructure and innovative governance approaches for medium-sized cities.

In the past decade, urban growth in Africa has received a great deal of attention by the international community. More particularly since the objective to create inclusive and sustainable cities was included in the list of the 17 Sustainable Development Goals in 2015, diverse stakeholders from different sectors (private, bi- and multilateral donor agencies, civil society and grassroots movements, municipalities, national governments, etc.) and on the local, national and international level have developed programs, launched initiatives and built their agendas around urbanization dynamics on the continent.

Policy programs, development projects, municipal diplomacy initiatives but also investment and finance models – all aiming at contributing to urban development on the continent – have been designed and implemented by multiple types of stakeholders and institutions.

Altogether, they form a dense and multi-scalar web of actors, initiatives, relationships, and competition that constitutes and characterizes urban governance (Förster, Amman, 2018; Bekker, Fourchard, 2013, Myers, 2011).

Research initiatives dealing with the transformation of Africa's cities, too, have been increasing, but are not that recent. Scholars from multiple disciplinary fields – especially in Western universities - have been creating knowledge, especially since the 1950s.

This corpus includes extensive debates on nature, the actors, and, to some extent, the politics of urban governance (see an overview of the literature in Schlimmer, 2022). But knowledge production on Africa's cities and urban governance is not an exclusive domain of seminar rooms and academic journals: development agencies, specialized civil society organizations, international networks (UCGL, FMDV, etc.) and professional bodies have produced reports with precious empirical insights, based on quantitative and qualitative data collection or event restitutions. In a nutshell: as numerous as the stakeholders involved in the governance of Africa's cities are the research initiatives creating awareness and data.

In this context of vivid debates and increasing expertise, two major problems are encountered: one is the limited communication and collaboration of the members of this research and the urban governance community.

With each institution being caught up in its own schedules, objectives, and thematic foci, it can be difficult to identify similar research initiatives led by other organizations.

Second, it is common ground that after their publication, some data and reports remain in drawers, while new projects and research initiatives are already being prepared. Related to this problem, some institutions are reflecting on how to enhance the promotion and extend the outreach of their research products.

The research program on "Governing the urban transition in Africa" coordinated by the French Institute of International Relations (Ifri) aims at creating knowledge on urban governance by developing approaches to address these issues, which concern the linkage of research, its social usefulness, and concrete action. The architecture of the program itself reflects this problem-solving-oriented research approach: it is based on the aim to coproduce knowledge by different key stakeholders involved in urban governance both internationally, bilaterally, and nationally.

Starting in 2022, the project focuses on continental, regional, country (Côte d'Ivoire, Kenya, Nigeria, Senegal, and Tanzania) and neighborhood studies addressing three interlinked key areas of urban governance: land, mobility, and infrastructure.

One of the first year's key topics is the increasing focus of governments, the international community, but also companies on the promotion of medium-sized and new cities.

The publications will focus, for example, on the lessons learned from the "new city"-project in Diamniadio. Initially announced as an initiative to decongest the Senegalese capital city Dakar, reports, and discourses about its ghost-

city character and the limited viability of ex-nihilo urban creations have been increasing.

Another research deals with medium-sized cities in Nigeria, where urban policy research has largely focused on the exponential growth of the mega-city Lagos. The results of this research will be presented and discussed during online dissemination results involving decision-makers and experts from the concerned countries.

Ifri's Sub-Saharan Africa Center is organizing a research program on the major challenges of urban transitions in Africa (2022-2024). It has established a consortium composed of experts from international organizations, the targeted study countries, as well as France and Germany



(and the network is still growing) who cover the following professional fields: multilateral and key international organizations in the field of urban governance in Africa, bilateral development agencies, academic institutions, private sector/companies involved in urban infrastructure development, mayors, professional bodies (e.g. in the fields of land and planning), such as foundations and civil society organizations.

Prior to the establishment of the consortium, a one-year consultation phase with stakeholders based in France, Germany, and Kenya helped to meet and discuss with researchers, experts, and representatives of different institutions in order to understand their approaches to and definitions of urban governance, to learn about

their activities and to identify their needs both in terms of knowledge production and dissemination of their own research initiatives.

Based on these interviews and working sessions with the members of the consortium, a map of existing initiatives and data was created, ideas to harness their impact and increase their outreach were developed and a pool of research areas that are yet to be addressed was set up.

There is a need for further insights in the interrelated fields of land issues, infrastructure financing, and mobility, that this program will address by using case studies, including capital and medium-sized cities in Côte d'Ivoire, Kenya, Nigeria, Senegal, and Tanzania.

Coproduction of knowledge is the key concept of this consortium. It will be implemented through different ways of data collection, analysis, and research dissemination.

“ **Multi-stakeholder ateliers on different aspects of urban governance** ”

In addition to classical webinars and an annual conference organized on a rotating basis in a European and an African city, workshops will be key moments of coproducing, sharing, and exchanging.

The partners of the consortium will come together to discuss selected topics. During the first year of the program, the events will deal with sustainable finance of “new city” projects. Based on Ifri’s experience as a leading think tank on international relations, the event will address the question of urban infrastructure finance as a fertile ground for geopolitical competition as the numbers of PPPs and funding agreements between African governments with “traditional” and “new” partners (e.g. Turkey, the Gulf states, China) are increasing. Another webinar will address different approaches to urban governance in medium-sized cities including decentralized cooperation and city diplomacy.

During these events, the participants will share their everyday professional experiences by confronting them with the perspectives and analyses of experts and researchers. Vice versa, researchers and experts will have the opportunity to get in touch with professionals, practitioners, and decision-makers involved in the land, mobility, and infrastructure sectors of urban governance. The aim is to create a constructive learning environment, whereby all participants are interested in overcoming institutional boundaries and thematic silos.



Lubumbashi-DRC, Leandry JIEUTSA 2022

“ Breaking the knowledge boundaries between the “Global South” and the “Global North” ”

One of the main observations of research on Africa's cities is that governance and planning tools, standards, and models are largely inspired by Western approaches, some of which have proven incompatible with the realities of urban life on the ground (Lindell, 2008).

The pool of researchers and experts involved in the program have worked in international, African, and European institutions and gained experience in city-making in different contexts. They will contribute to cross-cutting discussions and deconstruct dominant approaches. Comparative and co-authored papers confronting case studies and crossing disciplinary approaches are encouraged.

The research products will focus on different scales of analysis stretching from the continental to the neighborhood level.

“ A growing network of scholars, experts, and professionals ”

The consortium and the events, which will be organized are thought of as a platform for exchanging, learning, and networking.

The network will grow over time by including more institutions, experts, and especially young scholars interested in groundbreaking policy- and action-oriented research on urban governance.

Practitioners from different urban sectors sometimes point out the limited direct and measurable impacts of research on urban projects and target communities.

Although this research program's aim is not to formulate fixed and compact turnkey solutions for urban governance, its foundation on a multi-stakeholder consortium will facilitate the accessibility and comprehensiveness of the research results by a non-academic and action-oriented audience and increase its significance.

Our coproduction approach will help to include the perspectives of stakeholders from different professional fields related to urban governance in the research design.

The insights and knowledge created will trickle down through further activities and approaches of the program:

Restitution events: Most of the published studies (long and short formats), published in English and French will be presented by their authors during webinar cycles and/or during the annual conference, which is open to the public audience.

The first annual conference is planned in Dakar in 2023 and will bring together experts and junior researchers from the region to share knowledge and discuss land, infrastructure, and mobility challenges in new-city projects that have been established in the region.

Some of the conducted research work will also be presented during smaller multi-stakeholder workshops, whereby practitioners from the consortium can directly share their concerns regarding the relevance and the reuse of the research results in their own daily work.



As far as funding is available, regional and local restitution events will allow the target population of specific urban projects as well as the representatives of civil society and grassroots organizations to share their feedback and comment on the significance of the research results.

Scientific collaborations between different learning institutions:

As far as the topics allow for it, our scholars will be encouraged to co-author their papers with colleagues from other research institutes thereby aiming to identify synergies between learning institutions and broadening the network.

Ifri works closely with the French Research Institutes Abroad (UMIFRE), which are platforms strengthening the scientific collaboration between French scholars and research labs all over the globe.

The offices in Nairobi, Kenya, and Ibadan, Nigeria are close partners who help us identify young scholars and experts as well as research initiatives dealing with topics related to urban governance.

Active consortium members represented in our target study countries:

In addition to the scholars who are conducting fieldwork, the research consortium is composed of international organizations, development agencies, foundations, and companies with offices in our different target study countries. They are concretely involved in different aspects of urban governance, such as the formulation of policies, urban planning, the financing, design, and implementation of infrastructure, but also the support of civil society organizations.



Launching event seminar

The active presence of our partners on the ground, including researchers, UN-Habitat, the Friedrich-Ebert-Foundation, the French Development Agency, but also Bureau Veritas, Egis, Meridiam, Orange, and Société, is crucial during the dissemination of our research results, during their own events and activities, but also when co-organizing restitution seminars on-site.

They will also be nods to the local networks that we intend to build and extend during the program.

Being thought of as a multi-stakeholder research consortium, our program is a groundbreaking initiative, which aims at tapping into the expertise of the various stakeholders involved in urban governance to coproduce relevant and socially useful research.

After one year of conducting a literature review, networking, and several series of consultation meetings, the research program “Governing the urban transition in Africa” was launched in May 2022 at Ifri in Paris.

The consortium members came together to prepare and validate the programmer’s first-year roadmap and decided both on the research agenda and the events to take place. Land, infrastructure, and mobility will be dealt with as interlinked key domains of urban governance.

The assessment of these sectors is particularly relevant in medium-sized cities, which reflect some of the highest urban growth rates on the continent.

The first year’s agenda also sets emphasis on the politics of urban governance, including the growing geopolitical competition around urban infrastructure projects by so-called “traditional” and “emerging” partner countries.

The foundation of the research consortium has been led, but it can only live and grow if further experts, scholars, and partners will join the adventure and feed our reflections and debates on urban governance during its implementation.



Rond point Deido, Douala-Cameroun, Leandry JIEUTSA 2022



Street market, Dakar-Senagal, Leandry JIEUTSA 2022

Fast-tracking urban (re)development for livable places: the Urban Fabric Initiatives



The «Penc' Mobile», a meeting and dialogue device in the public space, Studio-Bainem 2021

Urban Fabric Initiatives (UFIs) are small-scale public space upgrading and community infrastructure projects co-designed and co-produced by citizens and urban stakeholders (public local and national authorities, service providers, and local economic actors...).

They are implemented alongside and in coordination with larger-scale urban (re)development programs funded by the French Development Agency (AFD), and inspired by participatory urban development and placemaking approaches.

Initiated by AFD, the aim of the UFIs is to experiment, promote and develop inclusive, participatory, agile approaches and tools to improve the quality and local ownership of urban projects. UFIs place user communities and residents at the center of decision-making, management, and design, with particular attention to the most vulnerable groups of users and inhabitants.

UFIs seek to demonstrate at the local level and at the small scale that participatory, multi-stakeholder city-making is possible and effective with the aim to contribute to shifting urban development practices and improving the quality of urban spaces for all.

UFIs have been implemented since 2018 in two cities in Tunisia (Tunis and Gabès), Ouagadougou (Burkina Faso), Dakar (Senegal), Abidjan (Ivory Coast), and Nairobi (Kenya).

Each of these is deployed by local UFI coordinators - civil society organizations, NGOs, research centers, and/or architecture studios rooted in the local context and experienced in participatory processes, in partnership with the local authorities.

Future UFIs should emerge alongside urban (re) development projects funded by the AFD across a variety of African cities and beyond (Asia and Latin America).



Pikine, in the suburb of Dakar: a community laughing on site, PUO 2021



Pikine: a co-designed public space, Studio-Bainem 2021

As they aim to transform urban landscapes lastingly, urban (re)development, mobility, and infrastructure projects face different challenges and difficulties. Due to various issues to consider, they often take time to start and be implemented.

Besides, in some cases, primary infrastructure, such as new transportation routes, is not integrated with the surrounding local urban fabric. In others, publicly financed social infrastructure is not co-designed with the (future) user communities and residents and may fail to respond to local needs and adapt to existing practices.

As a result, the positive transformational potential of urban development projects may be hampered by their scale and the lack of ownership by local communities (residents and end-users of the projects).

In the longer term, the positive societal and economic impact of infrastructure and urban services that are not satisfyingly catering to local needs and are less appropriated by user communities will be lessened and maintenance costs will increase.

Acknowledging some of these shortcomings, the French Development Agency (AFD) set up the Urban Fabric Initiatives (UFIs) to develop participatory, inclusive, experimental approaches alongside large-scale urban (re) development projects. Before becoming a multi-country program of its own, the UFI approach started as pilots in Ouagadougou and Tunis in 2018.

The pilots explored new ways of designing social infrastructure through a bottom-up approach to enhance the acceptability and sustainability of public investments in urban infrastructure, and respond to an urgent need for action.

Given the success of the initial UFI experimentations in Ouagadougou and Tunis, AFD decided to expand the initiative to other cities where they support urban development programs and to entrust the design and management of the emerging UFIs in the hands of NGOs, civic organizations, architecture studios, and research centers.

The opportunity to finance an UFI is discussed with the local public stakeholders. Each UFI has a duration of approximately 2 years (potentially extendable for an additional 2-year period), during which it transforms and activates various sites, and is implemented in partnership with the local authorities.

In Tunisia, Abidjan, and Nairobi, the UFIs are being deployed alongside AFD-funded urban renewal programs that are spearheaded by national agencies (depending on the context, the ministry for construction or urban development and urban renewal) and local authorities.

Through co-design approaches, leftover spaces from the urban renewal projects are being upgraded for community use, or potential future uses are identified in the cases where the urban redevelopment project is yet to be implemented.

The co-design methods engage the communities in the decision-making processes leading to the transformation

of their neighborhoods and allow for the authorities and sectoral agencies to increase their understanding of local needs.

In Ouagadougou, spaces earmarked by the City authorities for the construction of social and cultural infrastructure are temporarily transformed and developed to test future uses and adapt the infrastructure facilities to the actual needs and desires of the population.

In Dakar, the UFI is upgrading residual land resulting from the urban mobility projects (Regional Express Train and Bus Rapid Transit) that are sustainably transforming the face of many of Dakar's neighborhoods and particularly of its periphery.

The playgrounds, multifunction spaces, leisure, and sports facilities, and public spaces resulting from the UFIs do not only immediately impact the lives of local communities but also contribute to transforming the process through which urban transformations take place on a broader scale, at the urban project level.



Rufisque, in the suburb of Dakar: a multi-use shelter responding to users's expectations. Studio-Bainem 2021

Participatory urban planning, co-design, placemaking, and tactical and temporary urbanism are not new to urban development. These approaches have been practiced ever since people create places and build cities. Sometimes they have been formalized and structured, in coordination with public and private urban stakeholders and decision-makers, and civil society.

In other cases, and for the majority in Global South contexts, many of the processes underpinning the “collective urban fabric” result from everyday city-making, and relatively spontaneous, non-regulated processes.

Particularly in Africa, the urban fabric is majoritarian the result of the efforts of a wide range of non-state actors, including citizens and informal workers: as an example, in Senegal, 80% of housing is built through self-help processes (user developed), 53,3% of local trade is made up of street vending and 42% of the national GDP is created in the informal sector employing 80% of the population.

Recently, there is an increased readiness by policy-makers and urban professionals alike not only to acknowledge the efforts of what was referred to as “informal” city-making but also to learn from these practices.

Particularly, given that participatory, tactical, and temporary transformation of the urban space,

implemented from the bottom up, are oftentimes frugal (cost-efficient) while catering to concrete and immediate needs of urban communities.

UFIs are one such example of the willingness to introduce more agile and bottom-up approaches to institutional urban development practices.

Their particularity lies in the opening - before, during, and after the implementation of public-led urban (re) development projects - an avenue for the co-production of public spaces, community infrastructure, social facilities involving all stakeholders: local and national authorities, communities of users, residents, local economic actors, sectoral agencies.

The hope is to replicate the participatory approach and the multistakeholder dialogue resulting in the transformation of a few sites and spaces in each UFI city at a larger scale: by transforming urban planning practices, increasing mutual trust between communities and public authorities, and experimenting not only with more participatory and inclusive city-making approaches but also introducing more sustainable uses of resources (sustainable building material, solar energy for public lighting, waste management and circular economy) and generating positive impacts for the local economy (skills training, income-generating activities).



Pikine, in the suburb of Dakar: a community diagnosis workshop on the «Penc'Mobile», Studio-Bainem 2021

The experimental processes implemented in each UFI hence aim to contribute to the wider conversation on sustainable and participatory urban development.

Since 2018, the UFIs upgraded 25 sites across five cities, (5 in Dakar, 7 in Ouagadougou, 9 in Tunisia, and 4 in Abidjan), implemented 141 community-led micro-projects on those sites, and developed 2 mobile community engagement tools. 3-5 additional sites are earmarked for community-led upgrading in the UFI that is being launched in Nairobi. As an example, in Ouagadougou, 15,000 people have directly benefited from the project (improved leisure and service facilities, quality of life, and reduced environmental and health hazards).

This number includes individuals who use the facilities on the intervention sites on a weekly basis (2,000), those who have participated in one or several of the UFI workshops and training sessions (3,000), beneficiaries of the CSO-led micro-projects (7,000), and participants in the cultural and sports events (3,000 athletes, artists, technicians). Indirect beneficiaries include residents of the neighborhoods impacted by the UFI projects and amount to several hundred of thousand people for the 5 ongoing UFIs.

UFIs particularly engage with vulnerable populations and groups - such as women, children and youth, people with

disabilities who see their needs taken into account in the design process and benefit from improved access - and various types of stakeholders (user communities and their leaders, local authorities (4 in Dakar, 3 in Ouaga, 2 in Tunisia, 3 in Abidjan, 1 in Kenya), national authorities, including service providers and various ministries, international donors and organizations, religious and community leaders).

Besides, beneficiaries include craftsmen, and female and male community leaders who have been trained on (sustainable) construction techniques, administrative and financial management of CSOs/CBOs, and site maintenance. By providing a platform for income-generating activities (such as food stalls, and gym courses) and contractualizing with local craftsmen, UFIs contribute to enhancing the local economy and local entrepreneurship.

Some of the positive externalities that were observed and reported upon by beneficiary communities and project operators include: transformative urban governance practices, dissemination of new and transferable approaches towards achieving more sustainable and equitable urban development, increased urban resilience, enhanced local economy, and a change in urban narratives (of deprived places).



Pikine, in the suburb of Dakar: a children workshop with a model of the neighbourhood, Studio-Bainem 2021

UFIs are small-scale public space upgrading and community infrastructure projects co-designed and co-produced by residents and urban stakeholders alongside AFD-funded urban (re)development projects.

Since its inception initiated by AFD in 2018, UFIs has been developed in five African cities and resulted in improved 25 public spaces and social facilities, located majoritarian in deprived neighborhoods.

The participatory and inclusive design process of the upgrading and urban transformations under the UFIs have also improved the inclusion of marginalized populations, with the needs of the vulnerable being taken into account not only in the design but also in the implementation and governance of the spaces and facilities.

Importantly, UFIs seek to contribute to a lasting change in decision-making and governance processes regarding urban projects: user communities engage in a dialogue with public service providers and authorities at the

national and local levels to co-define the design, access, and maintenance of public and social facilities, and secure open spaces for public use.

UFIs set new standards for local and national authorities who are increasingly open to civic participation in the public realm.

UFIs build trust and the conditions for coexistence and co-production between local/national authorities and residents, user communities (with different recreational and economic interests), the elderly and children, men and women, etc.

Given the success of the initial UFI experimentation, the program has organically expanded to five countries, with two more UFIs soon to be launched in Antananarivo and Monrovia, and has ignited collaborations with UN-Habitat's Public Space Program, activist and urban practitioners' networks such as the Center for African Public Space and the Placemaking network.



The «Seentoukay», tools to see and heard differently its own environment, Studio-Bainem 2021



Pikine: a co-designed playground, Studio-Bainem 2021

Sports infrastructure to boost territorial development : The Olympic city of Anyama Ebimpe in Ivory Coast



Chosen to host the African Cup of Nations 2024. The State of Côte d'Ivoire has undertaken significant investments to build sports infrastructure in five host cities, namely Abidjan, Bouaké, Korhogo, San-Pedro, and Yamoussoukro.

In Abidjan, a 287-hectare area has been acquired by the state on the northern outskirts of the city where a 60,000-seat Olympic stadium has been built.

In order to control urban development around this stadium in the short term and to host major international sporting events in the decades to come, the State of Côte d'Ivoire has entrusted the Bureau National d'Études Techniques et de Développement (BNETD), in partnership with JESA SA of Morocco, with the development of a 267-hectare Olympic city around this stadium.

This city has a sporting vocation and will have to concentrate a whole of equipment and infrastructures in particular of the fields of training, the stadiums of competition, an arena, an Olympic swimming pool, administrations, hotels, retails, residences, health centers, etc.

The need to host high-level mixed sports competitions simultaneously led the Ivorian government to develop an urban hub around the Olympic stadium located in the town of Anyama in the north of Abidjan.

Today, this township with a population of 119,514 inhabitants is undergoing significant demographic and land pressure.

The construction of the Olympic stadium and the 37km North-South metro line will accentuate the land, economic and cultural pressures in this area of the city of Abidjan.

The Olympic city is positioned as a vast urban hub of sports activities while playing a role in urban balance in the north of the metropolis of Abidjan.

Thus, five major issues have guided the development of the Olympic City of Ebimpé, namely:

- Ensure the urban integration of the project through its connection to the existing urban fabric;
- Facilitate soft mobility for future users from Anyama, its future multimodal hub, through the implementation of a bus line by the local authorities
Integration of bus stations in the development plan;
- Preserve sensitive natural areas;
- Use the Olympic City project to guide the restructuring of surrounding informal settlements;
- Provide social/economic housing, particularly to relocate populations living in self-build areas.



Olympic city of Anyama Ebimpe

One of the urban planning approaches that guided the elaboration of the Masterplan was to constitute the urban fabric of the site in such a way as to ensure both its urban integration with its context and to offer it its own identity. This was done in particular by taking advantage of rainwater runoff and by creating green spaces in the low points of the site. Also by enhancing the landscape by optimizing the views from the relief.

The development also allows for the combination of density and remarkable views of the landscape to create desirability by making the most of these spaces for future residents and visitors. This is achieved by considering the road network as second-density support.

This approach allows for the transformation of the constraints of the site into an opportunity, to enhance the views of the natural and urban landscape, control the speed of the vehicles, and develop pedestrian continuities associated with green spaces that are preserved from traffic.

The master plan of the Olympic City allows the issue of land use to be addressed from the perspective of density, in order to develop a certain functional mix and associate residential density and quality of life in easily accessible spaces.

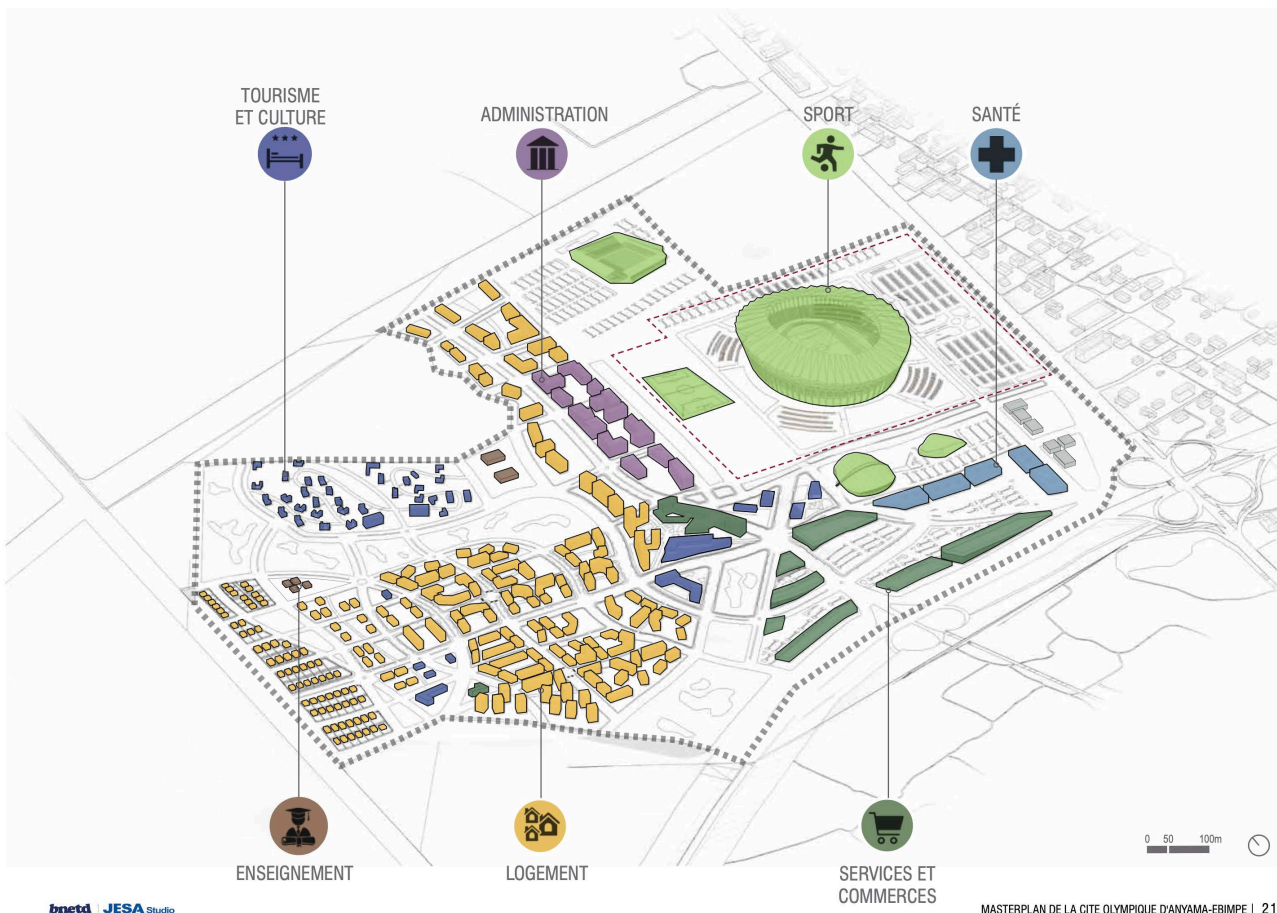
The Cité Olympique is perfectly integrated into the Abidjan metropolis, as it is only an hour away by car and public transport systems will serve several points in the capital.

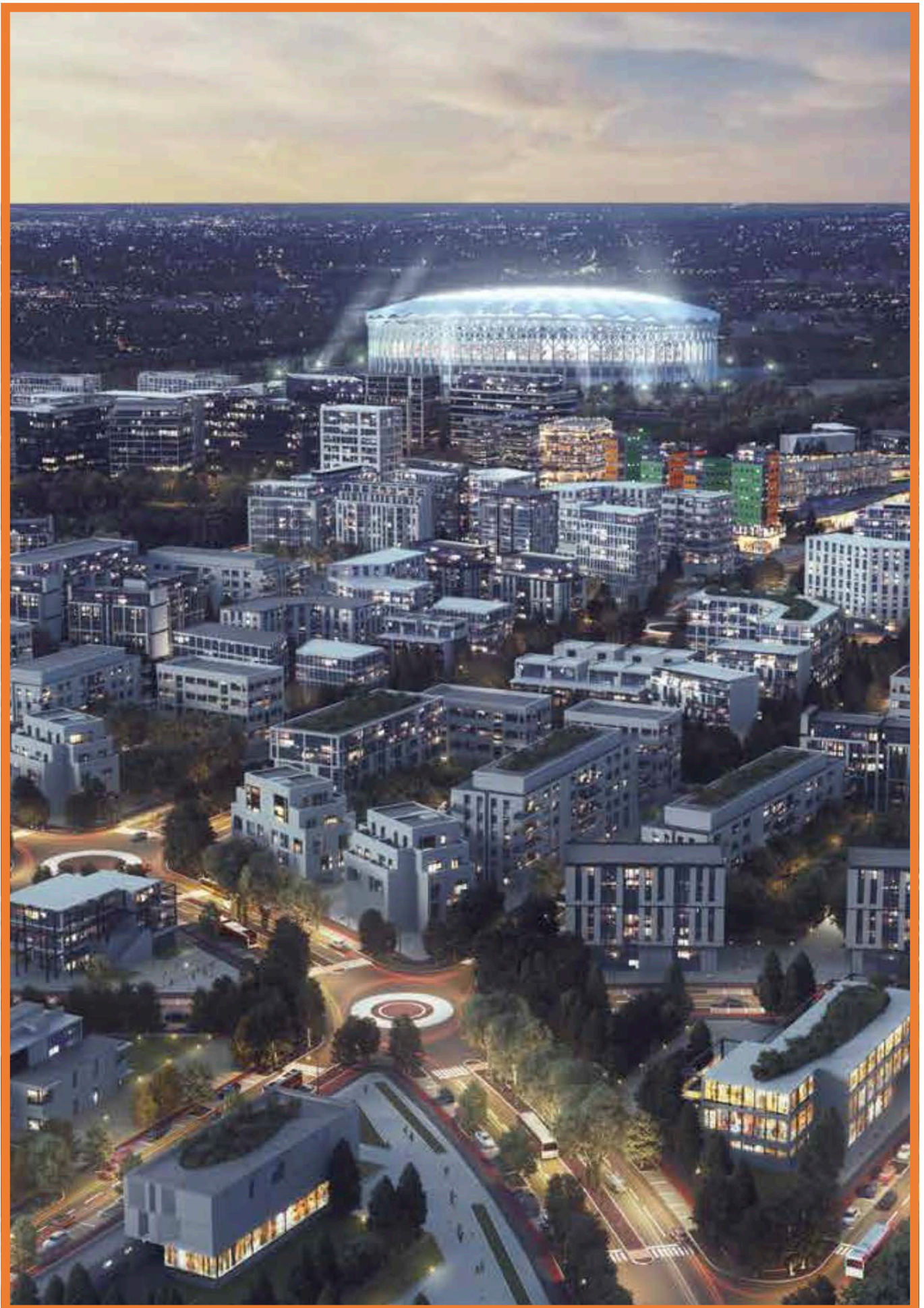
Mobility within the city is thought out in an integrated manner with hierarchical roads. Two of the main roads intersect to form a central node that constitutes a centrality in the heart of the city. This centrality is therefore a meeting place, a gathering place, a large square, as well as the heart of the city.

The economic and social impact of the project is important because the site will be used for its influence to make it a pool of more than 10,000 direct jobs and more than 15,000 indirect jobs.

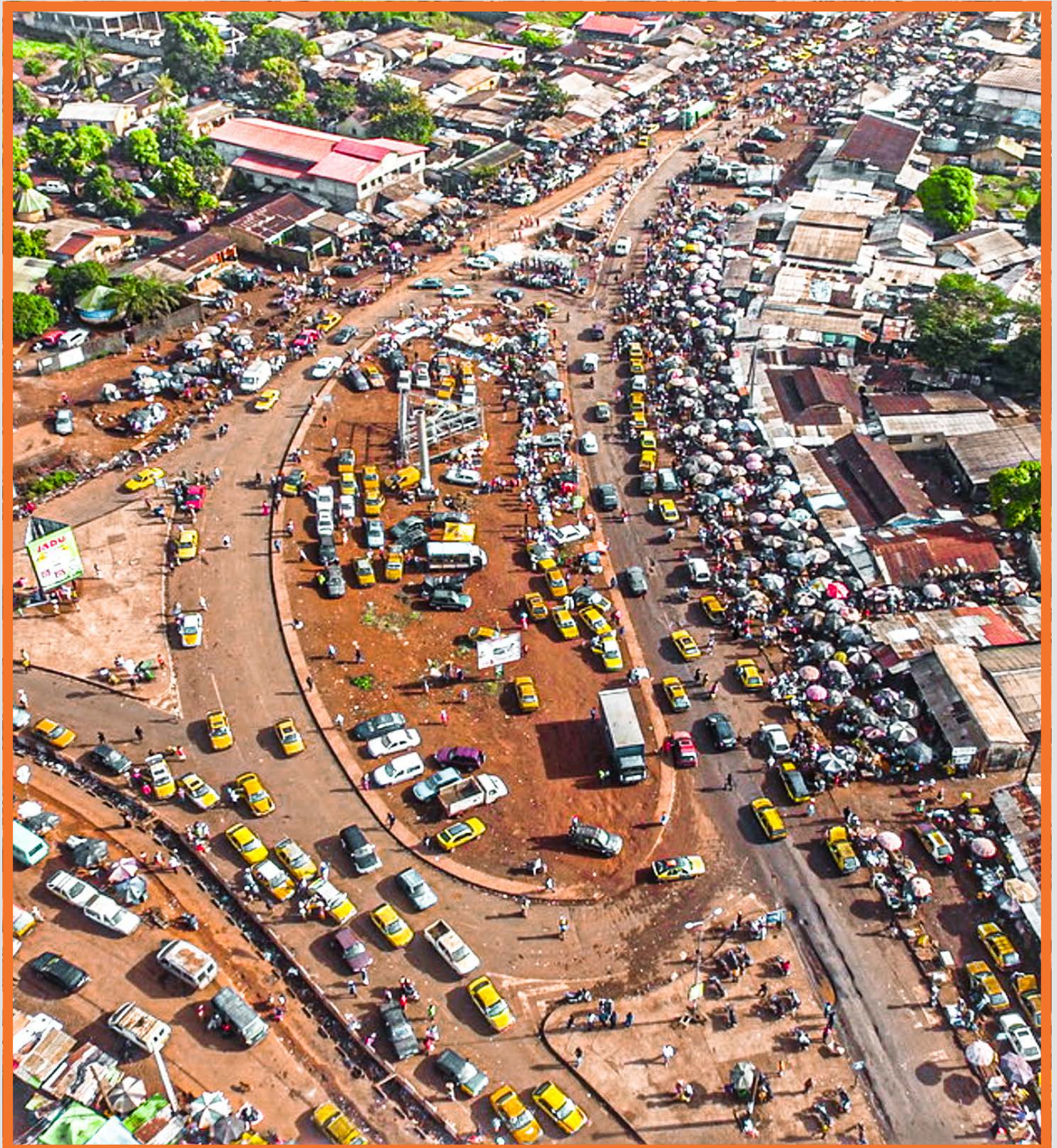
From an environmental point of view, the city-nature concept promoted by the landscaping of the site will mitigate the environmental impact of the project. Beyond the objective of CAN 2024 and the development of the Olympic city Ebimpe.

The vision is to make the Ivorian cities of tomorrow: cities where it is good to live with entertainment areas and parks; safe cities where people are safe.





Rethinking Conakry through the lens of sustainable urban mobility



PK36 drone view, Conakry-Guinea

Settled on a narrow peninsula on the Atlantic coast, Conakry – the capital city of Guinea – has one of the most challenging and unique urban forms on the continent.

The most “linear city of Africa” is a bustling urban agglomeration shaped and surrounded by the ocean, the mangroves, and the Kakoulima mountain, leaving no more space for further urban sprawl in the future.

Over the years, Conakry has steadily grown away from its original city center in Kaloum, located at the edge of the peninsula. The spatial growth of the Guinean capital has mainly been informal and is the result of a continuous demographic growth that the port city wasn’t planned for. With 2.7 million people in 2020, Conakry’s population is on the way to doubling by 2040. The city is still “hyper-centralized”, with almost all metropolitan functions concentrated in Kaloum.

While the peninsula city is increasingly congested, two railway lines run through the agglomeration of Conakry, but they are mainly used for logistic functions and mining, despite the opportunity they represent to unlock urban mobility for the Conakrykas.

As the municipal capacity for urban governance and strategic planning operationalization is still very limited, many synergies between transport and land use are invisible to the eyes of local decision-makers.

Beyond the classic approach of transport infrastructure planning, the article introduces how a holistic and people-centered approach to urban mobility can trigger an agile and inclusive urban development model for an African city mainly shaped by informality.



Madina Market Area 01, Conakry-Guinea

“ Conakry, the linear city of Africa in search of mobility ”

Conakry's urban population has been growing at an annual rate of 6% since 1958, at the independence of Guinea, to reach a bit less than 3 million people in 2020 and a density of 16,000 inhabitants/km². A very young urban population – half of it is less than 20 years old – is rapidly facing demographic pressure with limited built densification.

Urbanization hasn't been coupled with economic growth or with coordinated urban policies able to address appropriate responses to demographic growth. Kaloum is still the main economic and political center of the agglomeration.

The map of Conakry speaks for itself: “a linear and hyper-centralized peninsula city”, with at its edge Kaloum as a port and city center, distant from the agglomeration. While the city center is shaped by a dense orthogonal grid, the rest of the agglomeration is mainly the result of informal urbanization, contained between radial roads and “corniches” (rather than urban avenues), built waterfronts,

river streams and two converging railway lines dedicated to freight transport have formed the mental map of Conakry's commuters that move to and from Kaloum and Madina market every day.

The density of the streets of Conakry is, therefore, one of the lowest in Africa.

Strategically located along the Fidel Castro highway, the bustling market of Madina has spread its footprint over the years further away from its initial space.

In the streets surrounding the market, we can observe a high intensity of human activity flourishing, which looks like an open-air laboratory for urban mobility... and congestion.

Urban logistics highly depends on truck transportation coming out of the port located in Kaloum, where urban streets and roads are struggling with congestion and road safety that asphyxiate the city center.

The complexity of “urban immobility” and congestion in Conakry resides in the lack of intermodality and transport governance. At the same time, many opportunities for both passengers and freight are unexplored regarding railways and waterways.



Conakry-Guinea, Google earth 2022

Several major trends define Conakry's current congestion and unsustainable mobility:

- Despite several attempts, Conakry struggles to decentralize et relocate its political, economic, and industrial functions out of Kaloum and Madina, leaving the rest of the agglomeration at distance from opportunities;
 - Representing 80% of daily movements, pedestrians face a dramatic lack of walkability;
 - The density of roads and paved streets is dramatically low and leads all the traffic flows to the main trunk roads. Primary roads and intersections are also the main space for market activities;
 - Informal public transport is inefficient and becomes a source of congestion and unsafety itself as magbanas, taxis and moto-taxis have no dedicated stops;
 - An efficient and sustainable public transport system has little financial viability in the current context. Bus lines with no dedicated lanes cannot be attractive and most Conakrykas will prefer to rely on taxis and magbanas with more flexible routes and schedules.
- The situation led several times to the bankruptcy of the public transport company (SOTRAGUI);
 - Two-wheelers become increasingly present on the roads of Conakry, with a share of 30 to 50% observed on the main arteries of the city;
 - The railway infrastructure running through the city is underused for both passengers traffic and freight traffic;
 - Despite the opportunity of the railway, most of the freight traffic coming out of the port is relying on trucks driving and parking in streets that cannot absorb such size vehicles, leading to pedestrian safety issues and critical urban liveability problems;
 - The urban agglomeration is growing away from economic opportunities, leading to high risks of impoverishment, although some opportunities for decentralization of the harbor and the market in Kagbelen exist.



Conakry-Guinea, PDU Conakry Upper blue

“ Rebuild a polycentric, multipolar and multimodal peninsula: Decentralize, unlock, reconnect and diversify Conakry’s urban space ”

From 2017 to 2019, the “Urban Transport Plan” of Conakry has been elaborated to respond to these urgent mobility issues and was eventually designed as a holistic ‘sustainable urban mobility plan’, targeting priorities according to feasibility with timeframes (2020 to 2040) and with a multi-scale approach of short and long-term interventions (metropolitan area, district, neighborhood, street). The plan was later reformatted into 5-year investment plans that identify financial and practical synergies between projects.

The plan proposes a vision of sustainable urban development based on a polycentric and decentralized linear city rebuilt along a multimodal network of public transport, mainly relying on existing railways and roads where urban populations and economic activities are already in place.

By associating Conakry’s urgent needs for action and strategic anticipation of long-term development challenges, the project adopts a bottom-up, people-centered approach with a metropolitan master plan linking mass transit, urban logistics, walkability, and transit-oriented development.

1) Incrementally build a multimodal transport network, starting with an enhanced urban train service on the existing railway and a first Bus Rapid Transit (BRT) line: The first phase aims to restore the CBK line and build parallel railway tracks from Kaloum to Simbaya; Starting with dedicated bus lanes in the historic center of Kaloum, the first BRT line connects with Cosa railway station via the Route Le Prince; The multimodal network starts with

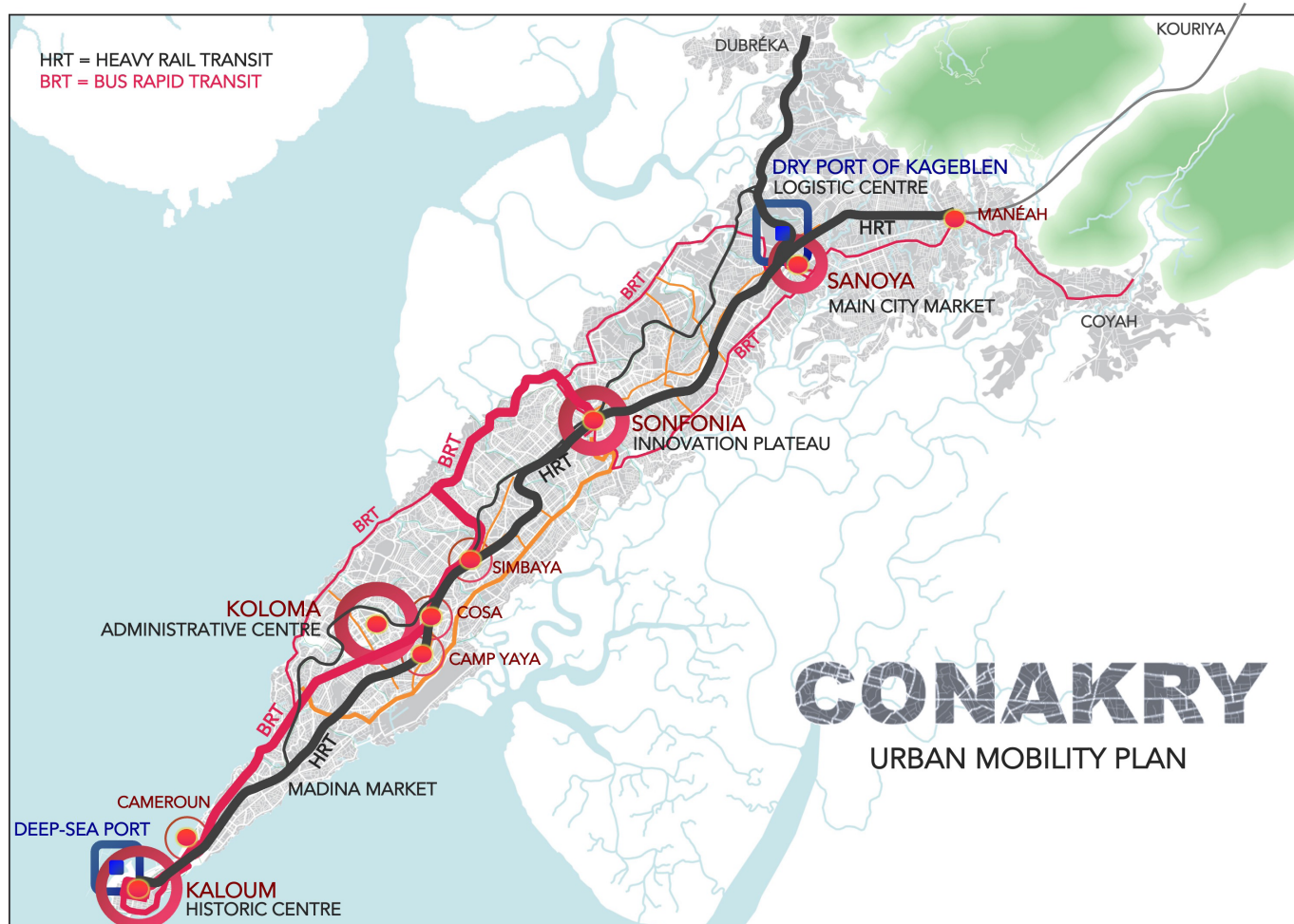
726,000 inhabitants at less than 10 minutes walking from a station.

2) Deconcentrate government functions, housing programs, retail, and logistics into four mixed-used and walkable subcenters: Kaloum as a pedestrian-friendly, cultural and historic center making space for housing development and green waterfronts; Koloma as a mixed-used administrative center and business district connected with the BRT; Sonfonia Plateau as a major public transport hub and campus for entrepreneurship, education, commerce, and housing; Kagbelen as a national logistic hub, dry port and new main market of the city, at the interface between Conakry and the rest of Guinea.

3) Rehabilitate and connect unachieved networks of urban streets and secondary arteries across the agglomeration: Every existing street of Conakry was listed and hierarchized to define how design guidelines can be applied to each street category; Non-motorized transport (NMT) corridors and continuous greenways for pedestrians are planned across the city in synergy with other transport projects and waterfront rehabilitation.

4) Shift the freight transport to the railway and replan urban logistics for better road safety: With the multiplication of rail tracks on the CBK line, the railway trunk combines freight traffic, urban logistics, and public transport on one axis, leading to the development of multiple logistic hubs and new markets; Kagbelen’s dry port and major logistic hub supports the deconcentration of the deep-sea port activities and releases Kaloum and Madina from increasing traffic congestion, especially from the trucks; With the development of a larger market close to Kagbelen, Madina’s market can focus on its requalification and modernization. Accessibility to goods and commercial activities becomes more balanced across the city.





With a planned capacity of 235,600 passengers per day and per direction, the multimodal mass transit network can bring the share of public transport from 17 to 41% for motorized transport and spare one million tons of CO₂ to the annual carbon footprint of Conakry by 2030.

Beyond the scope of the infrastructure, the main purpose of the project is to restore the city as a catalyst for synergies between people and space, passengers and freight transport, healthy urban logistics and street markets, transport and walkability, urban economy, and liveability.

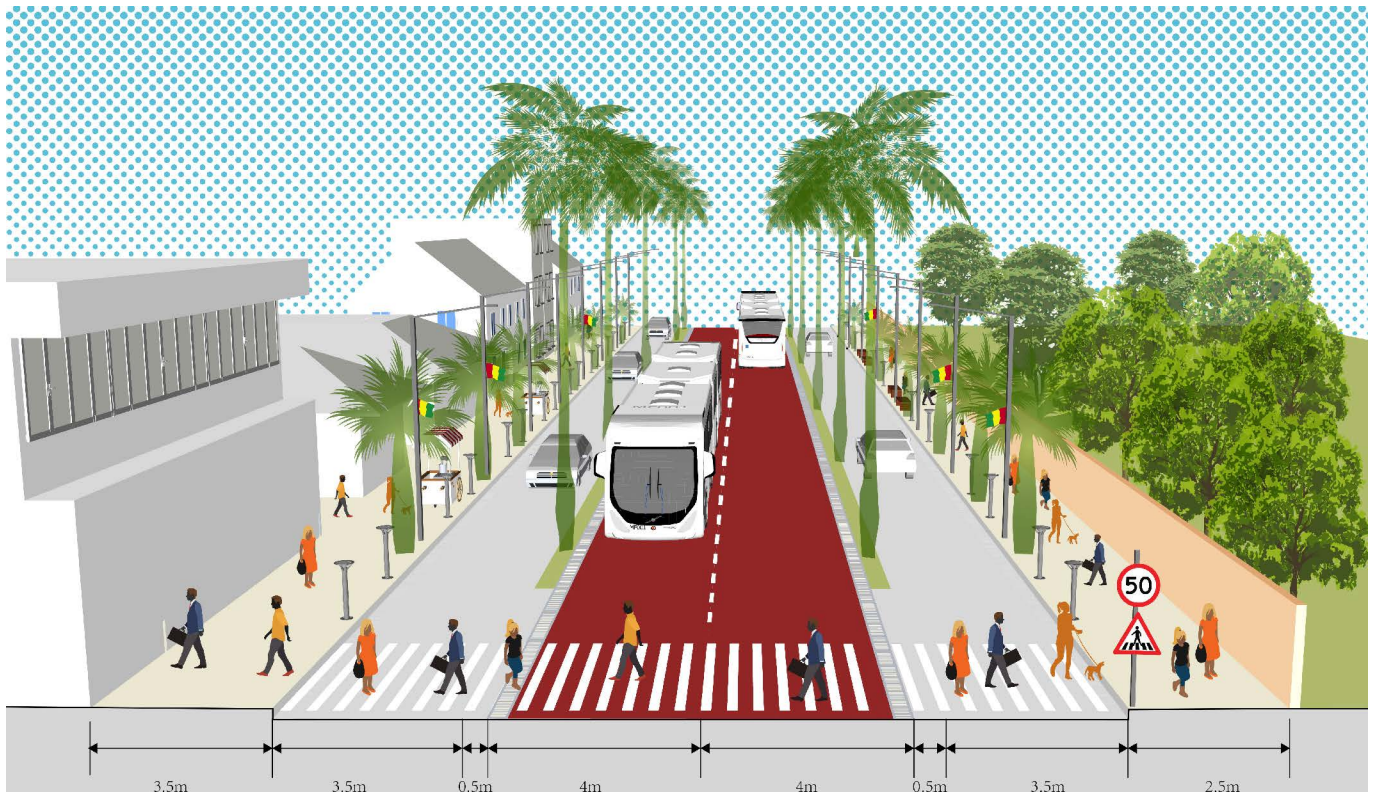
From grey to green infrastructure, planning such a multimodal network is only the starting point of a shift in urban liveability and economic prosperity if targeted actions are taken at the street level and within communities. That is why the planning study was accompanied by a pilot street project in Kaloum, where simple actions with public participation create a new environment, such as protecting sidewalks from car parking, converting it into a one-way street, planting trees, and using parking pricing to reinvest the money in public spaces.

Multimodal transit stations are to be designed as catalysts for human-scale public spaces, traffic calming interventions, and improved environments for markets and open-air commercial activities.

The plan highlights the importance of associating every investment related to transport (and grey infrastructure) with a share dedicated to green spaces, nature-based solutions, and inclusive pedestrian spaces.

For example, the Sandervalia area in Kaloum is redesigned by integrating a pilot dedicated bus lane with a green Rambla leading to the southern waterfront of the city center.

Equitable transit-oriented development (eTOD) around railway and BRT stations requires a socially-inclusive approach with planning and design guidelines that includes a share of affordable housing, sufficient space for covered and open-air markets, and enough green space to avoid urban heat island effects that typically affect urban density.



The neighborhood of Cosa is at the junction between a railway and a BRT station, the market of Cosa, and empty lands surrounding the railway infrastructure.

The coordinated investment allows synergies for intermediate public spaces, pedestrian linkages, and taxi stations for a fair complementarity with existing transporters such as magbanas, taxis, and moto-taxis.

While the railway and the BRT improve long-distance commuting, local transporters have a new opportunity to focus on secondary streets and neighborhoods that require better connectivity with the main network.

The example of Cosa illustrates how essential it is to plan and design in anticipation to create the ideal conditions for an ecosystem of sustainable urban mobility to flourish in an African city.

This approach of multi-scale urban governance is precisely the role of an urban transport authority and an urban planning agency working together on a common vision.

“ Integrate urban mobility as a healthy linkage between people and space ”

Unlocking Conakry’s future seems to be more related to synergies between the city’s stakeholders than to technical solutions and sectoral projects alone.

Solving land use and traffic congestion issues raises the question of what kind of urban liveability and lifestyle the capital of Guinea fundamentally wants to promote and develop.

If public transport investment is an opportunity to bring back truly walkable and multimodal public spaces, then it’s worth breaking the silos of sectoral projects.

The railway rehabilitation is a unique opportunity to build the first pedestrian highway in Africa with a 40 km length and connect open-air markets with each other in healthy conditions. Shifting freight traffic from road to rail brings thousands of trucks away from the streets of Conakry and makes mass transit infrastructure more realistic to invest in, streets and roads safer for everyone.

Improving mobility conditions does not only give room to people but also nature-based solutions, green spaces reducing urban heat islands, and resilient urban spaces to immediate climate events.



Conakry-Guinea, Google earth 2022

Faire la ville ensemble: co-constructing the African city through learning

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African city market streets - Lagos, Nigeria, Getty Images Signature

We live in a world of rupture, where everything changes, everything accelerates, everything becomes more complex, and everything becomes fragile and uncertain. The planet is urbanizing at an unprecedented rate.

Already, more than half of the world's population lives in cities; this proportion will rise to 70% by 2050.

However, although this trend is global, it is not unified: 90% of the world's urban growth is taking place in Asia and Africa, with characteristics that vary from one country to another in terms of speed, scale, the structure of the urban fabric and territorial coverage; urban growth is taking place in megacities, but 75% of this growth is taking place and will continue to take place in intermediate cities of less than one million inhabitants.

African governments, both national and local, are faced with immense challenges in improving the living conditions of their inhabitants and meeting the needs of the new city dwellers.

The scope, strength and speed of these changes require us to act quickly, to reinvent our ways of thinking and to live in the world, and above all, to put the inhabitants and users back at the heart of the construction of cities and territories.





“ Participatory urban planning is a planning paradigm that calls for cooperative arrangements in which the inhabitants and actors of the city are involved in the process of planning, design, and management. It promotes open dialogue and fruitful collaboration between the stakeholders: inhabitants, users, experts, decision-makers and investors, allowing the strengthening of social cohesion and better management of resources with ever greater commitment from communities, local institutions, and local actors. However, participatory urban planning is not intuitive. It requires both a strong commitment from project owners and, therefore, local elected officials and the involvement of a wide range of actors ready to get involved. It requires a significant investment of time and resources, a structured methodology, and focused efforts to ensure success. Who says participatory urbanism says participation. New skills are to be acquired to mobilize and federate local actors, collaborate and co-construct. ”

Insaf Ben Othmane Hamrouni, Founder and Executive Director, Ecumene Spaces For Dignity

This city construction, in Africa as in the world, can no longer be done without the inhabitants, users, economic actors, associations, experts, and operational. This is at all project stages (from its design to implementation).

This paradigm shift in the way of thinking about town planning and this reconfiguration of roles imply new «ways of doing»: «doing with» and, above all «, doing together». The African continent benefits from a certain number of assets, such as:

- The power of African innovation combining both the *jugaad* spirit (doing better or as well while mobilizing fewer resources) and leapfrogging (ability to make a qualitative boom);
- A culture of the collective and informal making of the city (a culture of community learning);
- The emergence of commons in urban areas, which take the form of «places, public or private, shared by residents who develop plural uses thereby involving a multitude of different actors in open governance and by mobilizing varied resources of the territory, material and immaterial, for uses aimed at different circles of users” (Françoise et al., 2022).





These urban commons are embodied more concretely through developing third cultural places, sports fields, shared gardens, Fab labs, market spaces, and learning communities.

In Africa, initiatives of Participatory urbanism have emerged within the process of the urban fabric and take multiple forms, such as tactical urbanism, ephemeral urbanism, temporary urbanism, transitional urbanism, etc.

A real vehicle for transforming territories through co-construction, sharing, participation, and innovation, participatory urbanism offers many opportunities to build more inclusive, resilient and sustainable territories that meet the needs of their inhabitants.

For Luc Gnacadja, urban management and governance must rise to the height of the challenges. The first required factor is the leadership and managerial quality of key players in public governance.



“ We are not equipped to get out of our mental schemes and invent new ways of doing things; we must collectively learn to free our imaginations and free ourselves from our prejudices, think systemically, and connect rather than separate. It is not a question of eclipsing technical know-how but of strengthening the capacity to identify, mobilize, and synergize initiatives in the field to activate collaborations that highlight collective intelligence and share knowledge, creativity and the co-construction of knowledge and solutions specific to each territory. And this is something that must be learned, lived, and experienced rather than decreed. ”

Stéphanie Wattlelos Rutily, Urbaniste, chargée de projets pédagogiques, Campus AFD

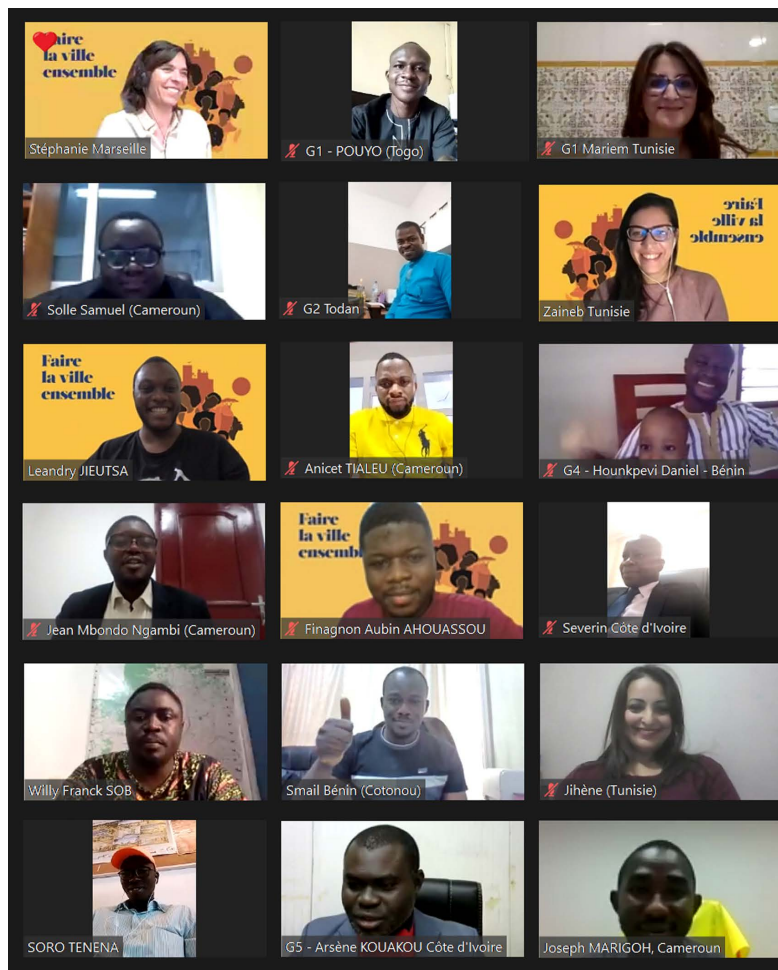
The sustainable African city must be more inclusive of unleashing everyone's creativity to construct sustainable solutions.

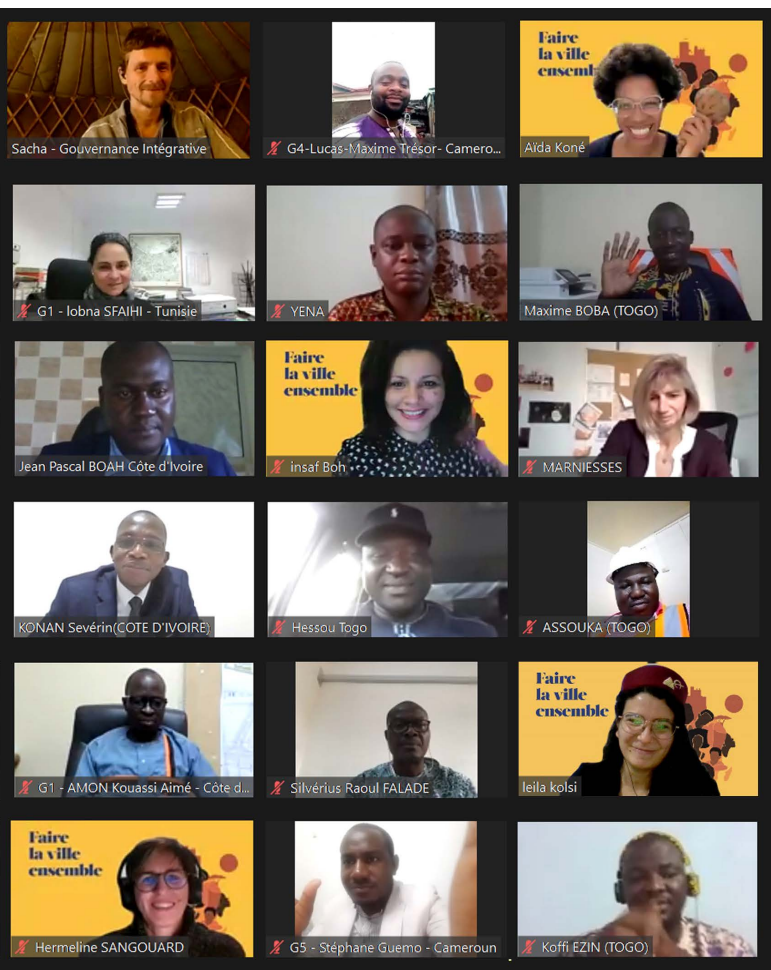
To meet the city's challenge for all and support city stakeholders in raising awareness of the necessary paradigm shifts, the AFD Campus, Oecumene Spaces For Dignity and Africa Innovation Network have co-constructed with and for these stakeholders,

“Faire La Ville Ensemble” (Doing the City Together) a new immersive and collaborative learning path.

Its objectives: to understand the complex dynamics at work in urban territories; identify the notions of participation and co-define together the key concepts for open and shared participation in Africa; sensitize and initiate the actors of the city in Africa to the approaches and tools to co-construct urban projects by relying on collective intelligence and creativity.

This training course aims at transforming postures and accompanying change to move from a traditional project manager to a project manager who is a facilitator within his territory.





“ What I remember from my journey on “Making the city together” are these intense moments that punctuate the different phases of implementation of participation as an essential tool for the fabric of the city. This complex, instructive exercise allowed us, as participants, to face the challenges of our cities, particularly in Africa, where anarchy, precariousness and the absence of strategic planning constitute the central feature that characterizes them. But as we learned about these methods of participation, we realized that it is possible to dream of inclusive and sustainable African cities that are built differently, with new approaches that involve the different actors in creating a shared vision of their city. This allows the other stakeholders to plan together and work toward a common goal. These methods benefit the Urban Planning Agency of Greater Tunis, which operates mainly to assist local authorities in developing their urban planning tools, which constitute an opportunity to put the approach into practice. ”

Jihene Ghiloufi Dahmeni, Engineer, director of urban information management, Tunisia



Recording of the video resources of the 2022 course

The digital pedagogical structure "Faire la Ville Ensemble", co-constructed with local actors, will alternate e-learning and collaborative times in a digital workshop, based on innovative pedagogical principles, namely:

- Designed as a digital commons, the Faire la Ville Ensemble platform offers dynamic and interactive educational content (field experiences, videos, infographics, toolboxes, quizzes,...) to be discovered at one's own pace and in autonomy;
- And to explore, invent, put oneself in the place of... and learn through play, collective intelligence and

creativity, the postures, methodologies and tools of participation, collaborative digital workshops punctuate the entire course for those who have more time.

More than a simple training course, Faire la Ville Ensemble is a real learning experience that relies on innovation, collective intelligence, and the power of sharing experiences.

Above all, it is a community of committed city actors who desire to put people back at the heart of city building.

Register at <https://www.fairelaville-ensemble.fr>

Register Here



Faire la ville ensemble

Partager, collaborer et innover
Pour des villes durables
et inclusives





Adapting to Climate Change with Smartphones, Art, and Community Engagement



In a well-equipped studio classroom in Korogocho, Kenya, young urban filmmakers refine their scripts on laptops and map out stories by attaching bright-colored post-its to whiteboards.

Nearly a thousand kilometers away, on the Somali coast, displaced residents of Marka gather beneath a tree near their makeshift shelters. They have come together to learn about a new SMS early warning system that alerts residents about seasonal flooding in the Lower Shabelle region.

Across the Indian Ocean, in another flood-prone region, teams of Bangladeshi youths work their way through the neighborhoods of Mongla and Kuakata Port using apps on their mobile phones to create digital maps of these vulnerable communities.

Around the world, climate change is hitting hardest those who can least afford it hardest, often the poorest residents of informal urban settlements. But people are finding ways to defy some of the negative consequences of climate change through innovative projects that harness digital technology to help communities prepare for, respond to, mitigate, and adapt.

"Whenever we receive alert messages, we inform people in the community to wake up and be prepared to help stop the flow of water from the river. We dash towards the river," said Mohamed Aweys Mohamed, a community leader from Marka, Somalia

These projects are being implemented by local organizations in Kenya, Somalia, and Bangladesh with grants through a Cities Alliance initiative called Stronger Partnerships: Local Innovations for New Climate Realities in Cities.

The initiative has been carried out in partnership with the Swedish Development Cooperation Agency (Sida) and the German Federal Ministry of Economic Cooperation and Development (BMZ).

As climate-related events intensify, new methods and technologies will be important to help communities manage and reduce the risk of disaster. And by working together, people can help their communities stay safer and adapt to climate change impacts in the present while preparing for climate shocks in the future.



Kenya, HopeRaisers

"It has been said that unity is strength. It is very important for people to support each other. Unity is good," said Mohamed Aweys Mohamed, a community leader from Marka, Somalia

Below are stories from the field about the impact of three projects supported by the Cities Alliance in the area of technology and climate change.

“ Kenya: The art of adaptation ”

Korogocho, an informal settlement of nearly 200,000 people located near Nairobi, is especially vulnerable to climate-related hazards such as flooding, outbreaks of diseases, and shortages of food and water.

Through the Future Yetu digital storytelling project, the Kenyan Hope Raisers initiative is channeling the creative talents of young local filmmakers, musicians, and other artists. So far about 20 residents have acquired skills in basic writing, plot development, and video production. They are using these new skills to share their personal stories and raise awareness within their community about environmental issues and climate change adaptation.

One recent video captured the creation of the Carbon Sink Pocket Park, a pocket park created beside a primary school in Nairobi, and includes a performance by Nairobi spoken-word artist Gchopevu, who sang in a mix of English and Swahili about climate change.

The park was built as an outcome of community discussions about the links between climate change, air pollution, and health and so that residents including children could access a green space nearby.

Another positive outcome was the creation of the Korogocho Climate Change Adaptation Manifesto, capturing community priorities and interests in climate change and which was hand-delivered to Nairobi City County.

With support from funds provided by Cities Alliance, the Hope Raisers are scoring clear successes, like building the technological literacy of communities and using digital storytelling and art exhibitions to raise awareness about environmental issues of shared concern.

Particularly noteworthy is the way such activities have been able to identify novel ways of engaging with groups that have been traditionally considered “hard to reach”, like young people, older people, women, poor people, people with disabilities, and culturally and linguistically diverse communities.

"We have different ways to adapt to climate change and when [community members] are giving their personal stories, you can hear how each and every person, each and every group, is adapting," said Elizabeth Wambui, a member of Hope Raisers in Kenya.



Kenya, HopeRaisers

“ Somalia: Inclusive community-based disaster risk management ”

In the city of Marka, Somalia, a project implemented by the local NGO Action for Women and Children Concern (AWCC), has been working to stall the local impacts of climate change.

The need for such projects in Marka is acute. Extreme weather events are increasing throughout the Lower Shabelle region, leading to a volatile and destabilizing mix of heavy rains, flooding, and droughts.

More and more residents are being displaced from their homes by long-term shifts in the climate. In spite of these changes surveys conducted to help shape the project revealed an initial lack of awareness of climate change as a contributor to recurrent local natural crises.

AWCC is confronting these changes in several ways, including through local outreach. AWCC has organized meetings with residents, including women and girls, where they raised awareness about climate change and formed Community-Based Disaster Reduction Management (CBDRM) Committees.

They also demonstrated cost-effective ways for residents to increase the resilience of their communities.

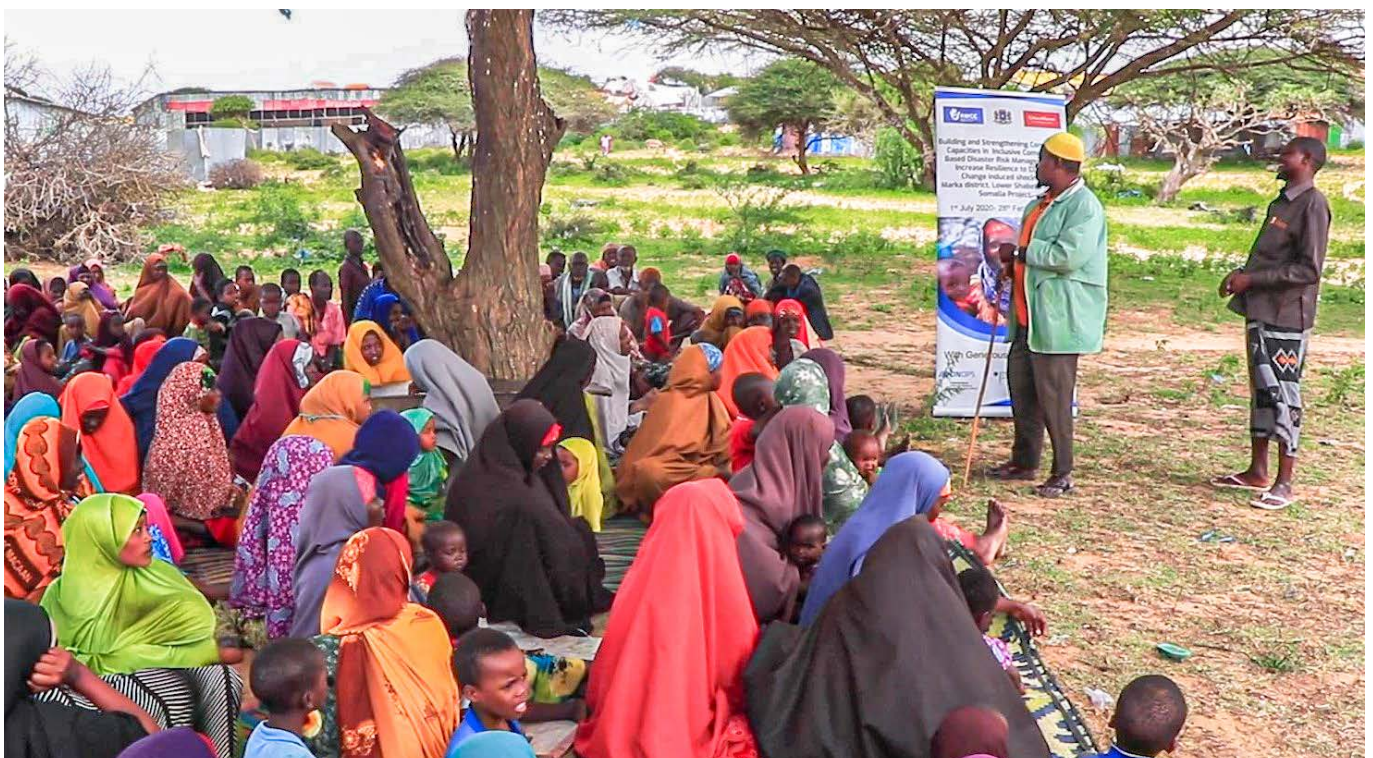
The involvement of women and girls in the project has been an opportunity to include conversations about gender-based violence (GBV) and child early forced marriages (CEFM), particularly in contexts of climate change-induced shocks

A key feature of the project has been the launch of an SMS early warning system. The project engaged two mobile service provider firms and held five training sessions for 150 community members, as well as local authorities and community elders from Marka district. Through these training sessions, the indirect reach of the project was about 56,000 people.

The project has yielded a number of benefits including introducing community-owned systems of managing and mitigating the effects of climate-induced shocks. Such results need to be sustained and AWCC along with stakeholders is continuing to explore ways to build upon recent project outcomes. Part of AWCC's sustainability plan is ensuring the community has an inclusive action plan that is applicable and cost-effective.

In doing so they are encouraged by feedback from community members.

“The training we were given has given us a lot of hope and inspiration. I have gained a lot of knowledge which I didn't have before,” said Mumino Abdikadir Mohamed, a resident displaced from Marka.



The results of the project have been impressive. Over 72 meetings brought 1,150 women-headed and indigenous households in informal settlements together where they gained awareness of climate change risks and the importance of climate resilience planning. With the meaningful participation of residents, climate resilience plans were prepared by 26 elected bodies and 32 government officials.

The impact of the project continues. About 50 youth volunteers and 12 women leaders remain actively involved in climate resilience planning. Ten maps and gender-sensitive resilience plans of informal settlements were created and four were printed and placed on billboards.

Through engagement in climate change resilience, the project team, community members, local authorities, elected officials, and other stakeholders have built relationships that will be helpful for future city planning, as well as in other areas.

Newly elected bodies of both cities better understand how they can support the implementation of the climate resilience plan in the future and have become especially aware of the needs of urban poor and vulnerable communities.

The participation of private companies, particularly tourist agencies and hotel owners, is anticipated as part of the development process for future city resilience planning. The billboards and maps are seen as key tools for public awareness of the climate change resilience plan. Youth volunteers can further facilitate the awareness process, which they have already begun to do. In addition, these maps will be considered in the next budget and future plan.

"Through this project economic, social, and disaster-related issues will be solved, and the Mongla Municipality will be benefitted," said Md. Ahsan, a youth volunteer from Badabon Sangho.



Kenya, AWCC



Somalia, AWCC

Urban-Rural linkages at the center of urban policy agenda in Africa



Dschang-Cameroon, Leandry JIEUTSA 2022

Traditional approaches to planning and development viewed urban and rural areas as two separate entities creating a dichotomy between the two. In reality, the boundary between urban and rural areas is diffused, and the two are intertwined and connected in a functioning system of linkages that sustains the interactions between them.

While urban growth might bring prosperity to many urban regions, the urban dividend is often not shared across the territory. In some countries, small and intermediary cities, which are a crucial link for integrated territorial development, find it difficult to define their roles in the contemporary economy; hence adversely suffering from uncontrolled growth, poverty, lower incomes, high youth unemployment rates, inward migration from rural areas and outmigration of mainly young and skilled.

To address these urban-rural linkages challenges in the African context, UN-Habitat and partners implemented, the project “Leaving no space behind: strengthening urban-rural Linkages (URL) in Africa” in four countries: Cameroon, Guinea, Nigeria (Niger State), and Tanzania (Zanzibar)

Funded by the United Nations Development Account this project supported the four countries to enhance

their urban-rural linkages and bridge the urban-rural divide by enhancing the capacities of policymakers and change agents at all levels to collect and use evidence for fostering cross-sectoral, multi-level frameworks, strategies, and action plans for integrated and inclusive territorial development.

Ensuring the entire project cycle was inclusive and participatory, UN-Habitat employed several delivery methods, including the development of context-specific normative toolkits and guides, national and subnational capacity-building sessions, technical dialogues as well as advisory services to a wide array of stakeholders, including government officials, academia, civil society and women and youth groups.

The project implementation involved the creation of awareness along with capacity-building activities on the significance of strengthening URL. Through the awareness-raising activities, the countries were also able to define their priorities or key pressing issues towards functional and inclusive URL at the national and local levels. This was to provide an overall framework for the review of the National Urban Policy (NUP) for each country and in the data collection process at a local level respectively.



Grand Bassam-Ivory Coast, AIN 2022

In Africa, the urban-rural divide is a reality that participating countries must address.

To be specific, rapid urbanization, due to rural-urban migration is placing enormous pressure on urban and peri-urban areas, including intermediary cities. Large cities and metropolitan areas are already experiencing urban sprawl and expanding their border to peri-urban areas, surrounding rural areas, and hinterlands.

When expanding in such an unplanned manner, cities consume valuable (close by) agricultural land (in some cases) which could in turn affect food security and food systems in general. Similarly, fragile ecosystems are being transformed into urban land uses, impacting ecological resources such as waterways, fisheries, and forests.

The 2017 report of the UN Economic Commission on Africa on “Urbanization and Industrialization for Africa’s Transformation” states that Africa’s least urbanized countries are urbanizing fastest due to rural-urban migration, a phenomenon which still remains even as countries recover from the COVID-19 pandemic. However, unlike global trends, the urban-rural disparities in Africa do not seem to narrow with increasing urbanization.

Low connectivity and insufficient infrastructure in rural areas widen these inequalities between urban and rural areas and since economic investment is often low, job opportunities remain few.

The 2017 report of the UN Economic Commission on Africa states that “management of the rural-urban transition in a way that promotes equity is one of the major challenges facing policymakers in most African countries.”

The situation in the project countries is no different, for example in Cameroon, rural-urban migration was defined as the main cause of urban sprawl. The reasons for migration as described above, specifically the search for better opportunities due to urban and rural disparities and inadequate infrastructural development.

In Niger State, Nigeria, the inefficiencies of infrastructure, leading to a declining local economy, is one of the main contributors to poverty among rural populations. Connecting food producers to urban markets and enhancing the flows of goods, products, and information would improve the lives of the rural dwellers, and also promote urban food security.

In Guinea Conakry, the poor connectivity of physical infrastructure, information transfer, and social connectivity cause a major development gap between rural and urban areas.

The case in Zanzibar, Tanzania is no different; the poorest and least developed, low literacy levels and access to health care among other challenges being experienced, in rural areas.

Faced with these challenges, the call to strengthen the synergies between urban and rural communities and spaces is pivotal towards integrated territorial development and achieving global goals. The project thus provided for the countries to define their priorities, gather data, review policy, and make recommendations for policy enhancements.



Obala-Cameroon, Leandry JIEUTSA 2017



Stakeholders consultaion, Cameroon, UN-Habitat 2021

UN-Habitat implemented the project using several delivery methods to ensure an inclusive, effective, and participatory approach.

These include the development of innovative, context-specific normative tools and guides, capacity development sessions as well as technical dialogues and advisory services.

UN-Habitat coordinated activities at the regional level and offered normative tools for adoption in the country's contexts.

The main activities in the field were over ten capacity-building workshops, data collection exercises at different locations, policy reviews, and recommendations for enhancing the policy frameworks in the lens of urban-rural linkages. One unique aspect of the project is that it integrated inputs from technical experts and local communities or stakeholders to inform the policy review and recommendation process.

Approximately 2500 people were engaged during the implementation of this project. The project not only gathered inputs for policies but the stakeholders involved had their capacities strengthened which will be replicated to others and in their daily work on urban-rural linkages.

Data collection was also collected using digital tools such as Kobocollect which made data collection, analysis, and presentation quicker and relatively more accurate.

The digital tool was not only innovative but also minimized the use of paper contributing to environmental conservation. The capacity-building workshops and related activities were also hybrid; both physical and online especially during COVID-19 restrictions allowing for continuity of project activities.

In Cameroon, the project began by bringing together a country team which was composed of over 20 people from different sectors. They defined three priority issues that would be key in addressing urban-rural disparities.

They are: improving road and transportation infrastructure; telecommunications infrastructures; Partnerships and financial services.

Along with the definition of priorities, UN-Habitat worked with stakeholders such as government officials, civil society, and academia, to develop a report on the general challenges and state of urban-rural linkages in Cameroon. Similarly over thirteen policies, laws, and strategies were reviewed on the nature and extent to which they had addressed urban-rural linkages.

The other related activities were data collection and six workshops on awareness, capacity building, and validation of project outcomes.

In Zanzibar, Tanzania, the multi-stakeholder country team defined three priorities for strengthened urban-rural linkages. The priorities were: food security, social services, and infrastructural services.

A URL situational report comprising the challenges and opportunities was developed, with the contribution of all stakeholders. Over 20 policies and strategies were also reviewed guiding the recommendations thereof. Data collection of both secondary and primary sources was conducted in the selected sites, including farms, marketplaces, and from community groups.

To further enhance inclusivity and participation from all the five regions of Zanzibar, up to five workshops in the five regions were conducted to raise awareness on URL, enhance the participant's capacity as well as validate the project outcomes, attended by over 100 diverse participants.

In Niger State, Nigeria, the project was implemented under the umbrella of the Niger State Urban Support Programme, which consisted of urban-rural linkages, state urban policy, and integrated development planning.

The strengthening urban-rural linkages component was then integrated as a chapter in the Niger State urban policy, which was approved by the State Executive Council in June 2021, A multi-stakeholder team formulated to coordinate the project identified priority issues as infrastructure and human security.

Similar to Zanzibar, the Niger State team conducted policy reviews, defined the gaps, and provided fitting recommendations to enhance urban-rural linkages.

A report was also prepared on the status of URL in Niger State with specific examples of ongoing projects and initiatives by other partners and governments on rural electrification, rural road upgrading, and market studies.

Through the project, a total of three workshops were conducted, which included training on data collection and validation workshops various consultative meetings along with the NUP development process.

Guinea Conakry started with a stakeholder's awareness workshop conducted in Conakry bringing together relevant stakeholders together to understand and discuss the relevance of urban-rural linkages.

They also developed the status report on URL in Guinea along with a review of over ten relevant policies.

Data collection was also collected to understand the three priorities identified as infrastructure, environmental issues, and economic activities.



Farmers consultaion, Zanzibar, UN-Habitat 2021

Four workshops were held in Conakry on awareness, capacity building, and validation of project outcomes.

The urban policy process kicked off after the project closed, and a specific section on urban-rural linkages will be integrated with the policy document.

The aim of the project was mainly to build the capacities of the stakeholders in the project countries towards enhancing urban-rural linkages and integrated territorial development through policies, and strategies among other frameworks.

The projects were anchored in the project countries along with the urban policy process apart from Cameroon where the policy was already completed.

The project saw several milestones reached and significant progress made in enhancing urban-rural linkages.

Some of the progress made and results achieved include: Multisectoral country teams (national, and local) responsible for promoting and ensuring the consideration of urban-rural links in policies and strategies were set up and equipped through capacity-building activities and related project activities.

They will thus continue playing a major role in advancing the agenda as ambassadors of urban-rural linkages initiatives in their works.

The capacities of more than 2500 stakeholders in the government, private sector, academia, and civil society have been strengthened on what urban-rural linkages entail and why it is important including how local initiatives contribute to the agenda.

This was not only through the capacity-building activities and data collection process but also through the reports developed that will be disseminated in the relevant languages in each project country

In all four project countries, urban-rural linkages will form part of the national or sub-national (Zanzibar and Niger state) agendas having been integrated into the urban policies.

In Niger state, a chapter dedicated to policy actions for managing urban-rural linkages was adopted.

Urban policies form a key reference document for legislation, planning, and related strategies or projects whose benefits would be incremental at different governance levels.



Consultative meeting with local population, Zanzibar, UN-Habitat 2021

Another impact is that another project commenced as a multiplier effect benefitting Niger state and Cameroon with the main focus on food and transportation between urban and rural areas in the context of pandemics.

This is through the University of Nairobi and partners, showing the emerging interest of academia to advance the topic of urban-rural linkages.

The Project achieved its main objective is to advance the knowledge and capacities of urban-rural linkages in the context of African countries. The approach employed in the implementation of this project involved both experts and local stakeholders to collect evidence for policy enhancement.

To engage these diverse stakeholders, context-specific normative tools were developed, core country teams trained, and the tools implemented. Through the various tools being piloted and adapted accordingly, the country reports were developed and shared with all stakeholders on the status of urban-rural linkages.

The policies were then reviewed through the lenses of the emerging issues in the reports and recommendations developed.

To contextualize and understand the situation further, study sites were identified, and data were collected in a defined functional area.

The data collected provided an in-depth understanding of the nature, challenges, and opportunities of urban-rural linkages in specific contexts.

The main results were a piloted toolkit that can be replicated in other country contexts, urban-rural linkages policy recommendations, and improved capacities of the stakeholders involved on ways of advancing the agenda post-project period.

One of the lessons learned from this project which will be beneficial in future related projects or initiatives is the complex and broad yet context-specific nature of urban-rural linkages.

The policy actions in each country are expected to lead to urban and rural food security, better connectivity and inclusive flows of commodities, people, services, and information, management of urban-rural migration, protection of the environment, and managed urban sprawl among other long-term benefits, for integrated and sustainable territorial development.



Niger state URL data collection, Nigeria, UN-Habitat 2021



URL data collection, Zanzibar, UN-Habitat 2021

How Eleven African Cities are Leveraging Inclusive Digital Technology



All partners week Bizerte, Tunisia, ASToN

Digital technology has been rapidly transforming the way cities function, helping tackle some of society's biggest challenges.

However, technological developments can also create disruptions which, if not carefully considered, can have lasting negative economic, environmental and social consequences.

Many local authorities, especially within Africa, are looking to technology to solve pressing issues and introduce new ways of operating.

Eleven have joined ASToN, a programme funded by the French Development Agency (AFD), managed by the National Agency for Urban Renewal (ANRU).

ASToN aims to support African cities develop their own version of a smart city; harnessing data and technology, and using integrated approaches to improve policies, services and quality of life for citizens.

Cities in the ASToN network work through three phases, utilizing digital tools, and participatory, innovative skill sets and mindsets, to overcome local and global challenges.

The objective is that these cities develop their ability to design and deliver public services that respond to the changing needs and expectations of their citizens. However, digital transformation is complicated, and will vary depending on the digital maturity of both the local authority and the territory.

The sheer diversity of the ASToN network and the challenges local authorities are exploring as part of the programme is a source of strength for harnessing technology's potential to usher in positive change. With suitable institutional capacity and political will, local authorities in Africa will be able to thoughtfully tackle some of their biggest challenges through digital transformation.



Lubumbashi-DRC, Leandry JIEUTSA 2022

“ Digital transformation and cities ”

Digital technology – whether it be smart phones, social media, artificial intelligence or cryptocurrency – has been rapidly transforming the way we work, trade, communicate and consume.

Digital technologies are being used to help tackle some of society’s biggest challenges, such as increasing economic output, improving public services and encouraging citizen participation.

However, technological developments can also create disruptions which, if not carefully considered, can have lasting negative consequences on the environment, on social equity, on economic inclusion, and economic mobility.

Cities are often at the forefront of digital exploration given their concentration of people and capital, and the resulting complications related to traffic, poverty, public safety, pollution, and more. Local authorities around the world are looking to technology to experiment with new ways of solving these challenges, with many cities engaging with the concept of becoming a “smart city.”

“A ‘smart city’ utilizes technology to make the critical infrastructure components and services of a city– which include city administration, education, healthcare, public safety, real estate, transportation, and utilities– more intelligent, interconnected, and efficient.”

Africa is in a unique position to manage this digital shift as it continues becoming younger and more urban.

By 2030, Africa is expected to house 6 of the world’s 41 megacities, as well as a dramatically large proportion of young people, who tend to be more comfortable with digital innovations.

However, the mere existence of digital tools does not guarantee citizen participation.

As a result, authorities across the continent must think strategically about citizen engagement and outreach, ensure that benefits of the digital transformation are distributed evenly, and mitigate instances where economic and social inequalities are created or accentuated.



Addis Ababa-Ethiopia, Leandry JIEUTSA 2022

“ Building the digital ecosystem in african cities ”

ASToN is a network of local authorities using digital tools, and participatory, innovative skill sets and mindsets, to overcome local and global challenges.

ASToN aims to support African cities to develop their own version of a smart city to harness data and technology, and use integrated approaches to improve policies, services and quality of life for citizens.

The programme is funded by the French Development Agency (AFD), managed by the National Agency for Urban Renewal (ANRU), and uses URBACT knowledge and tools.

By creating a community of practice, ASToN hopes to build digital capacity across their partner cities, in a way that’s suitable and sustainable for each local context.

Through this project, ASToN is working with these cities to answer:

- How can a transition to digital technology improve the city for citizens and what should cities be doing about it?
- How might cities collaborate and learn together to make their digital transition more sustainable and faster?
- How can cities ensure an inclusive digital transition process?
- Which digital experiments can cities run for quick wins?



Workshop in Bemgerir, Morocco, ASToN

“ Learnings ”

In 2019, eleven cities were selected from different countries to participate in the project. These cities are Bamako (Mali), Benguerir (Morocco), Bizerte (Tunisia), Kampala (Uganda), Kigali (Rwanda), Kumasi (Ghana), Lagos (Nigeria), Matola-Maputo (Mozambique), Niamey (Niger), Nouakchott (Mauritania), Sèmè-Podji (Benin).

In Phase 1, each city worked through the framework shown below to identify a focus area for their work on this programme. After cities identified their needs and the challenge of focus, ASToN grouped these challenges into 4 themes: mobility, tax collection, land management, and citizen engagement.

ASToN was designed so cities could bring their unique experience as a learning tool for others. Those who have strengths in certain areas are encouraged to share their experiences with peers so ultimately, all ASToN cities can look to digital transformation as a catalyst to achieve their own 'smart city' objectives. While strengths, maturity and experiences vary, a few common challenges emerged for a significant portion of the network.

These challenges include:

- Insufficient digital transformation infrastructure: Most cities identified the need to build up internal digital capability;
- Traditional ways of working: Siloed, hierarchical operations for civil servants can limit innovation and adaptive practices;
- Involving and understanding citizens: Balancing populations that are illiterate, marginalised, have limited access to digital technology due to cost, or are reluctant to change their behaviour;
- The build or buy dilemma: Building new technology has a steep learning curve, especially for underresourced local authorities. On the other hand, off-the-shelf solutions can have high maintenance costs, be difficult to sustain, and offer limited flexibility;
- COVID-19 pandemic: Cities in the network still feel social and economic impacts of the global pandemic;
- Financial constraints: Digital projects often involve high early-stage investment, as well as continued costs, technical maintenance, and service improvements;
- Sustainability: Across the board, the issue of environmental sustainability was de-prioritised against other challenges, and a common idea of sustainability as lasting projects that prioritize local need emerged in its stead;
- Theme choice: Cities struggled to commit to chosen themes with some changing theme at the last moment;
- Solutioning: Defining the problem to tackle within the chosen theme was challenging for the cities. Many wanted to focus on the generating solutions, without a properly defined problem to design for;
- Self-reporting: Cities may overestimate their own capacity, or claim to have unsubstantiated digital solutions.





ASToN All partners meeting in Kigali, Rwanda, ASToN



All partners week Bizerte, Tunisia, ASToN

“ What’s next ”

From their findings in Phase 1, ASToN prioritised the following areas of learning that will support the cities to successfully drive digital transformation.

These areas will be introduced over the course of Phases 2 and 3 of the project to be carried out. This will be done through introduction of several different tools and methodology such as Design Thinking and Agile.

The tools and methods often support a number of these learning areas, and so mutually reinforce one another.

The first 9 months of Phase 2 will focus on gaining a deep understanding of the problem area, co-designing solutions, and building partnerships.

In Phase 2, cities will partner with local experts to design their Local Action Plan to address regulations, strategies, plans, and services linked to their specific topic area.

As the project continues, learning and tools will be available on the network space for cities to return to as they progress at different speeds.

From the end of 2021, cities have been embarking on Phase 3 - Experimentation - in which they will identify and test the riskiest elements of their plans. The addition of this Phase is vital to strengthen the Local Action Plans, as well as giving the cities hands-on experience of learning and adapting and encourage them to embed this throughout their plans.

Completing the experiment checklist, is a prerequisite to this Phase, so that cities can assess their own experimental readiness.

“One must always think big to have a vision, but must start small to deliver and gain local support. The work can continue later.”

ASToN local authorities are looking to develop their ability to design and deliver public services that respond to the changing needs and expectations of their citizens. However, digital transformation is complicated, and will vary depending on the digital maturity of both the local authority and the territory, which varies widely within the network.

The sheer diversity of the ASToN network and the challenges local authorities are exploring as part of the programme is a source of strength for harnessing technology’s potential to usher in positive change. With suitable institutional capacity and political will, local authorities in Africa will be able to thoughtfully tackle some of their biggest challenges through digital transformation.

Some key considerations are:

- Prioritize design and qualitative research over quantitative data. Work to understand digital maturity and ecosystems can quickly become out of date, and often the statistics and numbers don’t fully uncover the more human elements of government work and digital transformation;
- Successful digital transformation is complex and must be human-centered. Digital transformation is complex and nuanced and will vary depending on the digital maturity of both the local authority and the territory, which can vary widely;
- Language matters. Cities in the ASToN network have several official and unofficial languages. Not only did definitions of key terms like ‘smart city’ vary amongst them, but technology can exacerbate digital exclusion if content is only available in formal languages.



Experimentation, ASToN



All partners week Bizerte, Tunisia, ASToN

Portrait

**Aziza CHAOUNI, Principal
architect at Aziza Chaouni
Projects and Associate Professor
at the University of Toronto**



Aziza Chaouni

“ My career wasn’t really planned, I followed my passion and I was lucky enough in my journey to meet people who encouraged me and helped me make the right decisions. I think that from each experience we can learn but sometimes we must avoid putting ourselves in comfortable situations that prevent us from growing ”

Born in Fez, Ms. CHAOUNI continued her studies at the Lycée Paul Valéry in Meknes before heading to the United States, a destination recommended by her uncle.

There, it initially seemed natural to her to choose a scientific field, a decision fueled by her interest in biology and genetics.

The architect spent her first summer in the United States working in a research laboratory, something that fascinated her, but not as much as her interactions and group work. She then decided to focus on the human side and to reorient herself towards architectural studies, while her father had advised her to study structural engineering, a field that helped her in her architectural career and allowed her to master all the technical aspects of construction. Ms. CHAOUNI was the first Moroccan to pursue a Master’s degree in Architecture at Harvard, during which time she also completed a one-year fellowship program, and through which she was able to work with Renzo Piano.

Following her graduation, the architect received an award that allowed her to do a year of research on ecotourism in the Sahara. Her trip included Mali, Libya, Egypt and Jordan, and allowed her to visit many projects, as well as really change her perception, as she was studying in a very different context from where she had been studying (North America).

Once her trip was over, Ms. CHAOUNI received a research proposal from her thesis advisor at her university, following which she was offered an associate professor position at the University of Toronto.

This position had the particularity of requiring a female minority architect at the request of the Chinese-Jamaican architect Brigitte Shim, who had previously held the same position.

As a professor, Ms. CHAOUNI experienced intense years of lecturing, publishing articles, writing books and winning awards. It was also during this period that she decided to open her own architectural firm in Toronto and Morocco as it was part of her goals.

She then began her work on «sustainable architecture» in Morocco in 2010, at a time when this concept was still unknown, and where we wondered why it was expensive. This is how Ms. CHAOUNI turned to rehabilitation projects that she considers the best way to do sustainable construction.

“ we don’t build again, we rehabilitate what already exists. ”



Aziza Chaouni's office in Fes, Morocco, Rajae HAISSOUSS 2022

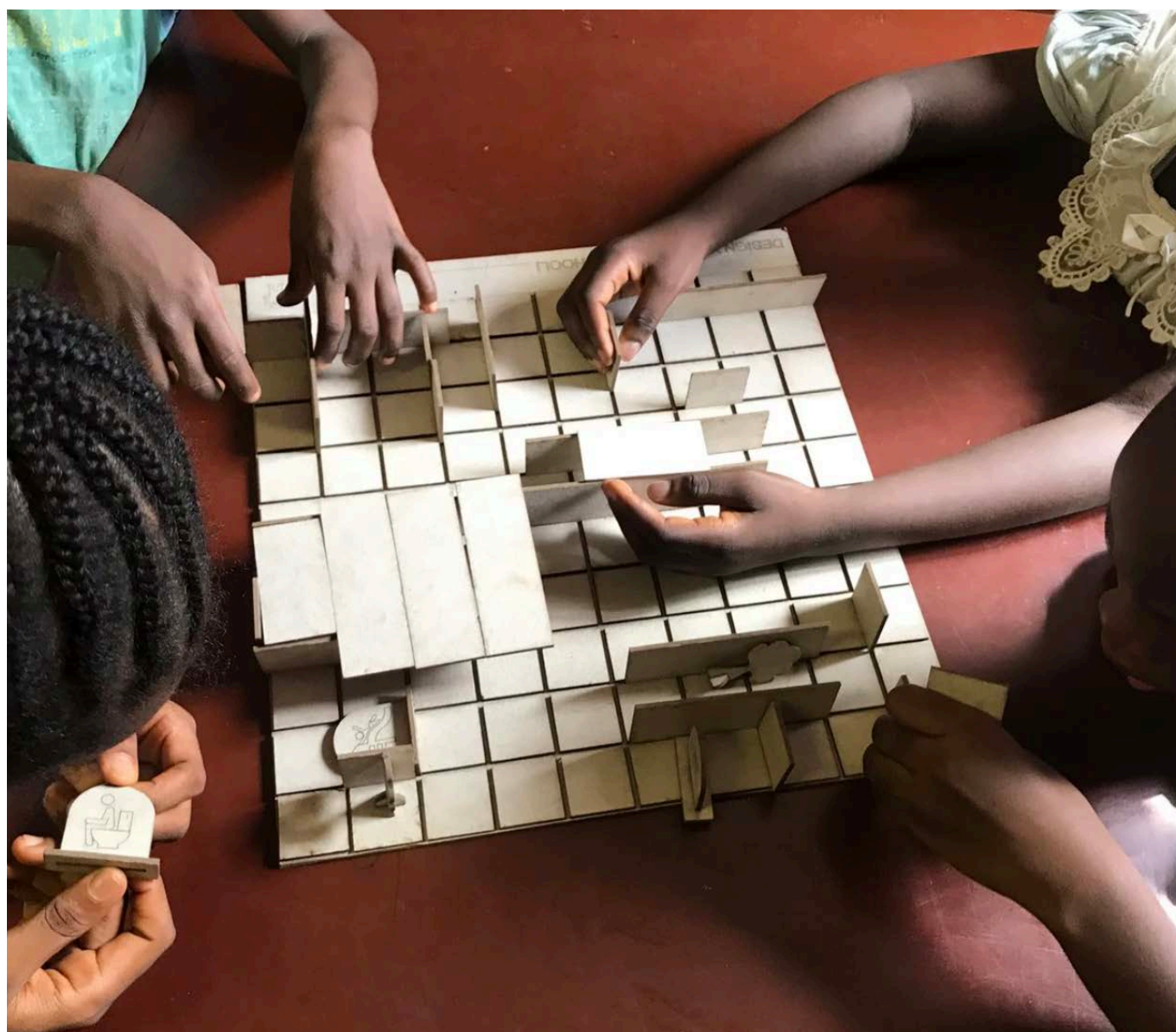
“ I think we need to encourage young women to feel empowered in our profession. I also think it is very important to have examples of women in different forms of practice «to empower, to pass down training and knowledge. ”

Unfortunately, women are not very supportive of each other, whereas we have a real role of empowerment among ourselves.

Mrs. Aziza CHAOUNI considers that the profession of architect remains predominantly male; a woman architect is required to double her efforts in this field, something she herself has felt many times during her career, a pressure she says emanates from the woman because of the existence in patriarchal societies.

“ We believe very strongly in what we do, which is giving voice to the people. I believe that in order to have an engaged practice and complete a project, it is crucial to carry out different missions at the same time. ”

Aziza CHAOUNI's agency operates under a collaborative design model, involving multi-faceted work that encompasses interviewing the population, developing collaborative games and tools, fundraising, or volunteering. «During the pandemic, I realized that it would be better to initiate projects instead of waiting for a client or government commitment»; this is how the MADI Initiative was launched by Aziza CHAOUNI, along with Hamza SLAOUI, specialized in finance, and Meryem MAHFOUD, specialized in communication.



Modelling Game Design Your Dream School , Sierra Leone, Aziza Chaouni Projects 2021

The MADi initiative aims at taking over historical buildings, either private or state-owned, in order to rehabilitate them and host activities with a strong socio-economic and cultural impact.

Initially, the idea of forming the association in order to generate projects emanated from the rehabilitation project of the thermal complex Sidi Harazem, the team of Aziza CHAOUNI had the idea to organize several residences of artists.

One of the first small-scale actions of the initiative was to transform the café of the Slaoui Museum - which is located in the Art Deco district of Casablanca - into a space to raise awareness for the ART DECO heritage, but also to host literary and cultural events.

“ It is an initiative that has allowed us to adopt a proactive model and to get out of the traditional model of waiting for the customer, to convince and to compromise. You have to be flexible, but there are certain things you can't compromise on. It is a very difficult job, but the architect must become a citizen above all, and this requires a certain involvement and self-confidence. It is a constant battle to convince the clients around us that we must think about the long term, that we must not pollute the environment and the water tables, that we must have a water tank to be able to recycle rainwater and reuse it, that we must have a binary plumbing system... But we must also know how to choose our battles, and above all know when to accept defeat.

I'm just looking to do projects that I believe in and that have a positive impact in the lives of the users.»

In general, we often work with the state with a very limited budget, but we try to be as innovative as possible in each project. We also look for our smallest intervention to contribute positively to the environment. ”



El Menzel Agricultural Center, Morocco, Aziza Chaouni Projects 2021

According to Ms. CHAOUNI, the design choice to create quality spaces is motivated by the belief that the architect's role is first and foremost as a citizen. She recalls that architecture is only accessible to 1% of the population, and cites the example of North America, where lawyers must devote certain hours to populations that do not have the means to pay for the services of a lawyer, hence the need to do the same for the field of architecture and that in a citizen approach not only for the greatest number, but also for the fauna and flora.

This approach is illustrated by the project on which Mrs. CHAOUNI is currently working, in collaboration with the Ministry of Water and Forests. It is a project to design panels at the entrance of national parks built in sustainable materials (stone and wood), which double as living space for animal species, insects and birds.

The architect adds that, regarding the sustainable African city in particular, it is important to review all policies related to water management. For her, the issue of water is key for the African continent; it is crucial to integrate binary systems in water management policies, as well as to think about water harvesting systems for reuse in times of drought, and wastewater treatment systems.

“ A sustainable city is a city that offers enough affordable social housing. I think that giving access to housing to a large part of the population is already removing a lot of injustice. I think that it is absolutely necessary to review all our policies in terms of social housing in Morocco and in Africa. I think that the sustainable city of tomorrow is first and foremost a city that is fairer, where everyone has access to a dignified habitat, to quality public spaces where the population is integrated in the development of its own city and its own public spaces. A sustainable city is also a city that is not spread out and that offers enough green spaces where the inhabitants can breathe. Finally, a sustainable city is a fairer city with enough public spaces and infrastructure and accessible and sustainable transportation systems. ”



SUNU CICES, Aziza Chaouni Projects 2021



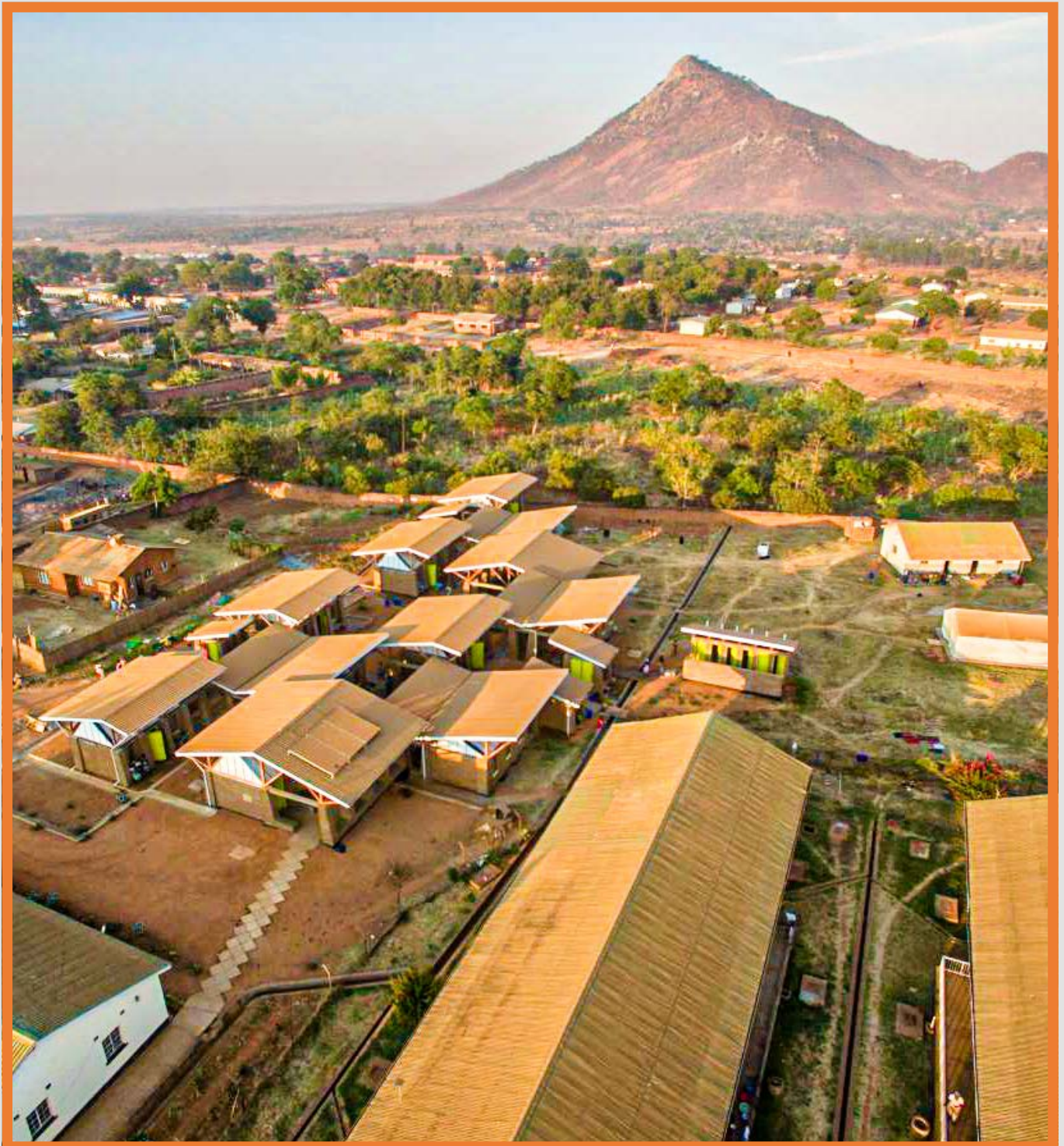
Architecture Innovation





The gardens of Ben M'sik main entrance, Morocco, Alessio Mei Photographie 2022

Kasungu Maternity Waiting Village by MASS Design Group



Aerial view Kasungu Maternity Waiting Village site, MASS Design Group 2016

In many parts of the world, women are still at high risk of dying during pregnancy and childbirth. Malawi is among the countries where the situation is most worrying. In 2010, for example, about one in thirty-six women were at risk of dying during pregnancy and childbirth, mainly due to a lack of professional care. The national population is more than 80% rural and lacks access to health care, especially for pregnant women

who are often forced to travel long distances to give birth. In order to solve this problem, a presidential initiative was born with the objective of building 130 waiting houses for pregnant women throughout the country. These facilities are located near health centers or hospitals and their role is to receive expectant mothers from their thirty-sixth week until their delivery in order to provide them with the necessary care.



Kasungu Maternity Waiting Village, Iwan Baan2016



Kasungu Maternity Waiting Village, Iwan Baan2016

Unfortunately, the prototype that was proposed had many problems with functionality and appropriateness to the context. It was presented as a barrack where 36 mothers would be gathered in a large room.

Thus, the first problems were promiscuity and lack of privacy for the users. In addition, this model also had very limited ventilation and lighting, a lack of space dedicated to people who came to accompany the mothers-to-be, and above all, insufficient sanitary facilities. All these defects made this prototype a "non-solution" to the problem of these mothers-to-be who, for many, chose to return home rather than finish their pregnancy in the institution. In response to this inefficiency of the existing proposal, the University of North Carolina (UNC) project in Malawi supported a hospital in Kasungu. Through a partnership with the Ministry of Health, the initiative committed to building two new shelters for pregnant women.

The architectural firm MASS partnered with local workers to ensure the success of the project.

Through a participatory process, MASS architects involved doctors, nurses, and expectant mothers at the Kasungu facility to propose a new prototype that would best meet the needs of the various users.

This approach allowed them to design the "Maternity Waiting Village". This new model differs in every way from the initial proposal by addressing its shortcomings.

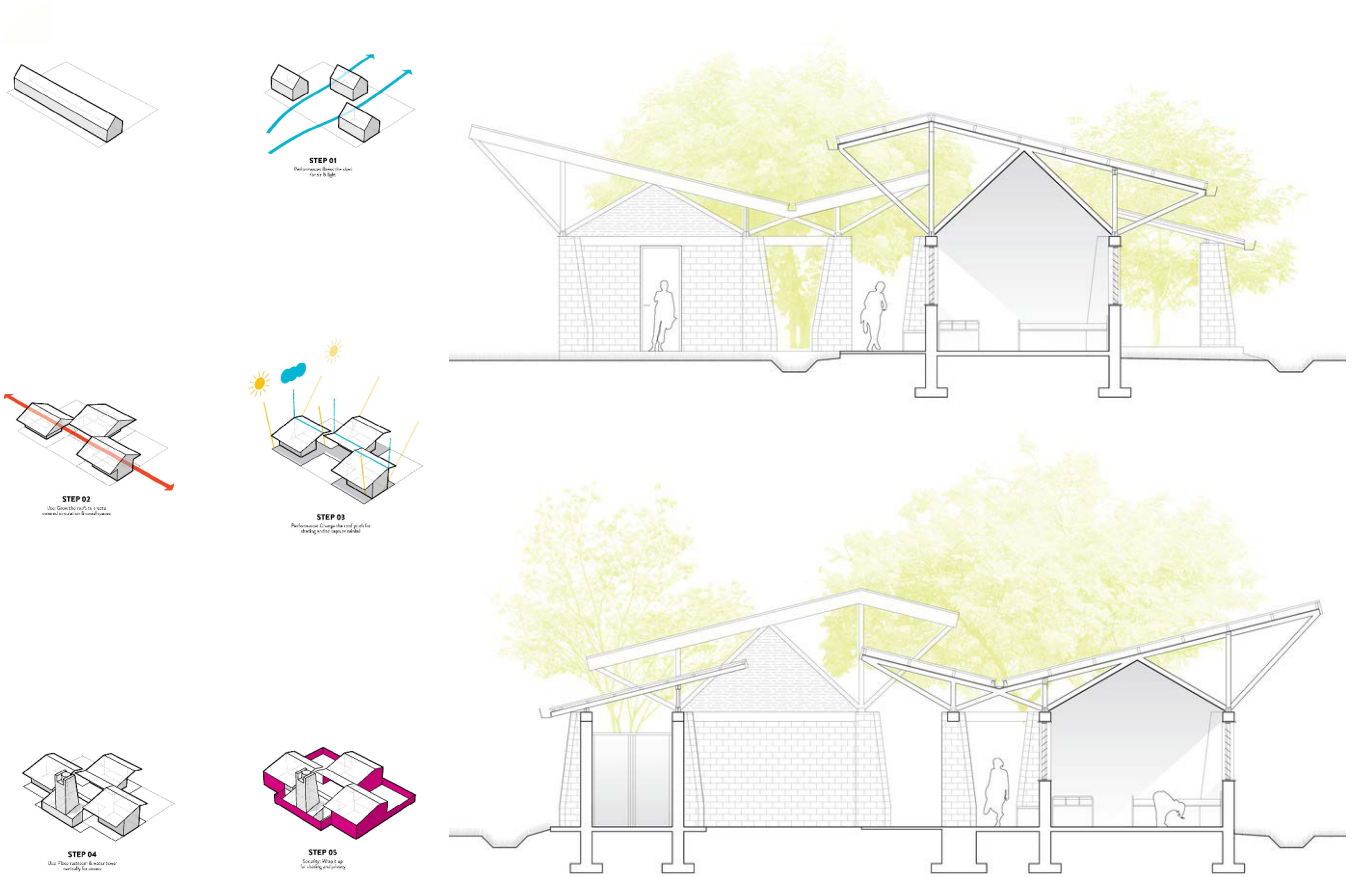
The singular block gives way to a series of small modules grouped around small courtyards.

The architects were inspired by the spatial organization of Malawian villages. The latter is based on family complexes composed of several small houses arranged around a courtyard and housing the members of a close family.

Designed to accommodate four beds each, the small intimate units are grouped in threes around a courtyard. This clever organization helps cultivate a spirit of solidarity and mutual aid. Experienced mothers share their knowledge with first-time mothers.

The other innovation of the MASS plan is its evolutionary aspect. Indeed, once the first three units are installed, other groups are built following the same spatial organization principle as additional construction capital becomes available. Each group of units is served by block housing toilets and showers, an elevated water tank, and a laundry area. In addition, the village has a common kitchen where mothers can prepare food together.





Kasungu Maternity Waiting Village, Iwan Baan 2016

Because of their small size, the units are very well ventilated, have very good lighting, and are therefore more comfortable. In addition, this greatly reduces the risk of spreading infectious diseases.

The units also have built-in benches and storage for accompanying family members and their belongings.

The architects chose compressed stabilized earth blocks (CSEBs) for the walls and columns. The latter define the different spaces and carry exposed wooden frames. This use of locally available resources contributes to the sustainability of the project.

The alternation between the salt box and butterfly roofs brings rhythm to the village while the double roof principle favors ventilation and lighting of the interiors.

The large roof overhangs protect the walls from the rain and create covered circulation spaces and shaded exterior spaces which, together with the different courtyards, welcome daily activities. They are also educational spaces where workshops on prenatal and postnatal care are held, as well as training in handicrafts to help mothers earn an income to cope with financial difficulties.

This innovative project was carried out through a collaborative learning process and developed new cost-effective construction techniques.

By building with compressed stabilized earth blocks, the designers offer a good alternative to the use of fired clay bricks, whose firing process contributes to the deforestation threatening the country.

The large roof overhangs allow protecting the walls in CSEB, less resistant to water than the fired clay bricks.

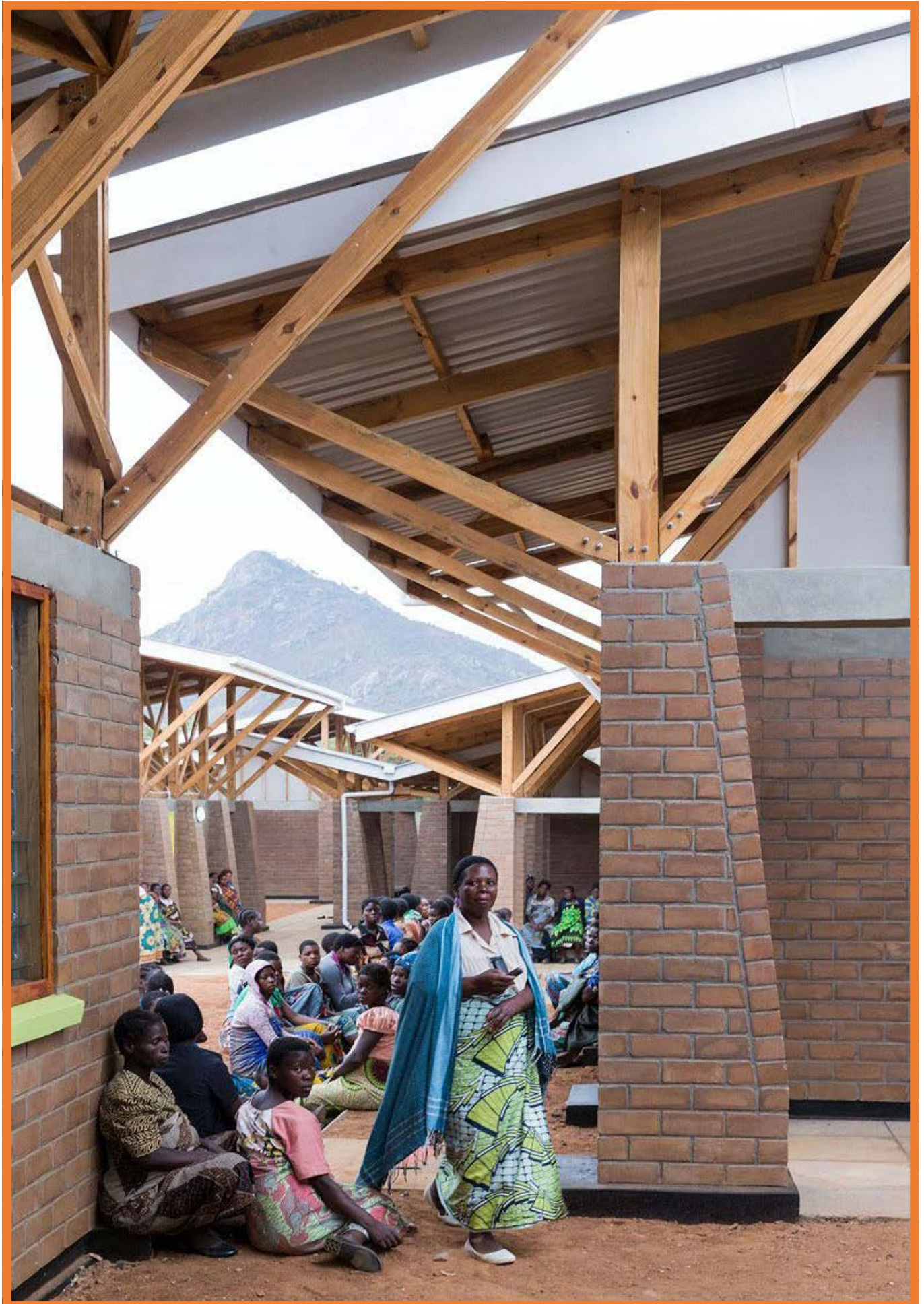
In addition, the MASS team has experimented on-site with masons to obtain a better resistance to water. This will have a lasting impact on the way we build.

The maternity waiting village project brought new skills to the local masons and raised interest in this local and affordable material. The plans conceived by the architects allowed the creation of spaces adapted to local practices, but above all the progressive realization of the project according to the need and the availability of financial means. As for the shapes of the buildings, they are a counterpoint to local construction practices, mainly with their particular roofs and the exposed frameworks that support them.

All these qualities make it an example of a realization that opens the field of possibilities by showing how local resources can be exploited to produce beautiful architecture in the service of the community. A model that can be reproduced in other regions of the country.



Kasungu Maternity Waiting Village, Iwan Baan 2016



Kasungu Maternity Waiting Village, Iwan Baan 2016

The gardens of Ben M'sik: built by the community, for the community



The gardens of Ben M'sik main entrance, Morocco, Alessio Mei Photographie 2022

In 2003, the Casablanca bombings killed 41 people. The terrorists were all from the Sidi Moumen slum. Obviously, these neighborhoods lack the least means. These are often fertile grounds for this kind of tragedy (crime, unemployment, extremism ...).

Therefore, access to decent housing, quality education, and adequate public services is a viable solution to restore a minimum of "social justice". It is with this in mind and as part of the "Cities Without Slums" program that the social housing built in Ben M'sik was created to improve the living conditions of 240 families from the slum "Douar Khalifa" located near the project site.

Moreover, unlike several other housing projects, the proximity between this one and the location of the slum concerned has avoided uprooting the inhabitants of their usual environment, without major disruption of their daily lives. The project benefits from a privileged location in the middle of several facilities and local services, in particular a mosque, a health center, a youth center (under construction), a social center, a local sports complex, a vocational training center, and several other schools.

The shallow depth of the buildings allows 83% of the apartments to benefit from a double orientation guaranteeing abundant natural light and very efficient cross ventilation.

Also, the serpentine morphology of the complex allows for open views of the large adjoining park.



The gardens of Ben M'sik interior graden, Morocco, Alessio Mei Photographie 2022

The architectural vocabulary of the project is inspired by the history and heritage of Morocco, the beauty of its light, and its natural landscapes.

The forms, colors, and textures allow the buildings to be strongly anchored in their geographical and cultural context. Just like the houses in the neighborhood with their varied shades of ochre color.

This respect expressed towards the local identity allows an integration of the project into its environment, which facilitates its adoption by future residents and their neighbors.

For the bioclimatic aspect, the transversal natural ventilation of the apartments with double orientation cools the interiors.

Also, the exterior gardens inspired by Moroccan "Ryads", will be covered with dense vegetation that softens the

atmosphere in summer, and let the sun's rays through in winter, thanks to the predominance of deciduous trees.

The under-sabat passages stimulate the natural ventilation of these "open patios", thus sparing the residents from the heat island phenomenon. Planned on public land, the project cost the equivalent of only 230 euros per square meter, despite the installation of elevators in all 18 buildings.

The whole operation was partially self-financed up to about 47%; thanks to the sale of the commercial area, 15% of the budget was provided by the "Fonds de solidarité habitat et intégration urbaine (FSHIU)", and only 38% will be provided by the future residents, mostly through a long-term credit guaranteed by the state through its Damane Assakan fund.



The gardens of Ben M'sik, view of the parc, Morocco, Alessio Mei Photographie 2022



The gardens of Ben M'sik, Shopping pedestrian street, Morocco, Alessio Mei Photographie 2022

A contemporary sustainable museum within the Unesco's patrimonial heritage of the Dahomey's kingdom in Abomey, Benin



3D view of the museum, INUI 202

The museum project is part of the national tourism and cultural program «Benin Revealed», and is notably part of the project of partial redesign of the royal palaces, as a federating equipment of the reconfiguration of the heritage visit. It is therefore conducted in parallel with the project of restoration of historic buildings, in order to install eventually a global coherence to the whole, in the cultural and traditional existing respect.

The particularity of the project: «to keep the link between the material and the immaterial». It will reflect the grandeur of the dynasties that lived there, but absolutely not in the architectural mimicry of existing palaces. It aims to create a dialogue by installing a new, familiar yet different ensemble. It borrows codes, in all humility.

Some precepts will therefore be implemented in the museum project: the relationship between ground and sky, the definition of limits, the relationship to the exterior, the relationship between interior and exterior, successive depths, a monolithic identity, a reference line marking horizontality, simplicity and rawness, the strata of modernity, the human factor.

“ What is the sacred for me ? More exactly: what is my sacredness? What are the objects, the places, the circumstances, that awaken in me this mixture of fear and attachment, this ambiguous attitude that determines the approach of a thing at the same time attractive and dangerous, prestigious and rejected, this mixture of respect, desire and terror that can pass for the psychological sign of the sacred? ”

The future museum of the Epic of the Amazons and Kings of Dahomey will be located in downtown Abomey, within the site of the royal palaces, which have been listed as a UNESCO World Heritage Site since 1985.

It will be built on the plot of land known as the "Cour des Amazones", a former training ground for the warriors and guards of the palaces.

This courtyard will have to keep its symbolic and patrimonial character because it already forms the link between the two most frequented areas of the palaces. It will perpetuate the image of the royal city as a living place, still protected by its royal descendants (and now the international community).

The museum will also respond to a territorial logic because it is located in the historical North/South-West axis, the Adja-Tado, which defines the typology of the palaces according to a global direction and following the precept of the founder of the Houegbadja kingdom: "that the kingdom be always made greater".

The project is therefore based on a vertical gradation: first the ground, on which rests a base, then stands the built structure (walls or vegetation) from which emerges the roofs touching the sky. It takes advantage of these components to assert its presence.

A reference line guided by the height of the existing surrounding walls is set up and stretches. It creates the reference point between the sky and the earth, and materializes the mass anchored to the ground of the walls and base of the museum. From this line emerges a visible signal: the fringe of the roofs, "hats" slightly detached, of different heights, forms and overhangs in order to create a subtle dynamic.

The intrinsic writing of the walls and roofs will express traditional as well as contemporary techniques, in order to anchor the future equipment in the 21st century (and not in the past).

On one level, the building will then stretch into the site from the public space to finally create a background. Its dominant colors are red ochre, recalling the natural and original earth, to the gray of the contemporary raw concrete.

“ **West African architecture as a whole, "born in situ and shaped by local constraints, is a contextual expression, a practical and aesthetic response to the surrounding environment, to the basic materials available, to the cultural perception of space, time and one's place in the universe.** ”

As cultural buildings are strong vectors of ecological awareness among young citizens who constitute the bulk of their users, the design of the museum is therefore based on a bioclimatic and innovative approach, as a demonstrator of environmental architecture in the particularly difficult humid tropical context of Benin.

On a large scale, the landscape value brought by the project guarantees the insertion of the building in the site and its anchorage in the territory.

The project is inscribed on a natural topography and reinforces its natural characteristics. And the measured contribution of plant species is notably reflected in order to preserve the existing balance of fauna and flora, and to offer shade.

The museum aims to be both visible and efficient, passive and effective. In order to reach the objectives of summer and winter comfort, systems will be put in place that depend on the surrounding natural system.

Through this social will, the very pure configuration of the museum's forms and its orientation will favor the development of the site in order to create a natural bioclimatism, and will favor the increase of biodiversity.



A detailed analysis of the local climatic conditions and a careful reading of the strengths and weaknesses of the existing surrounding buildings dictate the choices, both in terms of the envelope and passive solar protection devices, the protection of ventilated and energy-producing roofs, the management of external circulation, the creation of places that are self-protected from the sun and naturally cooled by air circulation, and water management.

This approach, which favors so-called passive strategies and devices, is in line with the objectives of energy sobriety and environmental efficiency.

The architectural ensemble, simple and minimal in spirit, will be enriched by the work of local craftsmen (decorative modenatures, sculpted wood), the primary idea being to promote local materials and processes (particularly bio-

sourced) as well as human know-how and craftsmanship. Particular attention will be paid to the durability and maintenance of the materials chosen.

In particular, the use of earth (compressed earth brick or BTC, terracotta) will be favored for these reasons, but also for its thermal qualities (application of the principle of wall-mask 3, search for a strong inertia).



Aerial 3D view of the museum, INUI 202

Upstream, particular attention is paid to the archaeological component of the site as a direct testimony of the Abomean civilization.

The future museum will preserve as much as possible its impact on the site in order to reduce the risks of degradation or excavation.

It is also part of a pedagogical and patrimonial approach by highlighting the main symbols: oral and visual traditions, cults and religion, and the duty of transmission. In particular, the place of the events and rituals regularly taking place in the courtyard of the Amazons is preserved, while inscribing the use of the site as a true public square, and as a focal point of the museum.

The project will also be a new cultural center for the city of Abomey. Because of its configuration, it will be accessible outside of the museum's opening hours and will be able to host additional events, notably in the temporary exhibition room - and thus create a new social animation.

It will also have an impact on the community and the economy of the city, with regional, national and international tourism benefits.

Finally, it will be clearly important to allow, thanks to the global project of construction of the new museum and restoration of the existing royal palaces, training in construction techniques and especially in conservation, supported by a long-term management and prevention plan for the entire palace site.

“ Today, it is not a question of copying (the) monuments or the magnificent vernacular constructions, but of being inspired by their bioclimatic teachings ”

There is therefore a place between the «all traditional» and the «all modern», and this is where innovation can find its place: combining, and above all, taking advantage of different seasoned techniques in order to respond to needs. The use of local energies and a sustainable development approach are also levers of the ecological transition: natural ventilation, solar energy, rainwater control, a large workforce and artisanal know-how.

Through training and transmission.

Not forgetting the notion of sustainability through the use of materials appropriate to the climate, but also by ensuring proper maintenance and management of buildings and infrastructure in the long term, taking advantage, for example, of technological advances already well established on the continent. Among the various actors, architects have a prominent and essential role to convey the right gestures.

Professionals such as Diébédo Francis Kéré, for example, are the bearers of this reasoned and frugal approach, demonstrating that the involvement of the population, and more broadly of politicians, can make the act of building more responsible. On a larger scale, it is therefore essential to develop an architecture that is specific to each culture and forget about duplicable and standardized models.

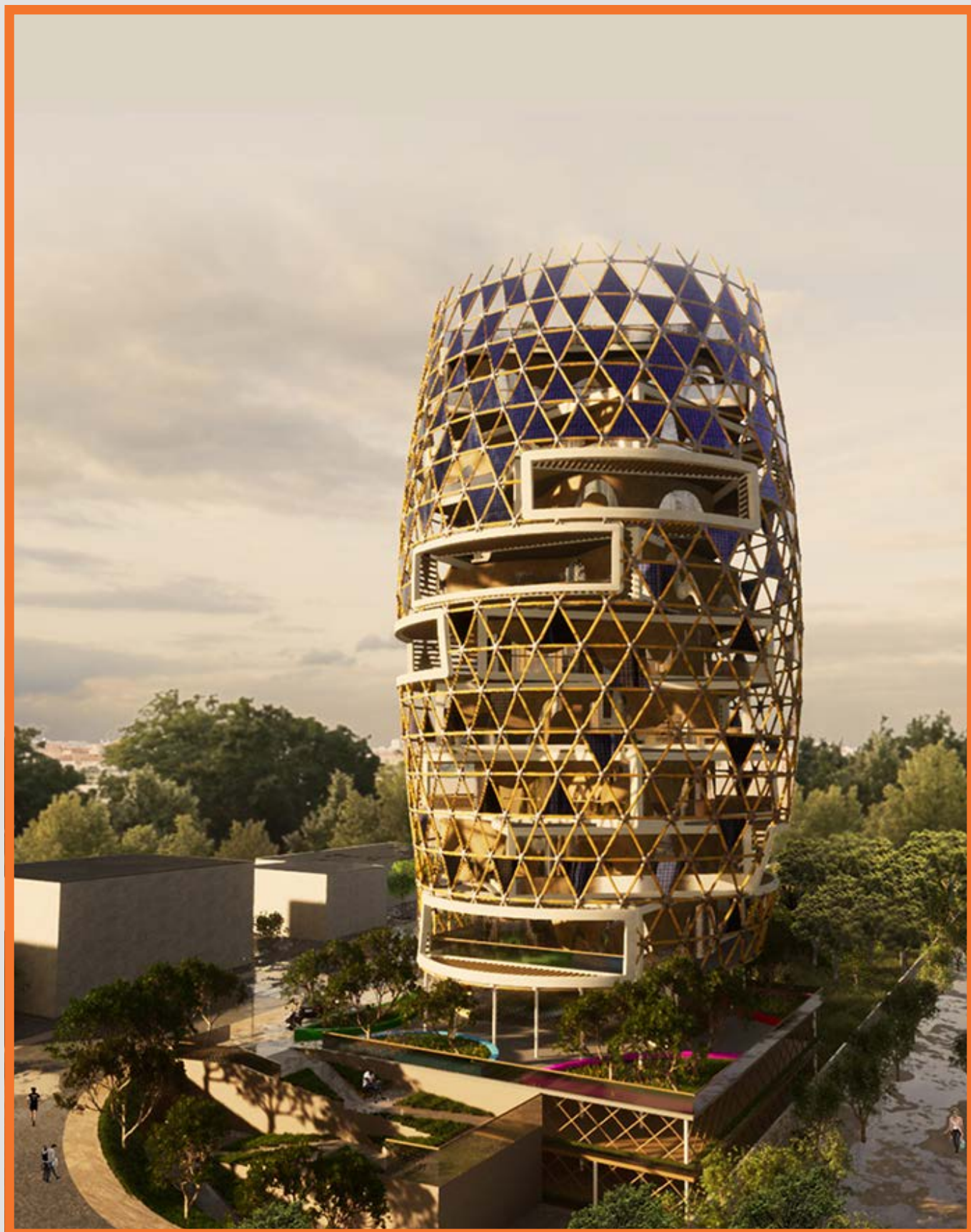


View of the courtyard of the royal palace, Benin, F NTHEPE 2019



Housing Sidi Abbaz, Mzab Algeria, André Ravéreau Manuelle Roche ADAGP 1976

The mask of emergence



Global 3D view, Chorus architecture 2022

Associated with ancestry, communitarianism and used during a specific ceremony, the mask, when worn by an initiate to the detriment of his or her face (proper identity), is a work of art that passes from the status of an object to that of a representation of a socio-cultural ideal whose presence is venerated. The mask is thus the face of the common will and its use implies expectations projected in prayer or in recognition of the aspirations of the people who use it after having produced it.

The objective of this project is to develop a popular, identifiable, reliable, and unique reference while creating a workplace that combines the well-being of people with performance and nature.

The approach envisaged is to combine a set of artifacts that will be exploited to produce not a functional object, but an intelligent and autonomous vertical ecosystem, a symbol of sustainability and architectural resilience.

La masque de l'émergence is a reflection project located on a 1000 m² plot in the heart of Yaoundé, Cameroon. Faced with the climate emergency, particularly due to

the increase in greenhouse gas emissions in the world, all actors in the construction industry must rethink their construction models. The idea of chorus architecture is therefore to anchor the emergence mask in its context while taking into consideration the requirements of sustainability as prescribed by the Sustainable Development Goals.

The objective is to propose an ecologically responsible and sustainable building that consumes as little energy as possible while reducing its impact on the environment and the health of its occupants.

In order to produce contemporary architecture, the concept of "Form Follow Function" has been revisited. The challenge is to create a construction that merges a conceptual framework that allows the meeting between biophilic architecture taking nature as a source of interpretation, and iconic architecture. It is therefore a question of constructing a built ecosystem that frames the functional opportunities described by the "brief", but above all, that projects its own know-how, as a basic model to be reproduced to improve the built landscape.



Interior 3D view of the conference room, Chorus architecture 2022

Four main Cameroonian cultural elements inspire the morphology of the emergence mask, namely, the Fang basketry of Central Cameroon, the shell hut of Far North Cameroon, the elephant mask of West Cameroon, and the torchi construction technique.

The torchi is a thousand-year-old construction technique anchored in the habits of the forest peoples and which responds to the need to use locally available materials. One of the advantages of this technique is its lightness and its resistance to earthquakes and strong winds.

The elephant mask is present in rituals in the Grass Fields region, is composed to represent an insider society, and is structured in a composition that incorporates Ndop loincloth motifs.

The obus hut is a truly sustainable architectural expression adapted to the climate and has useful assets in the passive bioclimatic and low-cost design approach.

Finally, Fang basketry is subject to variations according to social groups and, like all plastic fields, throughout Africa. It occupies an important place in societies.

The skillful mixture of these different elements while respecting the basic urbanistic principles has allowed the structuring of the form with multiple points of view towards the building, but also from the building. The different levels are then emptied, to create depth and perspective.

The morphology of the building thus offers a magnificent panorama of the city of Yaoundé.

In addition to this, the vegetation of the different platforms is added.

However, given the root development and weight of the plants, planters are placed in front of the offices, on each landing. The planters will serve as a support for the plants, and the plants as a natural acoustic barrier for the spaces.



House made of torchi



Elephant mask of West Cameroon



Obus hut of Far north Cameroon



Fang basketry

“ Sustainability and Intelligent Façades ”

Inspired by the desert cactus technique, reinterpreted in the Djenné mosque, the project integrates a natural and intelligent facade that creates an air veil, which helps to repel hot air around the building.

Passive technologies avoid the need for high energy expenditure to cool the spaces while creating shade in places and thus a nest of thermal relaxation.

This facade is entirely made of bamboo because selected at maturity, that is to say after a minimum of 5 years of growth, the bamboo once treated Naturelle, offers a resistance comparable to that of steel with the particularity of fixing the carbon.

“ Envelope and renewable energy ”

The bamboo façade and the curve of the sun are used to integrate hybrid panels that make the envelope of the project intelligent. When it receives sunlight, a photovoltaic panel converts only about 20% of it into electricity.

Worse, the more sunlight it receives, the more its cells overheat and the less electricity it produces.

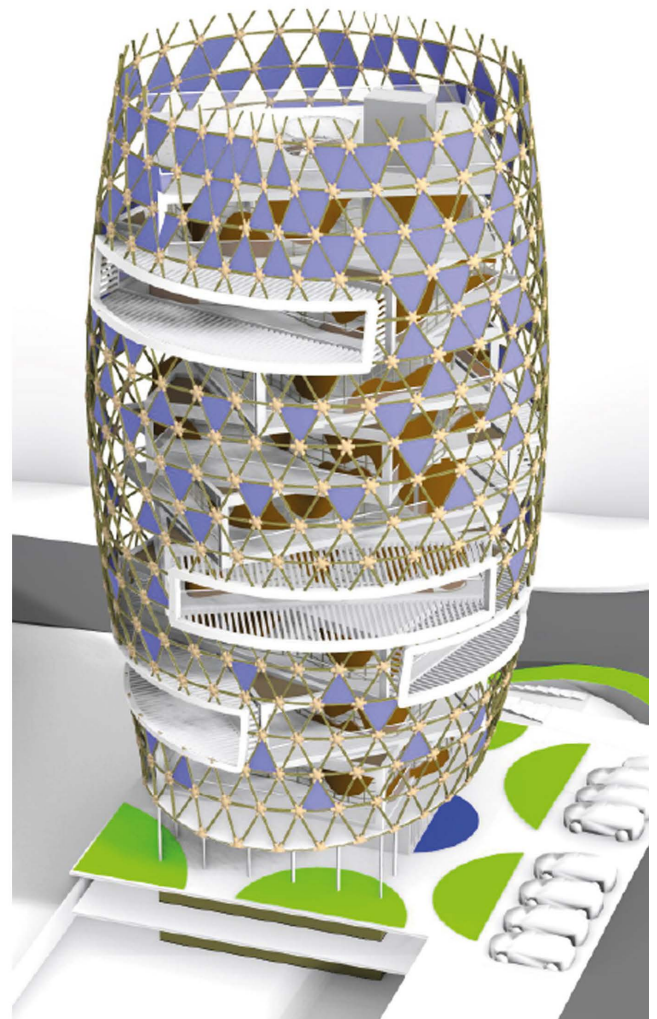
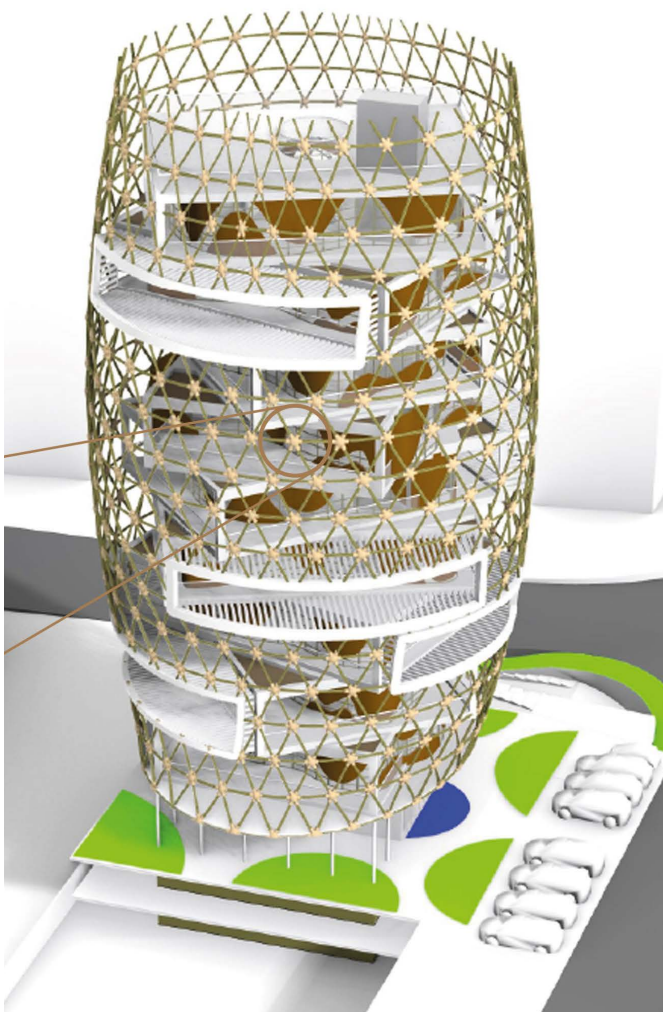
On the front side, the panel produces electricity on the back side, thanks to a heat exchanger developed by BASE, which is fixed to the back of the panel, the heat is transmitted to the airflow circulating under the panels.

Equipped with turbulators, this heat exchanger makes it possible to obtain warm air by making it linger on the back of the photovoltaic panels.

Thanks to the innovative heat recovery system, the heat released at the back of the panels is extracted for heating or drying purposes.

The air circulating behind the panels prevents the cells from overheating and improves their electrical efficiency.

As for water management, the building exploits the vegetation boxes that create a water circuit, with treatment and storage.



Sustainability and Intelligent Façades, Chorus architecture 2022

The transition to sustainable architecture and urbanism is a process involving the deconstruction of standard conceptual paradigms and cataloged needs-response strategies.

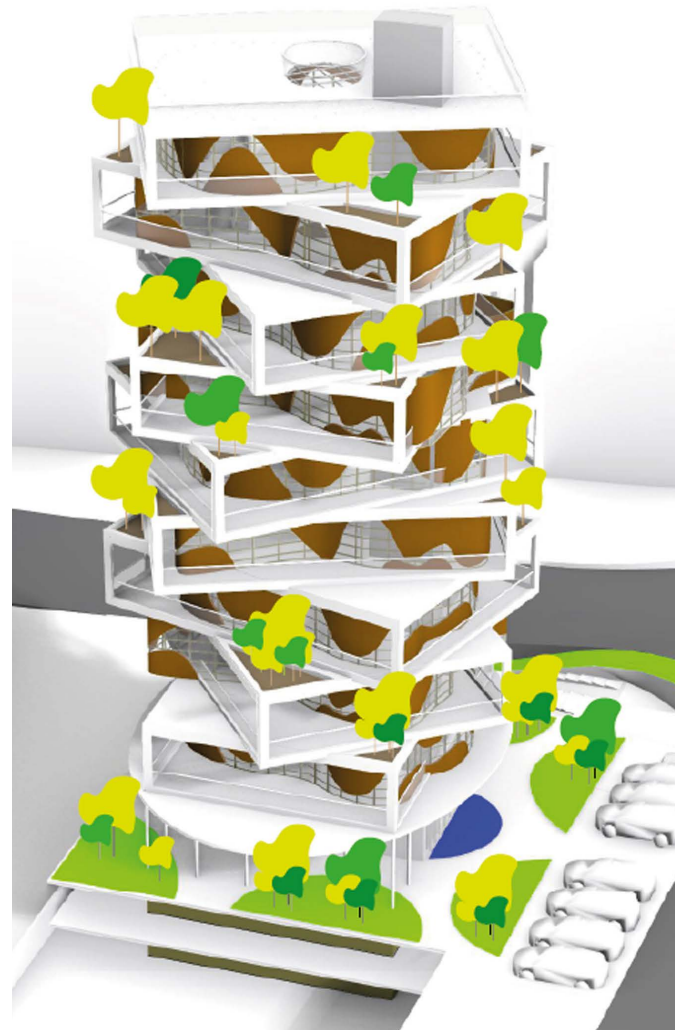
It is necessary to reinvent profitability, for example by drawing on the principles of the blue economy. Reorganize resource exploitation (circular economy), restructure production processes (empowerment), and consider the creation of an eco-responsible contextual identity.

The mask of emergence is therefore a symbol of this approach. It is a starting point toward the re-contextualization of architecture, especially that built from "contemporary" functional programming.

It is a step-by-step approach, which can be evaluated by twin digital models, in order to help build a sufficiently large database to invite the development of a scientific approach. While preparing a mastered and successful transition from low to high-tech, based on intelligent local models.

It is time to re-interrogate the lived space, to rethink the screens and the surfaces by integrating nature and the void as materials and energy sources.

We could consider this project as a pilot operation, which - to have a greater impact - will have to be multiplied, at a more accelerated rate.



Vegetation on the platforms, Chorus architecture 2022



Interior 3D view of the hall, Chorus architecture 2022



Global 3D view, Chorus architecture 2022

Modernization of South-Eastern Congolese rail transportation Case study, Likasi Railway Station



Railway Station Model, Joel Mukalay 2020

The DRC is often defined as a “veritable geological scandal.” because of its subsoil treasure and the South-Eastern region of the DRC is the heart of this treasure. Since the construction of its first railways in 1909 to facilitate the movement of mineral reserves, goods, and passengers, the railways have experienced constant deterioration from the 1970s to the present day. The Likasi station reconstruction project is a buffer project that aims not only to modernize the visibility of the “Ville coquette”, but also to open up a more detailed study on the railway redevelopment of the city and the province. For a country with an area of 2,345,000 km² and a region of 496,871 km² and a population of more than 15,000,000 inhabitants in Katanga, the communication routes are becoming more and more crucial for the development of the area.

The railway meets all the necessities to respond to the opening up of landlocked parts of the area, to ease the movement of goods, and crops... in the region to secure its self-sufficiency and its development without external financial assistance. The project on the reconstruction of the station of Likasi is the first step to rebuilding old rail stations, building additional stations, and reunification of the localities by means of railways.

Henry Morton Stanley, who discovered the mouth of the Congo river once famously declared to King Leopold II “Without the railway, the Congo is not worth a penny”². Congo’s immense mineral reserves – currently valued by some estimates at more than \$24 trillion and including 70 percent of the world’s coltan, 30 percent of its diamond reserves, as well as vast amounts of cobalt, copper, gold, and many other sought-after primary commodities dubbed the territory a “veritable geological scandal.”

The real scandal, however, is that this treasure has yet to better the lives of the people of Africa’s second-largest and fourth-most populous country. On the contrary, the most recent edition of the United Nations Development Program’s Human Development Index ranked the lush, mineral-rich DRC at the absolute bottom of the 187 countries and territories included in the survey (tying landlocked, mostly desert Niger for last place), while the Fund for Peace’s 2013 Failed States Index put the country in 177th place out of 178 countries (just a notch above long-collapsed Somalia). The main factor which justifies the poverty of the Congo is the lack of proper infrastructure, which deprives the country of exploiting its natural reserves. That factor is particularly reflected in the Southern region of the Congo.



Kinsasha-DRC, Leandry JIEUTSA 2022

To better understand how the situation reached such a critical level, one has to dig deep into the history.

Likasi, as a case study, was created ex nihilo in 1917, after the opening of the mine of the same name.

It was not until 1966 that the city was renamed Likasi. As soon as the location of the Katanga Railway (CFK) halt is fixed, Likasi-gare, counters or factories offering food, hardware - for "trading products" - fuel, etc., settle in the vicinity. They are created by courageous traders, often Mediterranean (Greeks, Jews, Italians), Arabs, Senegalese, Hindus, etc., along the access roads to the station, along the railway (the boulevard of Tabora) and the track that leads to Panda (Kambove Avenue) on the Likasi plateau.

In the 1960s, the population density in Likasi was estimated at 78,000. The most frequently used transport was by road, due to the lack of constant frequency of trains. Today, the population is around 650,000 inhabitants, which means that it is more than 8 times higher than in the 1960s.

The current station was built taking into account the density of the time and with a normal service expectation of about 20 years. This suggests that as early as 1970, the current Likasi station already needed redevelopment to respond favorably to the demands of a growing population. One of the main reasons for the pressing need to redevelop the current station arises in the growing population which turns much more to agriculture, hence the need for exchange and sale of products with the localities and surrounding towns.

However, the main use of the station has had to keep the same functionality as since its creation, the movement of mining products by rail.

To respond to current problems, while taking into account the current realities facing the city, the project of a terminal in the city of Likasi aims to serve the population in a more efficient manner, with modern technology and a capacity of approximately 700 passengers per hour.

The station presents two main squares outside the complex. The Eastern Station Square belongs to the side of the city with good transport infrastructure, the existing central bus station, and the administrative center.

In the forecourt area, passenger flows and car traffic flows are divided. Landscaping is foreseen on the site: awnings are both shady and are protected from heat, which is typical of the Congo climate.

The design of fountains will positively affect the microclimate during the hot summer when there are stops for individual transport.

Meanwhile, Western station square occupies a larger area, which corresponds to the intensity of passenger flow in that part of the city. The station square is designed in such a way that the entrance to the train stations and the entrance of public transport are separated. Passenger flows and the movement of public and transport personnel are separated.

The station complex consists of two volumes connected by a concourse with a capacity of 700 people an hour. The frequency of passenger flow is estimated to be 300 on the Western part of the station, while on the Eastern part - 400 people. The functionality of the building has been designed in a way, that a passenger, upon entering the building, receives a visual orientation in the building's space.

The planning structure of the station is solved in such a way that a person, upon entering the building, receives a visual orientation in the space of the building. The consistency of the location of the main passenger premises corresponds to the functional and technological process: obtaining information, arranging a trip (purchase of tickets, baggage check, baggage storage, access to the platform or waiting areas)

The building of the railway station has a symmetrical plan on the ground floor and an identical arrangement of parts relative to the axis of symmetry.



Symmetry gives the perception of completeness, stability, and regularity. The building is proportional, as it is designed on the observance of certain proportions of both the external volume and the internal space. The artistic expression of the work of construction and material, tectonics, is expressed through the use of small prefabricated structures.

The volumetric-spatial composition is due to the functional-technological scheme of the railway station. The facade walls are provided with curtain walls for vertical protection from sunrays, especially in the western part of the building.

The materials used for the construction are local. The facade systems' colors are used on the bases of the cold gamma. In accordance with the requirement of energy efficiency, solar batteries are installed above the atrium and on the roof of the building.

The impact of such a project is beyond what Likasi or the whole region could expect as it will revolutionize and industrialize the whole region and the whole country together with if expanded to other localities and cities.

Mzee Laurent Desire Kabila, former president of the DRC and hero of the nation, once referred to copper as the green copper. He envisioned food self-sufficiency in the country through agriculture.

In addition to agriculture, and its immense mineral reserves, the Congo is rich in rivers and lakes.

It involves a fishing industry that will support more than one community. The rich Congolese soil also allows success in animal breeding and meat production.

All these agricultural products, fish, and meat can only be used for food self-sufficiency and exportation to other countries of Central Africa and also Southern Africa if it is produced on a macro-industrial scale. The main tool for the realization of such a vision involves means of communication that respond to such demand.

The social situation of the country in general and of Likasi, in particular, can be changed by the construction of stations which will be done in parallel with the development and restoration of already existing railway lines, to impact the economic and social situation of the whole region and country. To name a few positive changes that the restoration and intensification of rail transport will bring,

The railway facilitates long-distance travel for a huge territory such as the Katanga or the all Country and transport of bulky goods which are not easily transported through vehicles. Railway transport will help in the transportation of goods with speed and certainty.

This way, the import and export of goods will significantly be boosted, agricultural activities will resume on a larger scale and the outcome would be a significant reduction in goods prices on the market.

The industrialization process of the region will be launched once again by easy transportation of coal and raw materials at a cheaper rate. With the unemployed over 80 percent, the modernization of the railway station and the launch of railway activities will encourage the mobility of labor and thereby provide great scope for employment in many sectors. It is also quite well known that the Railway is the safest form of transport.

Moreover, the traffic can be protected from exposure to the sun, rain, snow, etc. In addition, The carrying capacity of the railways is extremely large. Moreover, its capacity can easily be increased by adding more wagons. With a capacity of over 500 people per hour, the Likasi railway station will help return the railways to the largest public undertaking in the region. Railways perform many public utility services.

Their charges are based on how the traffic can bear principles that help the poor. In fact, it is a national necessity.

The other important factor will be the social inclusion of the region with the means of rail transport, which is affordable to the class of the population.



Birdview, Joel Mukalay 2020

In retrospect, the City of Likasi and the entire Katanga region or even the entire country of the DRC is in a degrading economic situation.

The way out is only in an internal reorganization of its communication channels. The Likasi station project brings the main question of the city and the province to the fore; namely the railways. The development of the city of Likasi is directly linked to the restoration of its railways and the restarting of rail transport on a regular basis. This involves the movement of goods, exploited mineral reserves, agricultural products, and fisheries, which are the key points of the economic recovery of the city, as well as the province.

This project will not be limited to reviving the economy of the city, but may well extend over the entire Katanga agglomeration, including other cities and isolated localities. The unification of all parts of the South-Eastern region of the DRC through railways, with the construction of stations that aim to minimize the negative environmental impact of buildings through increased efficiency and moderation in the use of materials, energy, development space, and the ecosystem as a whole.

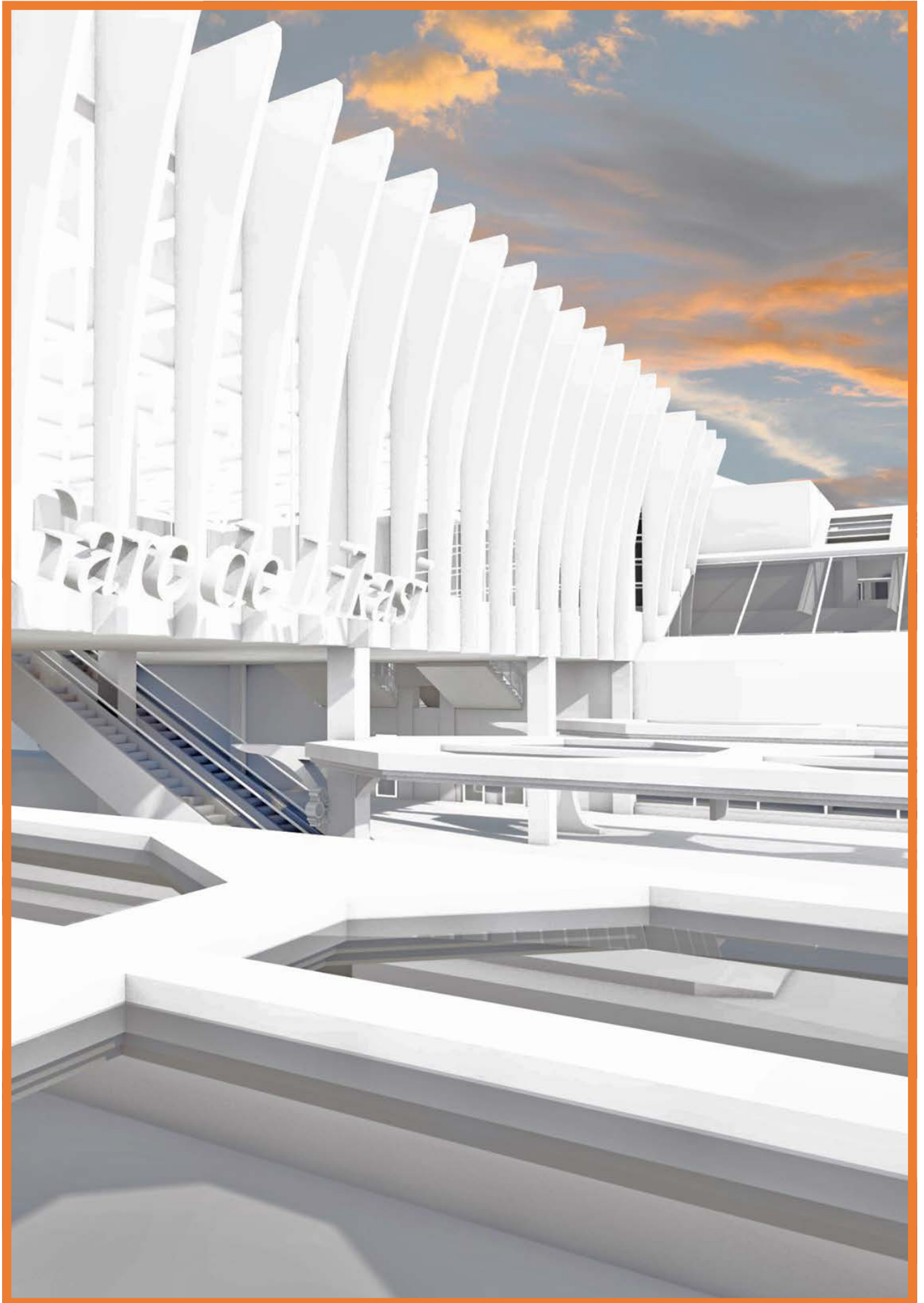
These types of stations with sustainable architecture will make use of a conscious approach to energy and ecological conservation in the design of the built environment.



Platform, Joel Mukalay 2020



Birdview, Joel Mukalay 2020



Sky view over platform, Joel Mukalay 2020

Mahatma Gandhi International Conference Center in Niamey, Niger



Mahatma Gandhi International Conference Center, 2020

For the 33rd Ordinary Session of the Assembly of Heads of State and Government of the African Union, initially scheduled for July 2019, the Republic of Niger was chosen as the host country.

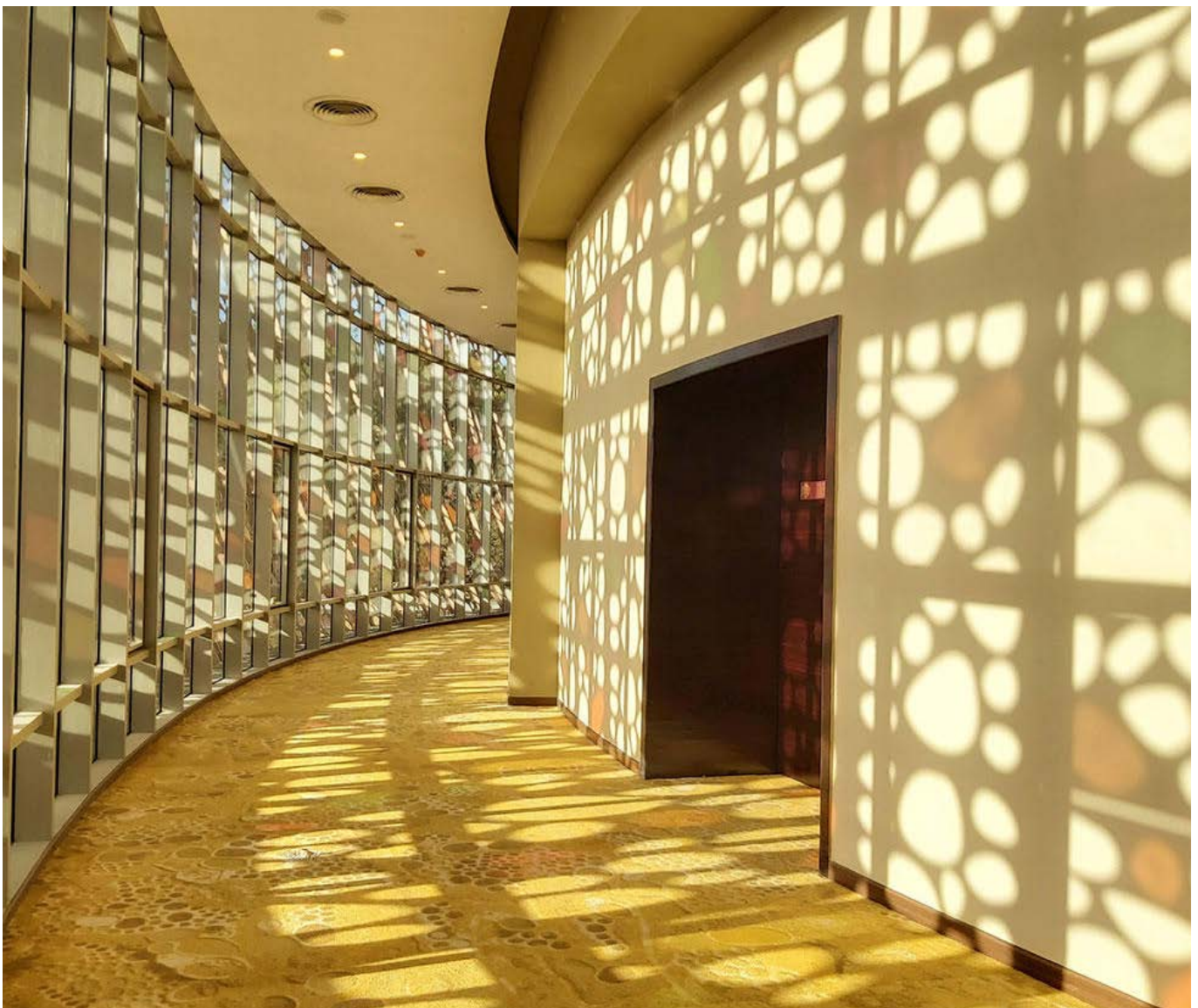
By agreeing to host this international event, the country wanted to increase its visibility on the African and international scene and strengthen its diplomatic influence. In addition, it was a question of allowing investors to benefit from the spin-offs of such an event. Indeed, given the magnitude of this conference, the city of Niamey was to be the point of convergence of 55 member states of the African Union, representatives of international and regional organizations, and journalists. A total of 5,000 people were expected to participate in the event, including 55 African heads of government.

However, the organization of a conference of this magnitude requires large facilities specially designed and equipped for that. Facilities that Niger, unfortunately, did not yet have at this stage.

The government of Niger has therefore planned the construction of an international conference center in Niamey. This will allow the country to host frequent large conferences in the future. Having already deployed funds for other development projects, the Nigerien government needed support to realize this project.

In addition to financial support, technological support was also essential for the successful completion of the project. The Indian government, therefore, provided a grant of \$35.48 million to complement the \$20.52 million provided by the Niger government.

The project has been named the Mahatma Gandhi International Conference Center (MGICC). The land allocated for the project by the Government of Niger is located in the heart of Niamey, near the government and presidential offices. Thanks to the close ties between the two states and especially the importance of the initiative, the necessary approvals to launch the project were obtained fairly quickly.



Mahatma Gandhi International Conference Center, 2020

The Nigerian government selected Shapoorji Pallonji & Company Private Limited (SP) as the EPC contractor to carry out all the tasks. The Indian conglomerate was responsible for the design, procurement, construction, and commissioning of the project. SP's design studio, however, collaborated with the engineering firm STUP Design Forum, which handled the detailed design and engineering. After submission of the proposal to the Nigerian government in January 2018 and following various discussions, and negotiations, the order was confirmed in July 2018. As for the construction work, it started immediately after the contractual agreement was signed in October 2018.

The MGICC project is marked by a synthesis between Niger culture and Indian expertise.

The designers were inspired by elements of the local context related to natural landscapes, motifs, and symbols to propose a project with which the Nigerian people can identify.

Thus, whether it is the organization of the whole complex, the shape of the buildings or the more specific elements on the buildings or inside, the references are numerous.

The layout of the complex provides good exposure to the whole complex and facilitates circulation between the different components. Similar to a calabash, an object with an important place in local culture, the presidential hall stands out from the rest. Its majestic and imposing character is supported by the freedom tower, similar to the adobe walls of the Agadez mosque.

The steel posts and frames installed at the periphery of the group of buildings have the appearance of baobabs, a tree that holds a very important place in local culture.

The brise-soleil and cladding on the facades are reminiscent of tribal motifs and symbols from Niger. The interior spaces are marked by carpets with local motifs and walls decorated with local artworks. Landscape nurseries were installed on sites near the project well in advance, which proved useful towards the end of the project when the landscaping work was carried out.

By making these various choices, but especially by paying close attention to detail, the designers have made the MGICC a spacious, modern, and environmentally friendly complex. With a built-up area of approximately 1.63 hectares, it has a capacity of 3300 guests and is equipped with state-of-the-art facilities that make the local population proud. People flocked in droves to discover the project upon its delivery in December 2019.

Greeted as they entered the site by the statue of Mahatma Gandhi, they were able to contemplate the 21.57-meter-high Freedom Tower and appreciate the outdoor amenities marked by green spaces and water features. They were also able to visit the presidential block, the plenary hall, the multifunctional meeting and banquet hall, the ministers' block, and an exhibition area illustrating the life of Mahatma Gandhi, Nelson Mandela, and other legends.

To complete the project, SP had to overcome many technical difficulties. Niger being a land-locked country and the nearest port being Cotonou located 1100 km away, the major difficulty was supplying the site with materials. The designers, therefore, had to review certain choices during the construction phase.

This is the case of the steel posts which were replaced by reinforced concrete posts. The constraints of the site also led to readjustments. This is the case of the insulated footings planned for the presidential and administrative blocks which were replaced by footings on piles and trellises following soil studies.

In addition to having posed many challenges on the technical level, the project proved to be a real struggle on the human level due to the cultural mix within the project team. Indeed, workers were mobilized from neighboring countries, namely Burkina Faso, Chad, Nigeria, Togo, Ghana, Sierra Leone, Senegal, and the Gambia, but also from Oman, Dubai, and India. Many experts and supervisors were also moved from India to Niger. During the peak period, about 2,000 workers were on-site to deliver the project on time.

The success of the project, therefore, relied mainly on leadership and team management skills.

Today, the Mahatma Gandhi International Conference Center is considered an architectural and cultural jewel for Niger. It allows the country to host events with great stakes and to radiate at the level of the continent and the world. In addition, it is a pride for the population which finds itself in this architectural project.

Above all, this project has generated jobs in the sub-region and beyond and has strengthened the relationship between Niger and India.



Niamey-Niger, Google earth May 2022

African Architecture and Urban Heritage





Architectures of the Independence in Dakar: towards a new Identity



Supreme court, Dakar-Senegal, Ji-Elle 2008

Built on the Cape Verde peninsula, which had been home to the Republic of the Lebou people since the 18th century, the city of Dakar was founded in 1857 by the Frenchmen Emile Pinet-Laprade and Auguste Léopold-Protet, before becoming the capital of French West Africa (AOF) on 1 October 1902, and then of the Republic of Senegal following its accession to Independence on 4 April 1960.

Like most African capitals at the time, Dakar was to become the testing ground for a new definition of African

modernity, guided by the newly elected President Léopold Sédar Senghor. In addition to the Culture dear to the man of letters in power, architecture was also part of the main axes of the country's reconstruction.

What are the architectures created by the Independence movement in Dakar and how did they reflect a new identity for Senegal? What remains of them today?

This is what the present article seeks to respond to by showcasing some of the most emblematic modern buildings of the Senegalese capital.



Dakar-Senegal, Leandry JIEUTSA 2022

“ Architecture as a component of modernity ”

As soon as he came to power, Léopold Sédar Senghor placed Culture at the forefront of the country's economic, social and political development, reflected in particular through its cultural policy strongly inspired by the Négritude movement and dictated by a set of legislative and regulatory texts allowing the integration of Arts and Culture in the country's reconstruction.

The architecture was not left out. The museums, hotels, banks, and other buildings built at the time reflected a real desire to associate architecture with modernity, whether in terms of their location within the city or their architectural language.

The architects, led by leading Western figures such as Henri Chomette or Roland Depret, or local ones such as Pierre Goudiaby Atépa or Cheikh Ngom, had the task of bringing to life a truly modern cultural context inspired by the local architectural and artistic heritage.

In 1978 were passed Laws n°78-43 concerning the orientation of Senegalese architecture and n°78-44 related to the exercise of the profession of architect and to the Order of Architects. The first one notably considered architectural quality as being "of public interest and utility throughout the national territory" (Article 1), and architectural creation as drawing "its inspiration principally from the values of the Negro-African civilization, particularly the Sudano-Sahelian

civilization, and from the demands of modernity" (Article 2). The second led in particular to the creation of the Order of Architects (Article 12).

Law n°78-43 also promoted "asymmetrical parallelism" as an underpinned principle of modernity. This intellectual concept originated by Senghor and transcribed to architecture was defined by himself as "a diversified repetition of rhythm in time and space". The Senegalese architect Annie Jouga explains the principle very simply as follows:

***"In life, nothing is really symmetrical: cut a body in half lengthwise, and you get two halves that are quite similar but different... In architecture, this theory creates ruptures, pretty dizziness, and interesting plays of light under the tropical sun."* (Le Chatelier. L. 2017)**

The President's house later became the concept's Manifesto. Designed in 1978 by French architect Ferdinand Bonamy, the 800m² house built on a 7,849m² plot is the very embodiment of asymmetrical parallelism, taking the form of a deconstructed plan marked by striking volumes, irregular angles, and differences in levels which are also reflected in the treatment of the different façades. Later acquired by the State of Senegal, the house which was rehabilitated and erected as a museum in 2014, now stands as a symbol of architecture representative of Senegalese modernity stamped by the vision of its initiator.



Maison Léopold Sédar Senghor, Eiffage Senegal 2014

“ Forms and functions of architecture ”

While architecture during the Independence era in most African capitals was primarily an opportunity for the newly created States to demonstrate the new ideals of the ruling powers, it manifested itself in different forms and functions.

In Dakar, the civic architecture remained on the whole a legacy of colonization. Indeed, most of the buildings originally intended for the colonial administration remained in use after independence. This is the case, for example, of the Palais de la République, built-in 1903 by French architects Deglane and Dumesnil, which housed the General Governor and then the High Commissioner of AOF, before becoming the main residence of the President of the Republic.

Another example is the National Assembly, built-in 1954 by the architects Badan and Dorout, which initially housed the Grand Conseil de l'Afrique Occidentale Française before being the home of the Senegalese members of parliament after Independence.

The new architecture is more prevalent in the economic and commercial sectors, with buildings associated with banks, tourism, and the business world. One example is the Banque centrale des États de l'Afrique de l'Ouest (BCEAO), built in 1985 by the Senegalese architects Cheikh Ngom and Pierre Goudiaby Atepa.

The building is composed of two main structures, the larger of which features a robust pyramidal façade made of reflective glass panels, which adjoins a lower and heavier structure that echoes the carved triangulation of the city's earlier Modernist period.

The Foire Internationale de Dakar (or CICES) is another example. Built in 1974 by the French architects Lamoureux, Marin, and Bonamy, the complex covering a total area of 120,000m² is based on the concept of asymmetrical parallelism and is composed of a layered ensemble of pavilions and exhibition halls, characterized by repeated use of triangular roof structures inspired by the building system of nomadic tents.



Foire internationale de Dakar (CICES), Iwan Baan

Culture, so dear to Senghor, was not left out. It was expressed through architectural projects such as the Dynamic Museum, conceived in 1966 by the architects Chesneau and Verola.

Originally designed as an exhibition space of art on the occasion of the first World Festival of Black Arts (FESMAN) held in Dakar in 1966, the compact, rectangular, white marble building became the national Supreme Court in 1990. Cinemas, as places of entertainment and debate, but also of the staging of modernity, are other examples, as shown by the El Mansour and Liberté cinemas built in the 1960s.

In the academic environment, the University of Dakar, which was inaugurated in 1959 and renamed the Cheikh Anta Diop University in 1987, is a real field of experimentation for modern architecture.

One example is the Conference Centre (or Khady Amar Fall Auditorium), built in 1976 by the Henri Chomette Design Office (BEHC). It stands as an impressive structure consisting of five white buildings resting on clay brick foundations, arranged as in a village concession, and whose unique façade texture is made of shells embedded in concrete.

Lastly, one of the main priorities in the reconstruction was housing, which was at the heart of the authorities' concerns from the 1950s onwards, with the creation in 1950 of the Société immobilière du Cap-Vert (SICAP) and in 1959 of the Société Nationale des Habitations à Loyer modéré (SNHLM).

These institutions gave rise to the creation of new urban housing typologies in the form of individual houses or apartment buildings, whose construction continued after Independence. Several forms of these dwellings can still be found today in the SICAP district.



Cinéma El Mansour, George Gobet AFP



UCAD, Adil Dalbaï



Building at SICAP, SICAP SA

“ A now neglected heritage ”

Today, 62 years after the "Year of Africa", what remains of the architectural heritage inherited from the Independence movement in Dakar?

Whether economic and commercial, cultural, academic, or residential, architecture has positioned itself as the materialization of modernity tinged with hope and renewal, headed by the leader and man of Culture Léopold Sédar Senghor.

Despite the attempt to make it a national architectural reference, the concept of asymmetrical parallelism so dear to the President has not taken off as expected. Although the concept still figures in Senegalese law today, very few architects have referred to it since the law was adopted in 1978.

From the 1980s onwards, the first disillusionments appeared, marked in particular by the structural adjustment programs put in place by the World Bank and the International Monetary Fund. After 20 years in power, Senghor stepped out to make way for Abdou Diouf, who became the second President of the Republic of Senegal in 1981. Architecture and modernity were no longer the priorities.

Besides, while most of the architects of this movement were foreigners, one can also wonder about the legitimacy of an architecture that was initially intended to be closer to the local heritage and traditions.

The establishment in 1974 of the country's first School of Architecture and Urban Planning testified to the willingness to train the new generation of Senegalese architects. However, the school was closed in 1991 after a series of student strikes.



Hôtel Indépendance, Iwan Baan

It was not until the 2000s that new schools of architecture opened up, notably the Pan-African Polytechnic Institute (IPP) founded in 1999, and the University College of Architecture of Dakar (CUAD) founded in 2008. Although these private initiatives testify to a desire to redefine and/or re-own a local, regional and continental architectural identity by training a new generation of architects, they are still not recognized by the Order of Architects of today.

While contemporary architectural production has given way to a purely international, merely impersonal, and speculative style, it is to be acknowledged that only a certain intellectual elite is aware of the importance of the Independence architectural heritage.

The near absence of buildings from this era on the List of Historical Monuments and Sites of Senegal (last updated in 2007) is enough to alert us to the fact that this unprotected heritage is today in danger, in the face of the increasing weight of speculation.

A striking example is that of the emblematic Hotel Indépendance built in 1978 by the BEHC and architects Depret and Melot. This monumental hotel was covered by an impressive concrete structure made of deeply hooded lids which, in addition to protecting it from the sun and wind, made it a genuine sculpture addressing the symbolic Independence Square facing it.

The hotel, representative of Dakar as home to the many international events it has hosted since its Independence, was thoroughly remodeled after being unoccupied for several years, with all original design features removed. It now houses the offices of the Institut de prévoyance retraite du Sénégal (IPRES).

While the emphasis in the field of African cultural heritage is often more put on traditional or colonial architecture, it is now more than ever a time to take into account what has been done in the wake of the Independence era. In Dakar, as in other metropolises of the continent, this movement gave rise to a period of renewal which, even if it ran out of steam over time, allowed to question the definition of a new architectural identity closer to its context and time and to imagine an ideal inspired by African modernity. It is now our duty to preserve it.

At a time when all eyes are turned towards large international cities such as Dubai, where the architecture of glass and excess represent for many the new benchmarks of modernity, these reflections initiated more than 60 years ago are still relevant. We do have a lot to learn and to draw from this important turning point in our contemporary history if we are to (re)define our own vision of Africanity.



Dakar-Senagal, Leandry JIEUTSA 2022



Cite Keur Gorgui Dakar-Senegal, Leandry JIEUTSA 2022

What would the architecture of African cities look like without western influence?



Interpretation of Afrocentric Architecture, Vincent Tshomba 2020

The reason why European colonialism is at the heart of this research is simply because it provoked the most effective changes. These changes did not just introduce new ways of life, but they also changed the national languages in most parts of Africa.

Over the past two hundred years, there have been significant alterations in the African built environment, and vernacular architecture began to disappear further in villages, making way for urban architecture. There is a feeling that African culture and architecture have become disconnected through colonialism. Vernacular African architecture represented a simple culture that was not very boastful of its riches.

However, as the need for technology grew during the colonial period, the connection between both culture and architecture greatly diminished in favor of Manhattan-like architecture. This is another aspect of colonialism that this research hopes to challenge - whether African vernacular architecture could have stood on its own, without European influence.

It is already known that African architecture, in Ethiopia and Zimbabwe, was a great force in architecture globally, in the early centuries, therefore questioning whether colonialism helped or disturbed the development of African vernacular architecture.

Colonization stands at the heart of what is now a reformed Africa. The reason why colonization had to take place is down to four simple reasons which are economic, humanitarian, prestige, and strategic.

It is important to remember that every single aspect of colonization has hugely influenced the way the rest of the world, and in particular Western culture, perceives Africans and their culture.

Raw materials such as cotton were of great interest to colonists who saw an opportunity to boost their economies. The exploitation of minerals in Africa created extraordinary wealth for colonizing countries. Investors saw an opportunity to make personal fortunes by financing the establishment of the colonies.

Through colonization came slavery, which provided cheap labor and increased profits and consequently boosted the wealth of the colonizer.

The fact that many Africans were enslaved in the process seemed to show that Africans are inferior, and Westerners are superior, and this is a trend that still lingers.

What colonization has done is set a standard of living that is considered normal, and due to poverty, many postcolonial African locations, as well as institutions, do not fit this category, and therefore they are not in the norms of European standards.

Consequently, they fall victim to the inferiority that leads to stereotypes. However, the question stands, do Africans need to live by European standards, or can they be proud of their own heritage?

An essay written by David Washburn further emphasized this view, as he acknowledged the impact of colonization by stating, "To name the world is to 'understand' it, to know it and to have control over it" (David Washburn, 1997) - this was a statement made regarding Europeans being the founders of the name Africa and shows how colonialism insinuates superiority over its colonies. Motsoko Pheko describes the condition of Africa as, "Torn away from his past, propelled into a universe fashioned from outside that suppresses his values, and dumbfounded by a cultural invasion that marginalizes him.

The African is today the deformed image of others." (Motsoko Pheko, 2012). This statement shows that Africans are losing their identity by emulating their colonizers.

By constantly emulating a different culture, one becomes completely dependent on it, and therefore the original history and creativity that should have stood by themselves, are lost. It is this dependence that has allowed westerners to believe that African culture and architecture cannot be sustained on their own.

This is a stereotype that has been passed down for centuries, to believe that Africans are incapable of building an urban, contemporary city without the helping hand of the West and China.

When the West and the Chinese get involved in the construction of African cities, it is not to accommodate the rich culture and existing architecture, it is simply a copy-and-paste design of what is known to be perfect, and that is Western architectural styles.

Architecture in South Africa has been heavily inspired by European ideology and culture. A very good example of this architectural imitation is the town hall building in Cape Town. The town hall in Cape Town represents a great turning point in South African history.

It was on the balcony of this building that Nelson Mandela delivered his first public speech after his release from prison.

There are several aspects of this piece of architecture that show its European roots, and the interesting thing about the design is that none of it reflects South Africa or its people. It is in fact an almost exact copy of any traditional town hall seen in England.

The town hall was built in 1905 by an architectural company called Reid and Green. It is located on the grand parade, which is the main public square in Cape Town, with the railway station within walking distance.

The building was built in the Italian Renaissance style, which is not a style that celebrates South Africa's culture or represents its habitants in any way.

The Renaissance architectural period took place between the 15th and 17th centuries in various European regions, to revive and develop many elements of ancient Greek and Roman culture.

This architectural style was imported to South Africa and does not honor South African Heritage.

It is possible to say that a vast part of Cape Town tells a European story rather than a South African one.

It is therefore not an example of South African architecture, but rather an imposed architectural style that is very different from South Africa's vernacular architecture. An interesting point regarding Cape Town city hall is the way it was designed. Not only is it European-styled architecture, but most of the building's materials, fixtures, and fittings were imported from Europe to give it a completely European feel.

The town hall has thirty-nine impressive bells, which makes it the largest carillon in South Africa. However, these bells were also imported from Loughborough in England by a company called Taylors Bell Foundry which is the largest working bell foundry in the world. This is another aspect of this architecture that shows colonial domination and how it has partly erased South Africa's vernacular identity.

This view is also a view shared by Fassil Demissie, as he says, ***"Colonial architecture and urbanism carved its way through space, ordering and classifying the built environment while projecting the authority of European powers across South Africa in the name of science and progress."*** (Fassil Demissie, n.d.) This quote clearly shows his position regarding the impact of colonization in South Africa.

The West aims to unify Europe and South Africa in a way that only glorifies its superiority in the name of colonialism.



Cape town city hall

The biggest problem with colonization, as already established in this research, is the idea of one being superior to another. However, the biggest issue now remaining is the effect of post-colonization.

Since Westerners have sought to establish their importance and superiority over Africans for years, Africans began to believe in their own inferiority to Europeans (www.newobserveronline.com, 2013).

A personal, four-week observation was carried out in an orphanage in Uganda that emphasizes this theory. In this orphanage, there were eleven white volunteers and one black volunteer.

The interesting thing about this observation was the fact that the children were intrigued by white skin.

Their assumption was that every white volunteer was very wealthy, and as a result, the children began begging for presents on an almost weekly basis. It was no secret that they admired Western culture more than their own.

During an interview with a Ugandan teenager at the orphanage, it became obvious that their biggest dream was to live in Europe and experience European culture.

This observation was crucial as it shows young children idealizing the prospect of being Europeans from an early age. These children dressed and behaved like Westerners, and this is, without doubt, an effect of colonization. Certain Africans, like the children at the orphanage, have accepted the stereotype of having an inferior culture and architecture compared to that of Westerners, and that is a huge problem in need of eradication.

In order to get a different perspective and validity on this issue, a question was passed out to a group of fifty architecture students in Kampala University, in the capital of Uganda.

The questionnaire simply asked the students to write in brief how much impact Western culture has had on their own architectural practice.

One particular response stood out which said, ***"I get my inspiration mostly from previous famous and current European architects because they provide the best contemporary architecture that not many Africans can do, especially here in Uganda."*** This response validates the point raised in the argument, that not only have Africans accepted the stereotypes that brand them as inferior, but they have also accepted that their own architecture is weak compared to Western designs.

This is also a view shared by Tom Burell, as he says in his book, ***"Why, despite our apparent strength, intelligence, and resourcefulness do we continue to lag behind and languish in so many aspects of American life?"*** (Tom Burell 2010, p.13) The same concern is also raised by Oluwaseun Idowu.

In his blog, he says, ***"Our race has been so stigmatized with being inferior that it has affected our mentalities and perceptions about ourselves. We strongly believe that anything foreign is very superior to what we produce or what exists here in the continent."***

(Oluwaseun Idowu, 2013) This quote emphasizes the effect of post-colonialism, and the way it has not only impacted the way Africans are perceived around the world but has also impacted the way Africans see themselves. They believe that their culture and intellectual ability are not to a high standard.

This mentality has given support to the traditional stereotypes that the current, Western generation has in mind when mentioning Africa.

The important thing here for Africans to understand is that Westerners have capitalized on their own culture and did not seek to change it in any way. Instead, they made it appealing and celebrated it on a daily basis.

This is the approach that Africans must take regarding their culture and architecture, which is a heritage to be proud of.



Colonial German buildings in Swakopmund , Alamy

“ What African architecture could look like without western influence? ”

Firstly, it's important to understand the previous great African architecture, and with that understanding, we begin to get a clear picture of what uninterrupted African architecture could look like.

So, this section will briefly study the Kingdom of Aksum now known as Ethiopia as the basis for imagining African futuristic architecture. This section not only seeks to disprove stereotypes and the idea of architectural inferiority but also seeks to show how African architecture could look when we take into consideration what has previously been established.

The results of this chapter should therefore resurrect the confidence that was lost through many years of believing the opposite.

The Kingdom of Aksum which existed approximately between the years 100-940 AD was an important trading nation in an area now known as Northern Ethiopia. Located in the north-eastern portion of Ethiopia, the Kingdom of Aksum sat on a high plateau, 7200 ft above sea level, and during the first century, the Kingdom of Aksum traded actively on the Red Sea coast.

The Kingdom of Aksum began to rapidly rise in the early centuries of its existence by trading its vast agricultural resources, and gold and ivory, throughout the Red Sea network, through the port of Adulis, which was then transported to the Roman Empire.

After becoming the first major empire to convert to Christianity, the Kingdom of Aksum, along with the Roman Empire, became even more powerful, which made it an even more respectable nation in the early centuries.

It has become clear that this African nation was muchly respected, and was seen as an important nation, in contrast to what has been thought of any African nation. Clear that early Aksumite architecture was advanced for its time, and this is a massive contrast to what is known as vernacular African architecture. When talking about vernacular architecture in Africa, it is almost automatic to think of mud huts and straw shelters.

Although it is indeed true that this form of architecture does exist, it is equally important to point out the early modern architecture that was just as good, if not better, than the European architecture of that time.

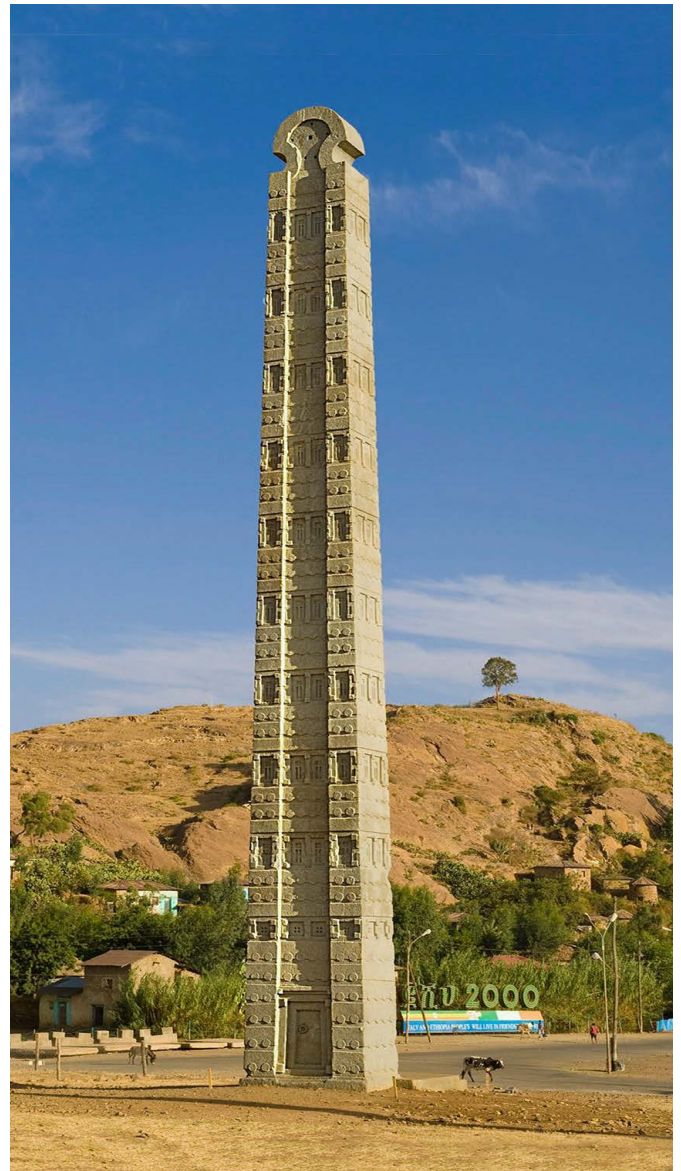
This architecture only begs the question of whether colonialism was the best thing for a country that was already progressing without European influence.

The Kingdom of Aksum presents some fantastic architecture, as supported by Kris Hirst, who says, “in Aksum itself, impressive structures were built,” (Kris Hirst, n.d.).

It is unfortunate that Aksumite architecture is unknown to many people, and as Stuart Munro-Hay mentions in his book, “In most of the recent, general histories of Africa or of the Roman world, Aksum is either not mentioned at all, or is noted in brief summaries culled from earlier works” (Stuart Monru-Hay, 1991 pp.6).

It is evident that the world is not aware of this brilliant, African architecture, which is a problem, because it leaves people with a poor image of European-colonized Africa. With this understanding, let's try to imagine what futuristic African architecture could look like.

The first idea was to imagine a building that would relate to its origins, simply by using clay as a construction method.



Axoum (Éthiopie), Ko Hon Chiu Vincent

This is the same method that was used to build the great mosque of Djenné in Mali, which gave a starting point for reimagining the African architecture of the future.

This method of construction can be seen throughout Africa, especially in most villages. Without Western influence, African architecture would have further developed the use of rammed earth, as it was already the main method in ancient Africa.

The material is known to be environmentally friendly and has a minimal carbon footprint, which is exactly what modern architecture is looking for today.

The material used has greatly influenced the result, which has irregular organic forms that almost mimic the African way of life.

There is nothing regular about pure African architecture, and this design seeks to follow that concept with its irregular forms.

It is obvious that without Western influence, African architecture would have a unique identity, and the cities would be in harmony with nature.

Beautiful architecture is subjective, but identity is as unique as DNA.

This artwork highlights the importance of finding one's identity through architecture. A building can speak for itself and describe its inhabitants with few words.

The question is: can we look at a building and identify its origins? Architecture plays an essential role in how we perceive cultures, and the idea is to reimagine an Africa built with a strong sense of heritage, with the aim of evoking emotions and a sense of joy at the authenticity of the work that can take us all back to our childhood.

So this is what African architecture would look like without Western influence.



Interpretation of Afrocentric Architecture, Vincent Tshomba 2020

It would have its own identity that is undoubtedly recognizable around the world with its organic forms and sense of nature at the heart of every design. Without Western influence, African architecture would not be as generic, with some buildings looking more and more like Western cities.

Ultimately, the best way to describe what African architecture might have been without Western influence, and identity would be more important.

The architecture would be able to stand on its own and represent its people much better than a typical modern skyscraper can. It would contain modern technology, but without the typical materials and design style that can easily confuse an African city with a Western city.

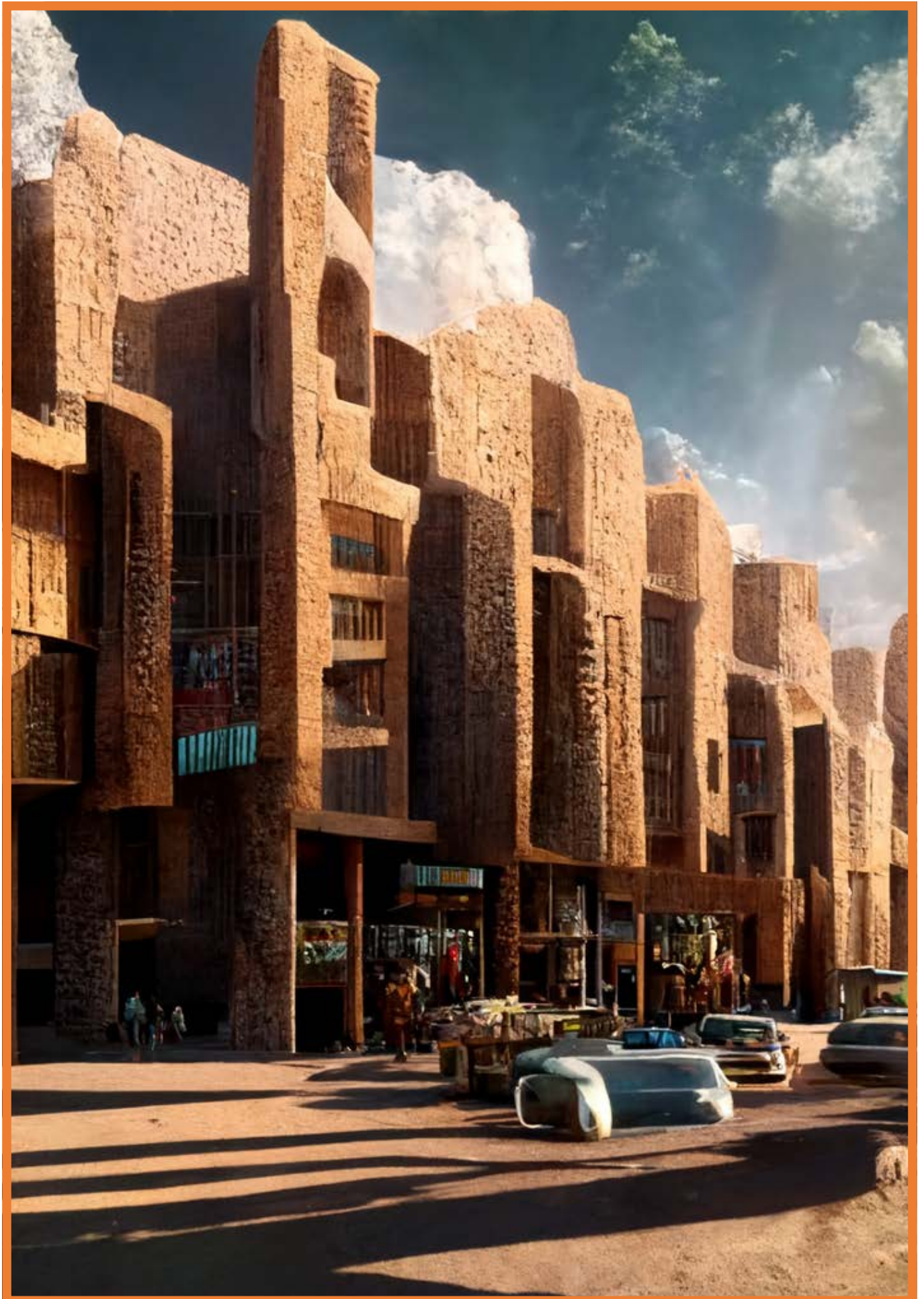
Finally, African architecture will instill a sense of pride that will lead to the creation of other great African architecture.

The purpose of this research was to examine and look at whether colonialism has helped African culture and architecture. In order to achieve this, it was important to look at the impact of colonialism.

This was very significant as the evidence allowed me to analyze some of the problems that came with colonialism. As mentioned already in this Research, colonialism has created a certain type of stereotype against African culture and architecture. This then gave room to tackle these stereotypes and disprove them. So, when we think.



Interpretation of Afrocentric Architecture, Vincent Tshomba 2020



Interpretation of Afrocentric Architecture, Vincent Tshomba 2020

Cities Pixels and Colors





Aqwa, Douala-Cameroon, Leandry JIEUTSA 2022

Tactical urbanism: urban artifacts as a vector of sustainable mobility for better air quality in the city of Yaoundé



A better quality of life in African cities requires the creation of a healthier living environment by rethinking practices, particularly in terms of urban mobility. It is in this optic that the urban artifacts developed by chorus architecture along Kennedy Avenue in Yaoundé, Cameroon, for the Air Quality Week, are part. It is a scenography inspired by local symbols obtained by a contemporary combination of lines or faces in bamboo stems. Bamboo, popular for its properties and its appeal in the mutation towards a sustainable architecture, is presented here as a green alternative, accessible, available and affordable.

More than just urban furniture, the ephemeral installations designed are a reflection of the place.

The urban artifacts were designed for the implementation of a tactical urbanism operation that falls within the framework of the realization of short-term actions of the project of setting up tools to fight against air pollution in the city of Yaoundé.

At the heart of the ecological transition issue, air quality appears as a very important subject for environmental protection.

Setting up a policy in favor of air quality protection must be part of a global dynamic and requires ambitious actions at all levels, in order to guarantee everyone's right to breathe air that is not harmful to their health.

The concept of sustainable mobility includes a reflection on the environment and the issues of sustainable development by rethinking the planning of the territory and the urban space.

The aim is to limit the carbon footprint and reduce territorial inequalities in areas poorly served by transport, by implementing solutions that promote the use of soft mobility.

The air pollution control scheme in this project is organized around the reduction of air emissions caused mainly by road traffic, a major source of nitrogen oxide emissions.

The increase in the use of public transport will ease congestion on the roads and thus reduce the number of pollutants in the air. In downtown Yaoundé, the main public transport modes are cabs and buses.

Encouraging walking would also be a way to improve air quality while being an excellent way to stay in shape, and escape from daily life while respecting the environment.

The choice of the site is not insignificant, the Kennedy Avenue, a mythical place of the capital, is located in the heart of Yaoundé and is a very suitable place for an awareness project because all social strata rub shoulders there.



The objective of the urban artifacts is to contribute to the development of urban spaces favorable to soft mobility while measuring air quality with sensors.

The aim was to close one of the lanes of Kennedy Avenue to vehicles for two weeks in order to encourage the city's inhabitants to walk more and use public transport.

In order to encourage pleasant and effective walking on an avenue of several kilometers such as Kennedy Avenue, it is important to create zones of break, of pause: to create obstacles such as useful urban furniture in order to embellish the walk and make it dynamic.

The urban furniture is therefore both the bearer of a functionalist approach and the vector of a project identity. Public space furniture is nowadays the object of strong qualitative expectations as a real urban development tool. In the very definition of the term "urban furniture" there is a desire for harmonization, homogenization, and belonging: objects that provide a service, that facilitate and embellish the life of the citizens of a city.

However, it seems that urban furniture, when it exists, is too often the product of very specific uses, which does not leave enough room for broader questions about the nature of these uses.

Chorus architecture has therefore designed artifacts as urban furniture in order to provoke questioning, surprise, and curiosity, to experiment with new practices, and to set up new concepts by bringing to question our understanding of reality in order to reintroduce the human in the urban.

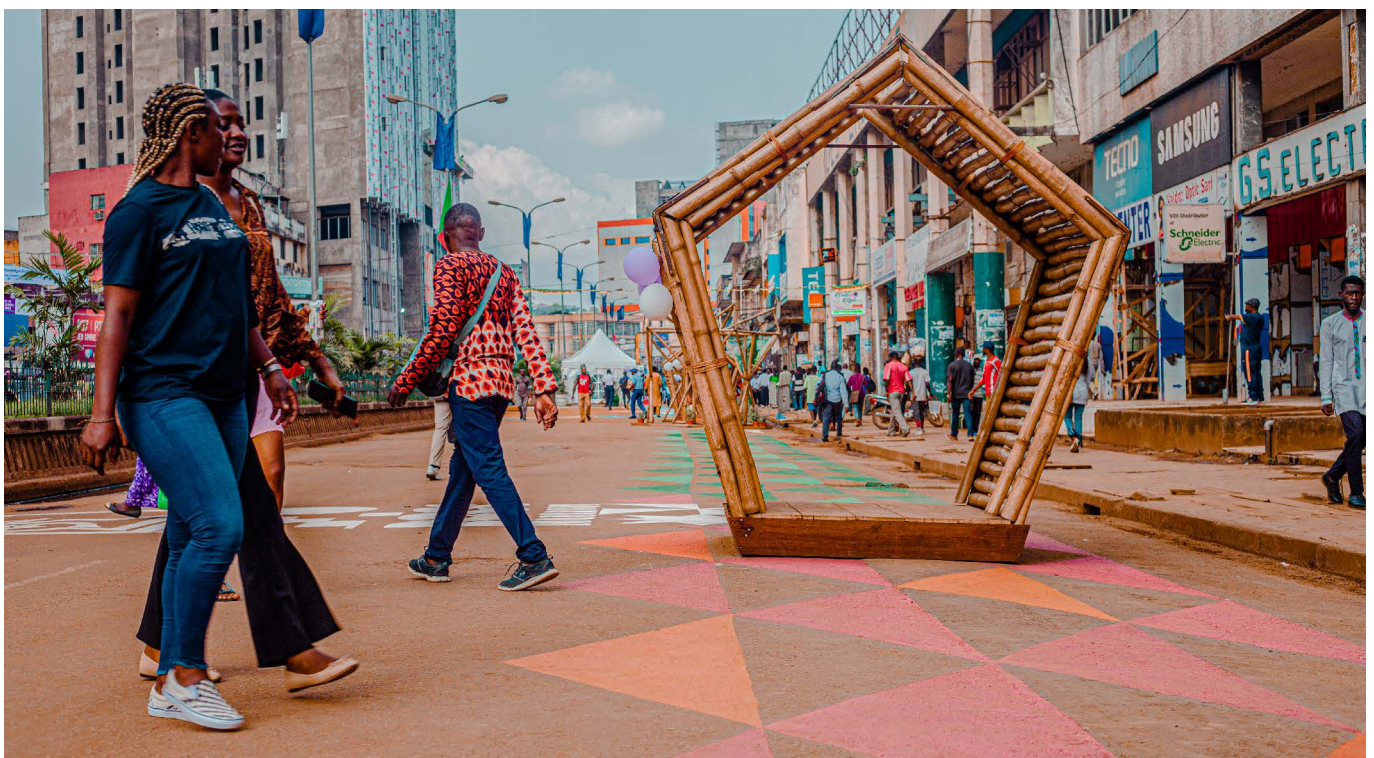
Designed and manufactured locally with bio-sourced materials, these urban artifacts have allowed to development and highlight of local know-how by integrating different types of craftsmen, creating jobs while participating in the protection of the environment. By opting for bamboo furniture, the artifacts combine elegance, originality, and commitment to deforestation from a sustainable development perspective.

Thanks to the sensors installed in the area, it has been clearly demonstrated that the air quality has been significantly improved during these two weeks of study. This allows us to see the impact on the traffic in the city and to reveal the importance and especially the effectiveness of the improvements made.

The attraction generated by the installation of these urban facilities demonstrates the need to reinvent our cities by focusing on the design of details in public spaces.

In addition, urban equipment such as these is a significant added value for municipalities, regardless of their size or importance. While some elements are practical, such as street furniture, many other features can help to make community life more dynamic.

Thinking of sustainable African cities also involves redesigning public spaces, with an emphasis on integrating elements that challenge and communicate. This experience at the Avenue shows that it is possible to use local know-how and local materials to create interesting and environmentally friendly urban furniture.





Num-Urb colloquia: Digital technologies applied to urban development



Several events on the application of digital technologies to urban systems were organized in June 2022 in Dakar.

A round table was organized on June 8th. It set up the political context of the subject, thanks to the intervention of two major institutional players involved daily in the operational and regulatory implementation of urban planning through digital technologies.

Mr. Oumar Sow, Director General of the urban planning and architecture at the Ministère du Renouveau urbain, de l'Habitat et du Cadre de vie and Mr. Alé Badara Sy, Senior Officer, Green City Specialist at the Institut mondial de la croissance verte. The round table was moderated by Dr. Jérôme Chenal.

During the morning of June 9th, EXAF officially awarded prizes for a master's competition called Num-Urb that the center had launched in 2021, in partnership with the EPFL International Affairs department and with the support from the Federal Department of Foreign Affairs of the Swiss Confederation (DFAE).

It was a competition of master's projects dealing with the application of digital technologies in African cities.

The ceremony took place on the premises of the École Supérieure Polytechnique de Dakar - ESP, in the presence of Mr. Andrea Semadeni, Swiss Ambassador in Senegal, Dr. Olivier Küttel, Delegate of the EPFL President for International Affairs, and Prof. Falilou Mbacke Sambe, President of ESP. Finally, the colloquia itself was organized during the afternoon of the 9th of June.



Num-Urb colloquia, Dakar-Senegal, Leandry JIEUTSA 2022



“ Digitalization is the most powerful tool for the smart management of growing African cities. Its development must be a priority in the sustainable development policies of African countries. ”

Dr. Jérôme Chenal, EXAF Center, EPFL, Lausanne, Switzerland

EXAF considers that digitalization is a crucial tool for the efficient management of African cities. In addition, EXAF strongly believes in the potential of the next generation of scientists (in general) and urban planners (in particular) in Africa.

Broadly speaking, the research center draws a lot of inspiration from the innovative ideas brought by students through their master's or PhD work. In this instance, the high-quality presentations given by the three winners of the master competition initiated the abundant reflections that emerged throughout the symposium that was held afterward.

The scientific symposium itself took place on the afternoon of June 9th, 2022 in Dakar.

The aim was to explore new avenues, discuss possible technical solutions to face the challenges of rapid urbanization, and analyze the issues and operational recommendations that could enable African cities to take full advantage of digital technologies inputs.

Moderated by Dr. Jérôme Chenal, three round tables resulted in broad exchanges of ideas carried out by topical and strategic themes.

To foster a constructive discussion between our participants, they were instructed not to prepare a formal presentation. Instead, open and dynamic discussion was the key to allowing the advent of innovative ideas.

The first roundtable brought together Mrs. Gaëlle Gibon, Executive Director of the Agence Francophone de l'Intelligence Artificielle, and Mr. Abdoukhadre Diagne, Chief Operating Officer of Synapsys Conseils to explore the issues related to the infrastructures necessary to the deployment of digital technologies.

Whereas "Africa is also looking towards the stars", the challenges of generating, and using geospatial data for terrestrial applications have been explored, especially for the mobility within the cities with the democratization of internet use and the acceleration of connectivity thanks to the use of space technologies.

New Space technologies have been seen as facilitators to accelerate the continent's digital transition (especially for remote areas not served by IT infrastructures).

The second roundtable brought together Dr. Djibril Diop, CEO of the Think-Tank Observatoire de la nouvelle ville, Mr. Séname Koffi Agbodjinou, anthropologist and architect at l'Africaine d'Architecture, and Mr. Léandry Jieutsa, an urban planner at UN-Habitat. They covered the topic of urban services digitization.



“ My contribution was essential to recall that the modern phenomenon of urbanization has globally produced the shrinking of human relations. Above that, the relationship split of humans to their natural environment seems to be tremendously accelerated by the digital society. ”

Séname Koffi Agbodjinou

Discussions focused on the acceleration of urbanization in African countries, which has resulted in urban planning and development problems that have challenged access to services and housing, especially for the poorest.

For several decades, major international agencies, and especially the World Bank, have developed various technical and financial instruments to support the governmental authorities, the municipalities, and the private sector to improve living conditions in cities.

The third roundtable with the speeches of Mr. Patrick Emmanuel Somy, an urban planner at the Bureau National d'Etudes Techniques et de Développement in Côte d'Ivoire, Mrs. Scarlett Zongo, Director of Cité Branchée in Ouagadougou, and Dr. Seydina Moussa Ndiaye, Program

Director at the Université Virtuelle Sénégal - UVS, allowed to hear testimonies on the land management digitization and urban services in Senegal neighboring countries.

Emphasis was also placed on the issue of training in these innovative technologies. Dakar is tending to become a Tech Hub in West Africa, but other countries in Africa have their own champions too.

For instance, Mrs. Zongo described the activities of Cité Branchée, a young company that combines environmental, urban planning, and sustainable development imperatives while integrating the most innovative digital tools at the service of citizens who contribute to a participatory approach to designing the city of tomorrow in Africa.



Num-Urb colloquia, Dakar-Senegal, EXAF-EPFL 2022

The first roundtable highlighted concerns about the sustainability of employed technologies, which run the risk of being outdated by more efficient, profitable, practical new market stakeholders in a very short-term period.

For instance, will the 5G technology replace optical fiber, or are the two technologies complementary on the market landscape? Public governance was also questioned on the harmonization of IT infrastructures to be developed at a time when multiple competitive solutions are available. In particular, the business and financial interests of the industrial groups deploying their technologies shall not prevail over the well-being of citizens.

The second roundtable identified the urgent need to improve the appropriation by city dwellers of available digital instruments.

The accessibility of urban services could be for instance improved by using 'bottom-up' type approaches.

This type of approach specifically includes the needs of the populations before and during the deployment of technical solutions.

The data protection topic was deeply discussed, to assess how public governance should regulate the use of information collected and how to balance the stakes from the political and economic forces to offer a service to citizens while preventing them from becoming products for advertisers.

In addition, the issue of inclusiveness was raised, as it is imperative that these services benefit everyone.



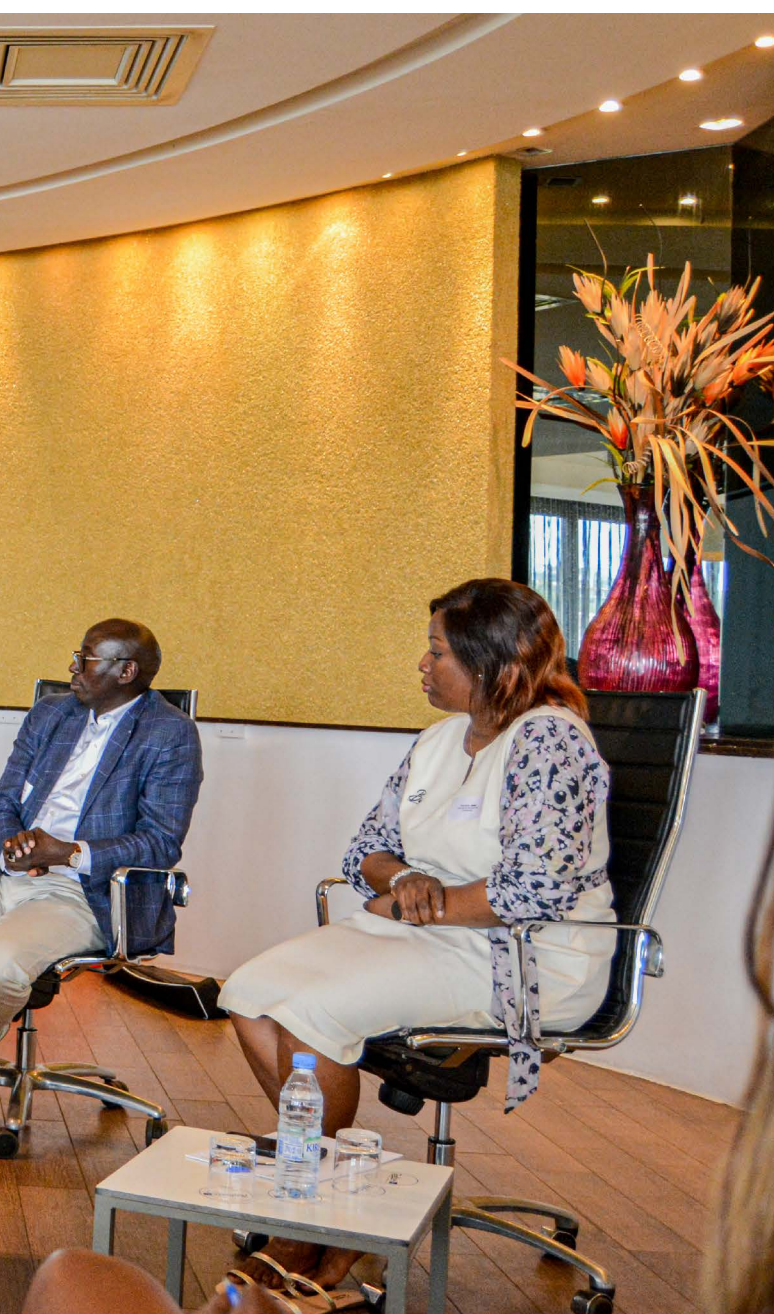
Finally, the third roundtable highlighted that particular attention must be devoted to the legitimacy of new generations in decision-making, for the establishment of various IT infrastructure projects.

It was demonstrated by Dr. Ndiaye that vocational and technical training represents an important springboard in the context of the second phase of the Emerging Senegal Implementation Plan implemented by President Macky Sall. Indeed, it relies on vocational training with the creation of different training centers throughout the country.

The whole challenge is to facilitate the adequacy of training offers and educational content with the most dynamic IT industries meaning infrastructures, telecommunications, energy, agriculture, etc.

The debate also focused on the technical understanding of institutional decision-makers and administrative staff on digital topics.

Are they knowledgeable enough to best support the digital transformation of companies? This is a long-term effort that needs to be framed as well as possible.



Num-Urb colloquia, Dakar-Senegal, EXAF-EPFL 2022



“ As a participant in the symposium, I got relevant feedback from professionals when talking about Deep learning approach applied for drone imagery for real estate tax assessment. These elements raised by the audience were essential to produce a reliable solution for all the countries concerned by the census of unbuilt land and to address other land challenges faced in Africa. ”

Fatima-Ezzahra MOHTICH, 1st price Num-Urb competition

During the two days of roundtables and presentations that took place in Dakar, the participants addressed, with transversal approaches, how digital technologies can be applied to urban and territorial challenges. The main insight was that these potentially powerful technologies also raise certain fundamental concerns.

For instance, the approach to real estate taxation by drones described and analyzed in the master's work of the winner of the Num-Urb competition, Mrs. Fatima – Ezzahra Mohtich is certainly of interest to public administrations. However, not all civil society would agree with the deployment of such a technology for reasons including privacy protection, for instance.

It is obvious that digital technologies can be a tremendous factor in accelerating economic growth, as illustrated by the deployment of New Space technologies mentioned by the 2nd prize of the Num-Urb competition, Mr. Kebe, and by Mrs. Gibon from the Agence Francophone de l'Intelligence Artificielle. There also, certain aspects need to be carefully assessed, for instance, the environmental cost of these technologies, which could lead to rebound effects.

While the potential of the dematerialization of digital technologies is often highlighted, the construction of infrastructures and the associated energy consumption for the operation of digital technologies has a significant environmental cost.

Regarding the optimization of urban services, the study presented by Mr. Willcocks demonstrated how it is possible to make access to health centers in a very fluid manner with optimized routes, suggesting reliable maps of information available to anyone.

As the experts at the symposium pointed out, this modeling makes it possible to envision synergies between municipalities, operators, providers of infrastructures and services as well as citizens.

Correctly supervised to guarantee sufficient data protection, digital tools could then be springboards for better access to technologies with civic participation, for a climate of innovation driven by the stakeholders of the territories themselves, and finally for a better knowledge of the territory of the cities themselves, including informal settlements.

In addition, The question is now: How to supervise these technologies to ensure that they benefit everyone, including the most disadvantaged?



Winners of the Num-urb competition and the Swiss ambassador to Senegal, Dakar-Senegal, EXAF-EPFL 2022



Num-Urb colloquia, Dakar-Senegal, EXAF-EPFL 2022

International symposium on architecture and urbanism: Rethinking today the Congolese city of tomorrow



Lumumbashi, DRC, Leandry JIEUTSA 2022

The theme of this symposium was: Today, rethinking the Congolese city of tomorrow. The aim was to enrich the expertise of future and current local actors in the field of planning and architectural design in a post-conflict zone with high mining potential in the DRC, where architects and urban planners must, in a dynamic territory, think about the built environment and the manufacture of the city in a rapidly developing, multicultural and cosmopolitan society.

Taking mainly into account the demographic growth characteristic of the DRC, the need for correlative planning to ensure the maintenance of the balance of ecosystems and sound environmental protection, the main objective of the international symposium was to promote the improvement of the quality of actors involved in architecture, construction and urban planning in the DRC.

The specific objectives were to bring the professionals of the building and urbanism closer to the consumers by popularizing their services and acts; to prepare and promote the integration of the architects trained at the Higher School of Architecture and Urbanism (ESAU) of the New Horizons University in the business world in the Democratic Republic of Congo, in the Sub-region (SADC-EAC) and the world; Support reflection on the future of Congolese cities with high mining potential in a post-conflict context; support reflection on waste management and the transformation of new materials and the need to use locally available materials with a low carbon footprint; lay the groundwork for the creation of a research center on architecture and urban planning.

With a holistic approach, the symposium featured lectures followed by thematic workshops.



International symposium Lumumbashi, DRC, Leandry JIEUTSA 2022

Since 2016, New Horizons University has been working to provide hands-on training focused on innovation in order to bring bold leaders into the workforce who can sustain progress.

It is to proceed to a state of knowledge and professional practices on the themes of architecture, urbanism, landscapes, tropical environments mutants in a multidisciplinary perspective, but also to respond to the problems of urban pathologies, ecological, socio-cultural, and technological, to identify research questions that can quickly mobilize Congolese research on sensitive objectives, related to the issue of sustainable construction, control of self-urbanization, climate change, and environmental impacts.

It is also a question of better understanding and objectifying what the "tropicality in a post-conflict zone with mining potential" of project practice covers and what

it implies, from the point of view of adapting ways of thinking and doing.

On the occasion of the workshops, it was a question of proceeding to the exhibition of the projects and models of architects and town planners of various horizons.

In addition, as part of the promotion of research, partnerships between scientific institutions have been signed to promote a framework for reflection on regional and local urban issues.

Under the guidance of a moderator, each thematic workshop resulted in a report containing findings, state of play, perspectives, orientations, and recommendations.

The synthesis of the reports of the thematic workshops will constitute the proceedings of the colloquium which will consecrate the new paradigms of management of urbanism, as well as the design of suitable habitats in the Democratic Republic of Congo, in positive interaction with the other countries of the region.



International symposium Lumumbashi, DRC, Leandry JIEUTSA 2022



“ **A private initiative in the heart of the mining and business province of the former Katanga in the Democratic Republic of Congo, it is based on an international standard pedagogical approach. It houses the School of Architecture and Urban Planning, which aims to fill the gap and scarcity of well-trained architects and urban planners capable of meeting the demands of urbanization in Congo.** ”

Alexis M. Takizala co-founder and rector of the New Horizons University.

This impetus could be materialized by the establishment of a research center on architecture and urbanism with a regional vocation as well as the prospects for the perpetuation of the main orientations of the symposium.

A total of 30 communications related to the building and urban planning sector were made by panelists of various profiles, namely building professionals (engineers, architects, urban planners); representatives of civil society (organizations promoting the defense of the rights of indigenous populations, of the mining sector - Federation of Enterprises of the Congo (FEC) - entrepreneurs); representatives of the public administration involved in the sector of urban planning, land tenure, land use planning, mines; local political and administrative authorities; development partners.

It was also noted as the strong participation of students from ESAU/UNH and other universities (public and private) partners, namely the University of Lubumbashi (UNILU) and the Protestant University of Lubumbashi (UPL).

This event allowed me not only to proceed to a state of knowledge and professional practices but also to respond to the problems of urban, ecological, socio-cultural, and technological pathologies.



International symposium Lumumbashi, DRC, Leandry JIEUTSA 2022

In research perspectives, the various presentations during this conference have laid the foundations for the formation of a nursery of builders and architects capable of making a global diagnosis on the issue of global, regional and sub-regional urbanization taking into account the socio-political and economic challenges of the DRC;

Strengthen the supply of highly equipped actors in the materialization of a healthy, resilient and sustainable living environment;

To determine and set the prospective bases for the training of a new generation of architects in a scientific context in perpetual mutation characterized by innovation, in particular digitalization and the emergence of a living environment more and more oriented towards the sedentary virtual;

To fill the deficiency of the activity of the research centers which slows down, reduces, and even annihilates the training of the formative executives (doctoral schools and fundamental research in the field of the building and the urbanism).

“ Planning a resilient city means taking into account historical, demographic, climatic, ecological, topographic, and geological aspects, etc. And to work together with all the actors taking into account the influence of human behavior. ”

Pr. Dr. Ir. Claude Musiteke Yenge, Architect and university professor. Founding member of the Board of Directors of BERCEAU



Lumumbashi, DRC, Leandry JIEUTSA 2022



Lumumbashi-DRC, Google earth 2022

CPDI Africa EXPO 2022: Workshop & Excursion



CPDI Africa EXPO 2022 Wakkis

This CPDI Africa Workshop introduces participants to the concepts for developing new African architectural languages, inspired by the culture and technology of traditional and contemporary African societies. We harness solutions to today's-built environment problems, that are sourced from African science and design philosophies.

The workshop surveys innovations in both the African and Diaspora-built environment, introducing young design professionals and students to the research initiatives of CPDI Africa, using the Art of African Architecture exhibition as a theoretical reference for the workshop outcomes.

The Expo concluded with a tour of Afrocentric built projects in Abuja, FCT, with certificates awarded, PLUS 20 credits in ARCON continued professional development credits – Architects Registration Council of Nigeria.

Highlights included: Workshop & Certificates, Meetings with CPDI Africa instructors, Excursions to Afrocentric Architecture in Abuja, Art of African Architecture Exhibition. The theme for CPDI Africa EXPO 2022 was developed around the need to identify ways of preserving heritage in the African built environment, by sourcing the solutions from indigenous science, technology, and design philosophies.

According to our research, gathered from heritage preservation practitioners, sustainable design professionals, and cultural studies professors in institutions of higher learning, the aesthetically displeasing / lack of affordable housing / poor utilization of design personnel / disharmony in community space / poor functionality of our built spaces, are all due to the lack of an African centered pedagogy taught in our curriculums of architecture, construction and urban planning.

As a result, the CPDI Africa Global Studio for African Centered Architecture, through its live and virtual workshops, has begun to resolve the current crisis, by bringing African centered education to the student and professional via its independently run academic platform.

Defined by what CPDI Africa coins as the 5 Pillars of Afrocentric Architecture: culture, aesthetics, spirituality, materials and community engagement, our students receive insight through these African designed lenses, to counter the crippling Eurocentric curriculums used in built environment faculties and programs, not only in Africa but throughout the Diaspora.



CPDI Africa EXPO 2022 Nike Art Gallery



“ The CPDI Africa EXPO 2022 Workshop and Excursion builds upon our organizations vision to research, develop and preserve African architectural languages, that are culturally and environmentally sustainable. The EXPO welcomed young architects and students of the allied built environment professions to engage in the development of this pedagogy, and experience firsthand various built projects developed with these African design principals. The Community Planning & Design Initiative – CPDI Africa - was launched in 2014, to host African architecture competitions, Afrocentric design internships and certificate programs. ”

Nmadili Okwumabua, Founder, Director CPDI Africa Global Studio for African Centered Architecture

CPDI Africa identified that the result of a lack of inward facing curriculums, universities in Africa, graduate design professionals that have spent the better part of their educational career, imbibing knowledge of the built environment developed by and for people in cultures and geographical locations outside of African spaces.

These ideologies, materials, aesthetics, professional processes, and regulations are then replicated and practiced throughout Africa, creating built landscapes that are dysfunctional for the people they are built for.

They create problems never experienced before on the continent, that require yet another foray into seeking solutions from Eurocentric pedagogy and practices, that further compound the already failing system.

The cycle repeats itself, leaving both the end user and the design professional without comfortable, affordable spaces built, and lack of employment for the local labor force.

The workshops were suited towards exposing how the students could use the CPDI Africa 5 Pillars of Afrocentric Architecture, to solve real issues in the environment, thereby improving on how they propose real solutions, via their design briefs in school and in professional practice.

If Afrocentric architecture does not provide solutions to the people's problem, then it is irrelevant, offers zero value to the community.



For instance, the first pillar: culture. Students were asked to list some of the top problems they have with the way our homes are designed, or their communities were master planned.

For Aesthetics, they were to list some of the unpleasant ways our buildings look, in terms of beauty, finishing, maintenance, the feeling they evoke visually.

For spirituality, they were to identify some challenges they have with how faith-based practices impact the built environment, or how special sensitivities to religious practices were not being met in public spaces.

For Materials, they listed some of the top issues they had with the type of materials, ease of use and cost of materials, and the negative impact on health and housing accessibility.

And finally for community engagement, they articulated some of the ways they felt the community has been disengaged from participating in providing a safe, clean,

affordable, creative neighborhood. For the exercise, they were to select one built environment listed and provide an African inspired solution, using either an example from their own cultural heritage, or from any other source from within the African Diaspora.

Keynote lectures, group and individual activities were guided by CPDI Africa founder Nmadili Okwumbua, the event Partners and CPDI Africa team of cultural architects.

The CPDI Africa EXPO Workshop and Excursion hosted 45 delegates and students from private architecture practices, universities throughout Nigeria, as well as the University of Amsterdam. Keynote lectures, individual and group workshop exercises were conducted, and the field trips to five Nigerian inspired built projects were completed. The educational content was innovative in its problem-solving approach.



CPDI Africa EXPO 2022 Mambaah 1



“ The CPDI Africa EXPO was a not only a life changing but also a soul unravelling experience for me. Walking around different spaces that reflected the culture, tradition, aesthetics and spirituality of my people, helped me fully understand my existence as a native within the ‘Nigeria environment’. For the first time in a long time, I felt excited for the future of Nigeria’s Architecture. The EXPO rekindled my passion to retell the stories of my people through Architecture... ”

Salimat Yewande Bakare, Eastern Mediterranean University



“ The CPDI Africa EXPO was nourishing – it was nourishing sharing a space with young likeminded individuals so keen on absorbing knowledge on our roots. We were re-thinking and imagining our built environment in a way that called the past into our now, and the future into our present. I felt the power of what it means to say “this is possible, we can do this, we can do this now!”. I felt nourished at the prospect of a Beautifully designed Nigeria; the workshop highlighted the very collectivity and individuality of such a dream. ”

Chimira Obiefule, University of Amsterdam, Netherlands

The important takeaways from the two-day exercise were the feedback from the delegates and students, speaking on how they will incorporate this research and way of thinking about architecture and urban design, into their individual projects. Their testimonials begin to show how they will use this knowledge to tackle heritage preservation, environmental protection and sustainable development from African centered perspectives. The most critical areas highlighted by the students was the improvement made in sacred spaces, and the cost saving implications of using locally sourced, standardized building materials.

We will continue to host internships, workshops and excursions that bring this pedagogy to a larger audience, moving the sites to countries around Africa and the diaspora. Providing the Certificates in Afrocentric Architecture also helps to validate the scholarship, as we continue to promote its inclusion in the curriculums in our major architecture programs Africa wide.



“ CPDI Africa Expo '22 was probably the most exciting event I have attended this year, it was not just fun but educative as well, and an eye opener. Seeing a lot of architects or rather Afrocentric architects come together to discuss deep issues in the industry and how best to implement these discuss in our designs was probably the best part of the event. The community is growing, and I am glad to be part of it, 5yrs from now the community will be so large that one would wish he had joined sooner, I am certain of this. We just have to be true to ourselves, because Afrocentric Architecture lives in sincerity, and this expo has made me realize that. ”

Ikechukwu Godspower, University of Nigeria, Nuskka



CPDI Africa EXPO 2022 Greenhouse

Kinshasa International Real Estate, Architecture & Interior Design Fair



At first in the DRC, the entire construction ecosystem and several major players in the industry met at the Pullman Hotel in Kinshasa for 2 days to rethink, promote investment and real estate excellence in the country.

The first day served as a framework to promote a responsible construction policy. For the panelists, it was a question of advocating for an eco-construction in which real estate operators take the environment into account. The second day is an extension of the reflection, because it put on the table, the role played by the facilitation bodies which put in relation, the financing policies in force and the investors in the sector of the real estate and the housing in the DRC.

It therefore seems obvious that the increase in the number of cities in the DRC, following the demographic boom that the country is experiencing, offers new investment opportunities.

These are also accompanied by environmental challenges that require the urgent mobilization of significant financial resources.

To this end, it then becomes essential to establish a synergy between all the stakeholders (public authorities, private sector, civil society, multilateral partners, etc.) in order to achieve a dedensification of large cities and a harmonious development of the whole National territory.



10 major resolutions came out of these 02 days

- 1. Involvement of the Congolese State** as a regulatory and supervisory body for the Real Estate and Housing sector as well as that of other employers' organizations such as the Federation of Enterprises of Congo, through reforms of texts and other legal instruments, at the forefront of ecological and technological innovation.
- 2. Develop and adapt each urban plan** to the realities of each city.
- 3. Improve the business climate** to support investors' access to the real estate market in the DRC, in particular through the regular provision of useful and up-to-date information on the sector; the creation of financial supports such as participatory financing funds and the revision of the conditions for granting loans by commercial banks.
- 4. Sanitation of the administration of the real estate and housing sector**, in order to provide the sector with qualified respondents who are able to work in harmony with the National Order of Architects.
- 5. Advocacy with decision-makers** for the implementation of a national green building policy that takes into account the new ecological standards in the real estate and housing sector for sustainable and viable construction.
- 6. Dissemination of the different funding methods & programs** by connecting investors and financial facilitators in frameworks for exchanging experiences adapted to market demand.
- 7. Pruning texts that govern the land sector in the DRC**, legal loopholes that reinforce the conflict of interest between the public and the private sector in land use planning in the DRC.
- 8. The construction of cities and investment opportunities** in real estate must take into account the dedensification of cities.
- 9. Urban plans** must be associated with the generative economy that ensures the identity of the environment.
- 10. Integrating biodiversity** into the reconstruction of cities in the DRC in order to promote responsible eco-construction.



Panel on rethinking Congolese cities



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Finance Your Cities: financing and investing for a resilient, sustainable and just urban development



Finance Your Cities is the high-level conference organized by FMDV on urban development financing. This first edition is labeled by FICS, the Finance in Common summit - a two-day event designed by and for more than 500 public development banks worldwide, and placed under the high patronage of the Ivorian authorities and the West African Economic and Monetary Union, with the support of many technical and financial partners.

Finance Your Cities brings together the entire ecosystem of actors involved in financing the urban transition; a dozen African ministers in charge of urban finance, mayors, public development banks, United Nations agencies, private investors ... around three high-level forums: the policy and strategy forum, the solutions forum and the action forum.

The objective is to produce a roadmap based on the most innovative and effective solutions brought by all these actors to accelerate the financing of sustainable cities in order to make a major contribution to the COP27 and the UN agenda in 2023, in particular on the Sustainable Development Goals.

FMDV wanted to be present in Abidjan for the 3rd edition of the Finance In Common Summit (FICS), which brings together 500 public development banks committed to financing global agendas at the invitation of the AfDB and the EIB.



Speech by the President of the African Development Bank, Finance Your cities, 2022

The first is a Subnational Development Banks Alliance in Latin America, which since its launch in April 2021 has shown very positive results in strengthening cooperation and transactions between these banks, the multilateral and bilateral banks that finance them, and the local governments that are the ultimate beneficiaries for financing their urban projects.

The second is the launch of an African Alliance based on the same model.

The third is a thematic coalition that brings together public development banks of all sizes worldwide that finance cities and sustainable urban development.

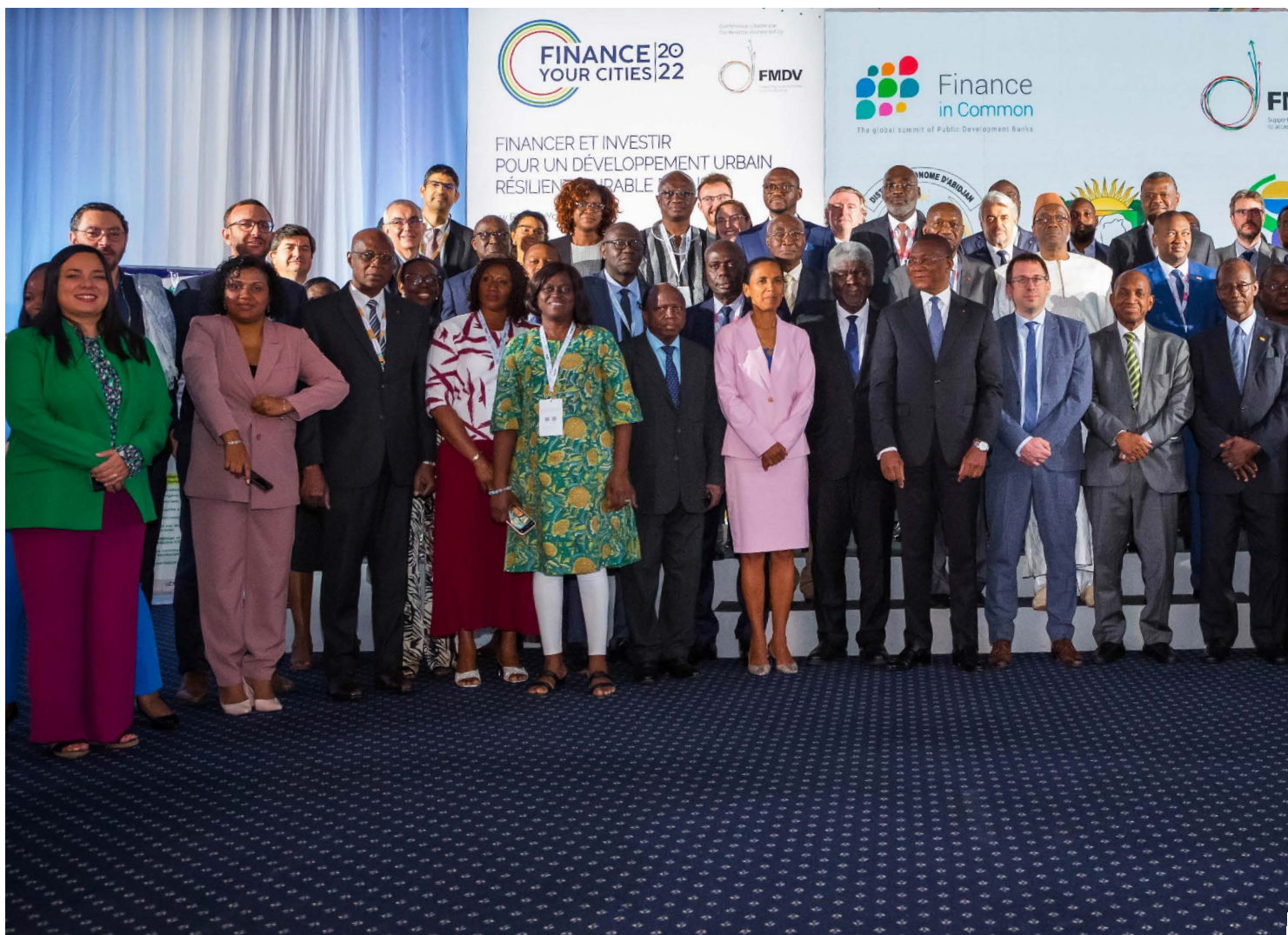
At the same time, FMDV wanted to partner with the Ivorian Ministry of Construction (MCLU), Bruno Koné, to launch the Alliance of African Ministers for Urban Finance with other partners, including UN Habitat. other partners, including UN-Habitat, to launch the Alliance of African Urban Ministers for Financing.

Indeed, the stakes are high: developing and emerging countries are facing rapid urbanization.

By 2050, 2.5 billion more people will settle in cities, 90% of them in Asia and Africa. This growth will create a massive demand for infrastructures, mainly in secondary cities and urban areas that do not exist yet.

This rapid urban growth offers both unprecedented risks and opportunities for the global response to development and climate change challenges. On the other hand, urbanized countries face the challenge of renewing urban infrastructures to provide high quality and climate friendly public services, as they are historically responsible for most of the GHG emissions.

Cities account for at least 58% of global GHG emissions and 21% of GHG abatement options. They are at the core of a transition to low-energy, low-carbon and more inclusive models of society. Hence, sustainable urbanization and SDG #11 represents a key entry point to accelerate structural changes. Urban resilience in particular is related to the capacity of a city's systems, businesses, institutions, communities, and individuals to survive, adapt, and grow, no matter what chronic stresses and acute shocks they experience.





“ Finance Your Cities, the alliance of African ministers, the resilient cities coalition led by the GFCD are major steps forward major advances to respond as quickly as possible to the climate emergency in cities. ”

Paul Simondon, Deputy Finance Minister, Paris City Council, co-President of GFCD

This is why FMDV has been working closely with the members of the Finance en Commun movement for the past three years; the aim is to create and facilitate spaces, mechanisms and initiatives in favor of sub-national finance and development, such as the Alliance of subnational development banks, which has been developing in Latin America and the Caribbean region for over a year.

This is also the reason why FMVD wanted to seize the opportunity of the FICS being held in Abidjan in October 2022 to launch a similar initiative in Africa, as well as a Coalition of Resilient Cities and Regions.

Among the goals sought; increase and strengthen financing for a just and sustainable urban transition as well as subnational investments for cities and regions... or those of bridging the subnational financial gap and financing a resilient urban transition, which is a prerequisite to reach the 2030 Agenda and the goals of the Paris Agreement.



Photo de famille, Finance Your cities, 2022



“ The Finance Your Cities Conference is a new paradigm in the relationship between cities, ministers and donors on financing. See you in a year to share the progress of the action. ”

Robert Beugré Mambé, Governor of Abidjan, co-CEO FMDV

FMDV is dedicated to helping territories provide their citizens with a resilient, sustainable, and just urban living environment. The chain of decision-makers for financing and investing in such development is extremely diverse. So are the motivations and capacities of the actors.

The development of policies, mechanisms and partnerships to unlock and accelerate and accelerate sub-national financing ultimately serves the development of territories and development of territories and access to an improved living environment in all its access to quality and climate-friendly urban services, access to economic services, access to economic opportunities, social inclusion, environmental protection social inclusion, environmental protection, etc.

For this reason, the FMDV team and its financial and technical partners are multiplying opportunities for multi-actor partnerships.

The aim here is to encourage closer ties and cooperation between key players, high-level decision-makers and local players, in a spirit of co construction and direct connection with the needs of the people directly concerned, the primary beneficiaries of the policies deployed.

It is also in a spirit of sustainability, inclusion and equity that the international network supports cities and regions in their actions to fight poverty and mitigate and adapt to climate change.

This, in a spirit of full alignment with the Sustainable Development Goals; the 11th, (Make cities and human settlements inclusive, safe, resilient and sustainable) of course and all the others, which are connected, such as the SDG 1 (no poverty), the SDG7 (clean and affordable energy) ; SDG10 (reducing inequalities); 13 (climate action); or 17 (partnerships for the goals), all of which are fully consistent with the activities undertaken by FMDV at this Finance in Common Conference.

Finally, it is with an approach that is largely focused on impact, towards action, that FMDV and its partners are working towards scaling up, capacity building... transforming public resources into concrete projects, ensuring a green and just transition - on the ground, in the long term.



Signature of memorandum of understanding between the FMDV, the Ministry of Construction and the UNDP during the Finance Your Cities conference in Abidjan, 2022



Speech by the Ivorian Minister for Housing and Town Planning Construction, Finance Your cities, 2022

AIN team

Africa Innovation Network brings together experts in diverse and varied fields to offer sustainable and innovative solutions for a better urban future in Africa. We are a think tank developing new approaches for more inclusive, resilient, and sustainable cities in Africa. We develop initiatives, projects, programs, and materials to support cities to move forward to more sustainable human settlements.

Our work is based on creativity and innovation to propose solutions that help to build a better future in our cities for all. Initiatives of Africa Innovation Network are made to analyze, understand and develop solutions in order to promote sustainable development in our cities.



Leandry JIEUTSA

Urban planner

Founder & Executive Director



Mohamed AMINE LOUKILI

Architect

Member



Hind REZOUK

Architect

Executive Secretary



Joel Mukalay KINE MUKENA

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Rajae HAISSOUSS

Architect

Member



Corianne RICE

City Innovation Program Specialist

Executive Member & Project manager



Irina GBAGUIDI

Junior consultant in urban policies

Member

Authors and Contributors



Leandry JIEUTSA

Leandry is a Cameroonian urban planner with a major focus on promoting smart cities that build on the local context for people-centered smart cities. Amateur photographer and graphic designer in his spare time, he is passionate about innovative approaches to make cities inclusive and sustainable living spaces. It is in this sense that he initiated Africa Innovation Network in order to co-construct models of thought, paradigm and ideologies and know-how for African cities that place the human being at the center.



Hind REZOUK

Hind is a Moroccan Architect, urban planner with a DPEA degree from the architecture and landscape school of Bordeaux, France. She is the Executive Secretary of Africa Innovation network. She is passionate about questions of sustainability, resilience, and the importance of the architectural /urban heritage in Africa, As well as participatory projects in urban design and architecture, where the people are the principal actors and the community organizers, serve as facilitators to develop local projects.



Jean-François Habeau

He is a graduate of the Institute of International and Strategic Relations (IRIS) in Paris. With 17 years of experience in consulting support to governments and local authorities, he has a recognized experience and expertise in local finance, financial decentralization, urban investment strategies as well as public-private partnerships, climate finance, and urban innovations. Prior to joining the FMDV in 2010, he worked at the Commune of Antananarivo in Madagascar where he directed the Institut des Métiers de la Ville and was the advisor to the mayor (the current President of the Republic, H.E. Andry Rajoelina) on urban policies and international relations.

Through his activities, he has acquired solid experience in working with public institutions, donors, and public and private technical and financial partners to facilitate the link between the needs and opportunities of urban development financing. He has contributed to the mobilization of more than one billion euros for urban transition, the drafting of national policies for ministries, the formulation of resolutions adopted by the United Nations in the global agendas, and the drafting of reference publications in the urban and financial sectors.



Kweku Koranteng

Kweku is a development practitioner and researcher at ICLEI Africa, working in urban development, digital innovation and renewable energy technologies. His specific focus is on advancing the socio-economic and political debates anchored in these spaces. He has worked with and collaborated with research teams across the continent, particularly Nigeria, Sierra Leone, Kenya, South Africa, Zambia, Uganda, Zimbabwe and Ghana. He is currently leading and supporting uptake research in four African cities as part of the continent-wide, multi-partner project African Cities Research Consortium (ACRC).



Franck HEUDJEU

Franck Heudjeu is an Urban Manager by training with a certification in project management. He has professional experience in various sectors related to the development of cities in Africa. This has enabled him to work for several international organizations on climate change projects, notably with the United Nations in Cameroon, and to develop MOOCs in collaboration with the AFD and IFDD. In addition, he has worked in consultancies, urban think tanks in Africa and private firms specializing in urban planning and development; on projects of housing policy, practice and financing; development of urban planning documents; action plan for climate change and environmental management.



Sina Schlimmer

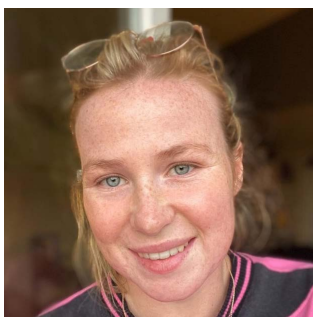
Sina Schlimmer is a Research Fellow at the French Institute of International Relations - Ifri's Sub-Saharan Africa Center, where she coordinates the research programme "Governing the Urban Transitions in Sub-Saharan Africa". She has a genuine interest in the challenges of governing cities and in land issues.

After completing her PhD thesis in political science, which focused on large-scale land acquisitions in Tanzania she specialized on urban land markets during a post-doc at Sciences Po Bordeaux. As a consultant at UN-Habitat in Nairobi in Kenya, she developed an expertise in the socio-economic dynamics of rapidly growing cities in Africa. Sina has undertaken several field studies in Benin, Kenya, Senegal and Tanzania.



Florent Chiappero

He is one of the co founder of the collective of architects named Collectif Etc, and worked with them on public space projects all around France and Europe for almost 10 years. He is now dedicated to the creative Studio Bainem and worked for the last two years in Senegal on the Urban Fabric Initiative of Dakar. At the same time he is a member of urbaMonde, and engaged on the global program of Urban Initiative Fabric.



Sarah Lecourt

Sarah Lecourt is an urban planner who has a master's degree in Urban Services Engineering in «developing cities» from Sciences Po Rennes. She is project manager at Gret (French NGO) and has been based in Dakar, Senegal, for three years. She is passionate about community-driven, participatory and sustainable projects. She is interested in issues surrounding the Right to the city and the co-production of cities. In the different projects she leads, she is driven by the desire to put users and inhabitants at the heart of the design, conception and management of the cities, in tandem with other stakeholders such as public authorities or private actors. She has been coordinating the facilitation of the Urban fabric initiatives programme since January.



Vincent BADIE

Urban planner, graduated from the Ecole Africaine des Métiers de l'Urbanisme et de l'Architecture of Lo-mé (Togo) in 1994, Vincent started his professional career in 1995 at the Bureau National d'Études Techniques et de Développement (BNETD) as a research officer in urban planning. He has more than 25 years of experience in the field of urban planning and development at the national and international levels with a project portfolio ranging from urban planning to local urban development operations.



Bea Varnai

Bea Varnai has a cross-disciplinary education with a Master degree in international development. Passionate about community-led development and collaborative approaches, she has specialized in sustainable urban development, civic participation, social and financial engineering of urban projects and multi-actor consultation.

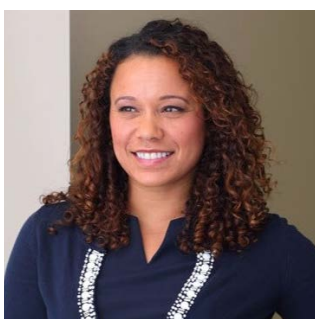
Since 2013, Bea has supported citizen initiatives, public policies, projects and studies in a number of fields, including affordable housing, informal settlement and home upgrading, participatory urban planning and design, climate change adaptation in Africa (Senegal, Burkina Faso, Ivory Coast, Kenya), Central America (Nicaragua) and South America (Peru, Brazil) and in Eastern and South-Eastern Europe.

Bea worked in various positions in the non-profit sector and in close collaboration with local communities. In addition to her hands-on and field experiences, she has contributed to case and feasibility studies, research & development projects and publications, which were implemented in collaboration with academic and professional networks, local authorities and grass-roots alliances.



Sébastien Goethals

Sébastien Goethals is urban planner and architect, with over 15 years of experience in sustainable urban mobility in African and Asian cities. He is the founder and director of Citilinks, where he focuses on holistic solutions for better urban environments, he connects the dots between smart city tools, people-centered design, planning, nature based solutions and investment strategies for smarter and healthier African cities. He worked on the urban transport master plan of Conakry from 2017 to 2019 for Louis Berger International as a team leader. He currently works on urban mobility issues and TOD in Antananarivo, Kinshasa, Niamey, Cotonou and Douala.



Corianne Rice

Corianne Rice is the Program Director for City Inclusive Entrepreneurship (CIE) at the National League of Cities. At NLC, Cori oversees operations of the year-long CIE program, which helps city leaders build more inclusive economies with a particular emphasis on racial and gender equity. Prior to joining NLC, Cori worked in financial services, where she developed and delivered be-spoke trainings and workshops for client-facing personnel across the Americas, Europe, Asia, and Australia. She is an executive board member of Africa Innovation Network, which convenes various experts to offer sustainable solutions to complex urbanization problems across the continent. Cori's startup experience includes leading a fellowship for Hometeam Ventures, where she managed the research, deal flow and diligence processes of early-stage construction startups, as well as advocate relations at Civex, a fintech startup whose mission is to increase shareholder engagement in corporate governance.



Stéphanie Wattlelos Rutily

Stéphanie Wattlelos Rutily is an urban planner and responsible for educational projects built around engaging methodologies, based on the mixing of knowledge and the animation of collective intelligence within the AFD Campus, an entity of the Agence française de développement group dedicated to the training of development actors.



Insaf Ben Othmane

Insaf Ben Othmane is an architect/urban strategist, founder of Æcumene Studio, specialized in the development of popular neighborhoods, integrated urban development and community development strategies in the MENA zone and Africa.



Grace GITHIRI

Grace Githiri manages UN-Habitat's Urban-Rural Linkages Program overseeing the work on Ur-ban-Rural Linkages: Guiding Principles, SMART Villages, Food Systems and Nutrition, and Small and Intermediary Cities Ms. Githiri coordinates the development of capacity building tools and events, advocacy, forming new partnerships and providing project technical support to Member States. Ms. Githiri also supports the National Urban Policies Program on thematic areas including health, migration and their intersection with legislation and governance. Prior to joining UN-Habitat, Ms. Githiri worked for Slum Dwellers International (SDI) as a program officer in Kenya where she led community trainings, informal settlements spatial planning, mapping, project management and research, and co-authored several papers on food security in Nairobi's informal settlements. Ms. Githiri holds a Masters degree in Sustainable Urban Development with a focus on Food Security and Nutrition from the University of Nairobi. She is fluent in Kiswahili and English and can be reached at grace.githiri@un.org



Inès Diurtionnel NGOUANOM KENGNE

Inès Diurtionnel Ngouanom supports the Policy, Legislation and Governance Section as Project Officer in the implementation the project "Leaving No Place Behind – Strengthening Urban-Rural Linkages in selected countries in Africa" and other related projects in Cameroon. Before joining UN-Habitat, Ms. Ngouanom worked with Mission d'Aménagement et d'Équipement des Terrains Urbains et Ruraux (MAETUR) as consultant and at GEFA & ENGINEERING, where she participated in elaboration of urban planning documents of several municipalities in Cameroon. Ms. Ngouanom, holds a Masters degree in Urban Planning from the African School of Architecture and Urban Planning (EAMAU) in Lomé-Togo. She is authored of a paper in innovative solutions imagined by city dwellers who wish to respond to major urban challenges. She is a member of the National Order of Urban Planners of Cameroon (ONUC n°76). Ms. Ngouanom is fluent in French and English and can be reached at ngouanom.kengne@un.org



Tarik ZOUBDI

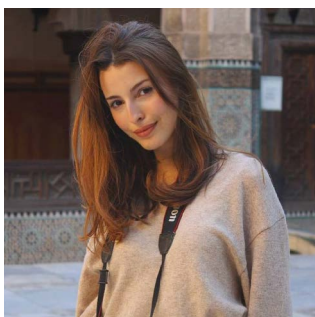
Tarik ZOUBDI was graduated from the National School of Architecture in Rabat in 2006. He founded TZA workshop In 2008, and has been awarded several times in Morocco and abroad. Especially the jury and public prize in «Architizer A + Award 2018», and the «Arab Architects Awards 2018» in Beirut. Moreover «Middle East Architects Award» in Dubai, as well as the «Golden A' design Award» in Italy. His project «Wall of Knowledge» Was longlisted for «Aga Khan Architecture Award 2019». he also joined the technical reviewers team for «Abdullatif Al Fozan Award for Mosque Architecture» in 2019. His architectural studio was selected as one of the top 4 architectural firms in Africa by the «Architizer 2021 A+Firm Awards» jury.



Antonio KIPYEGON

Antonio Kipyegon supports UN-Habitat's Policy, Legislation and Governance Section in the areas of Section's research, resource mobilization, monitoring, and reporting efforts in implementing UN-Habitat's Strategic Plan 2020-2023. He has led preparation of the Section's Annual Report for 2020 and 2021.

Prior to joining the PLGS, Mr. Kipyegon worked for the Strategic Monitoring and Reporting Unit within UN-Habitat as a monitoring and reporting consultant and supported the development of tools and guidelines to collate programme performance information, conduct indicator data analysis, and compiled normative tools and knowledge products and drafted impact stories which supported the preparation of the 2020 Work Programme, and the 2018 and 2019 UN-Habitat Annual Reports. Mr. Kipyegon holds a Masters degree in Business Administration majoring in Strategic Management at the United States International University-Africa (USIU) in Kenya. He is fluent in English and Kiswahili and can be reached at antonio.kipyegon@un.org.



Rajae HAISOUSS

Rajae is currently a final year student at the National School of Architecture in Rabat and Program Assistant at the UN-Habitat office in Morocco. She is the 3rd prize winner of My African Competition and a finalist of the Neoasis Design Challenge for which her project was exhibited in the Australian Pavilion at Dubai Expo 2021. Rajae defines herself as a young architect committed to a global society, believing in the power of architecture and urbanism as an engine of development in every society.



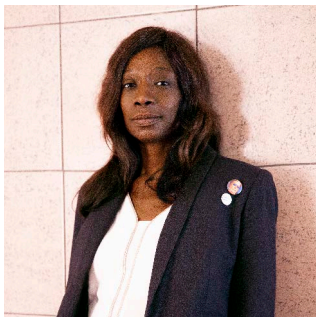
Joel Mukalay Kime Mukena

Joel Mukalay, born in Likasi, D.C. Congo, and member of African Innovation Network (AIN) since 2020, is an architect at NAMS Birojs (Latvia), one of the leading design companies in Latvia founded in 1992 and specialized in design and project management, development of detailed plans and local plans, territorial planning, road design, transport solutions, landscaping, preparation of development proposals.



Vincent Tshomba

Vincent is a Congolese born Architectural 3D Artist and interior Designer. After moving to the UK at the age of 9, his passion for art led him to work as a portrait artist in his teenage years. While he loved art, he was not sure which type of art will give me the most joy, so he began to experiment with different forms of art, from painting to drawings cartoons. But it wasn't until he began to play sims that he realised this could be a full-time career, so he decided to study interior design. After being accepted at Leeds Art University, he found himself enjoying the 3D side of the course more than any other aspect of the design world. So, he walked into a 3D practice asking for work experience, and after enjoying his time so much at the work experience, it became clear to him, that he wanted to become a 3D Artist who combines design and imagination. he now run a small practice called Viz-motion, which provide 3D design services but with a touch of an interior designer.



Françoise N'Thépe

Born in Douala, Cameroon, Françoise N'Thépe has lived in Paris since 1975, and been working as an architect for the last twenty years. She graduated from Paris's Ecole Spéciale d'Architecture in 1999. In 2000 she began a collaboration with the architect Aldric Beckmann, with whom she went on to found Beckmann-N'Thépe Architects. The two worked together until 2017. In 2018, with a significant amount of experience and prize-winning work under her belt, Françoise N'Thépe decided to set up her own agency, FRANÇOISE N'THÉPÉ ARCHITECTURE & DESIGN. Strongly aware that architecture draws on every aspect of experience, Françoise N'Thépe is committed to reevaluating what it means to be a female architect with diverse origins.

With her well-established professional expertise and many years of experience, having worked on the design and construction of many major projects, Françoise N'Thépe is now keen to turn her skills and experience to international projects. She has written numerous articles, been profiled in documentaries, contributed to books, mounted exhibitions, and given multiple lectures, and her work has been awarded with several prestigious prizes and distinctions, all evidence of the fact that the actions and reflections that inspire her have a much broader and more significant scope than being merely about constructing buildings. Her inspirations range from contemporary art and design to scenography and literature. Françoise N'Thépe is particularly committed to the notion of transmission: the transmission of the value of steadfast commitment to others, and the transmission of individual creative qualities alongside knowledge and expertise. Her greatest satisfaction comes from witnessing the delight and gratitude inspired by her projects.



Nmadili Okwumabua

Nmadili Okwumabua is a Professor of African Architecture and Urban Design and the founder of the Community Planning and Design Initiative Africa (CPDI Africa). Her passion for design is rooted in a vision where communities in Africa and the Diaspora are developed with new architectural languages that are Culturally and are Environmentally Sustainable. Nmadili attended the University of Tennessee and Georgia State University, where she pursued her undergraduate studies in architecture and urban studies. She holds a master's degree in African Studies from Clark Atlanta University, where her research centered on the evolution of Nigerian modern vernacular architecture in the works of Master builder Demas Nwoko. She is a licensed Realtor in the state of Georgia and Certified Property Manager with Broll CBRE South Africa. In 1999, she founded Southern Sahara USA, a design consultancy service specializing in the research and development of this new architecture. In 2013, she launched CPDI Africa, the culture-inspired initiative that promotes these new architectural languages through design competitions, lecture series, workshops, architecture exhibitions and international global studios for teaching African centered architecture. Cultivating a built environment career that has spanned over 25 years, Nmadili Okwumabua lives in Atlanta Georgia and Abuja Nigeria, where she offers international consultancy services in urban design and real estate asset management.



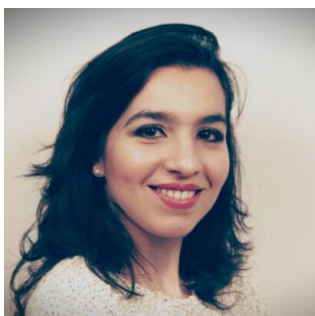
Dr. Jérôme Chenal

Swiss architect, specialist in African cities, Jérôme Chenal works at EPFL where he heads the re-searcher center Excellence in Africa (EXAF) and the Community of Studies for Spatial Planning (CEAT). Author of several MOOCs, including one entitled «African Cities: Introduction to Urban Plan-ning», this international expert, who also heads a firm specialized in major urban projects on the con-tinent, is the initiator of a ranking on quality of life in 100 major African cities.



Dr. Frédéric D. Meylan

Frédéric Meylan is Project manager at the EPFL - Excellence in Africa Centre (EXAF), where he is leading several programmes that foster outstanding research projects in African academic institutions. Frédéric received a PhD from EPFL in 2006. He used to work as Senior researcher at the University of Lausanne (UNIL) in industrial ecology and green chemistry. He was also international consultant at the United Nations for Industrial Development Organization (UNIDO).



Saïda Naji

Saïda Naji is Project Engineer at EXAF and is embedded into several programmes of the research centre; mainly within the EXAF Initiative and the Living Labs projects. She provides with her experience in industrial ecology, innovation and entrepreneurship and project management to build up the programmes. She is delighted to go through a cross-fertilized professional context spurring excellence in research, innovation and international cooperation.



Alyssa K. Barry

Alyssa K. Barry is a Senegalese architect and urbanist specialized on African cultural heritage. Her career has been punctuated with various international experiences in the fields of architec-ture, urban planning, international cooperation, cultural heritage and contemporary art. Alyssa is particularly interested in the notion of Africanity in today's African cities and societies and their place within globalization, and strongly believes in the role of culture as a vector of sustainable development for the African continent. She currently works as an independent consultant on Afri-can cultural heritage, and is the founder of AFREAKART, a digital platform dedicated to the pro-motion of contemporary art from Africa and its diasporas. Alyssa is also the current coordinator of the ICOMOS Emerging Professionals Working Group for the Africa Region.



Franklin Yemeli

Franklin Yemeli is a Cameroonian architect currently pursuing a master's degree in resilience design at ENSA Grenoble. He sees architecture and design as ways to improve people's lives. He believes in a social, engaged, sustainable and resilient architecture, and likes to imagine optimistic scenarios. He also believes in the diversification of the architect's role towards awareness, communication and mediation. His participation as a writer for several listed magazines allows him to contribute to the promotion of architecture and the role of the architect.



Cédrix Tsambang

Driven by the desire to put resilience back at the center of decisions about the built environment, Sthève Cedrix TSAMBANG FOKOU is passionate about a smooth transition to a post-carbon global scenario. He is interested in circular and blue economy approaches, smart, affordable and growth green tools/strategies. A specialist in sustainable innovation and green building technologies, he is recognized as one of the emerging voices of contemporary African and global sustainable architecture, through his theoretical and conceptual production and his engagement in activities promoting eco-responsible perspectives.



Christolle Tsambang

Christolle TSAMBANG, architect specialized in Ecoconstruction and Eco-management, militates for a contextualization of architectural approaches and for the return of the human in the urban. Convinced that there is no achievable sustainability in contemporary architecture without recourse to heritage, her work questions cultural heritage through her activity as a craftswoman and designer, and technology, in particular BIM and the sciences of matter. Recognized as passionate and committed, she advocates for greater opportunity and equity in gender. She works with teenage mothers and children in a participatory design process through art and gender choir workshops.



TAKIZALA MBWISI Florent Junior

TAKIZALA MBWISI is an architect by training, and worked for 11 years as an infrastructure expert in institutional support programs with USAID/DAI and the B&S Europe Project Management Unit of the European Union Delegation in the Democratic Republic of Congo, particularly in the Governance Support Program and the Parliamentary Support Program. He continued his career as an internal consultant and then as a technical assistant at the Agence d'Exécution des Travaux d'Intérêt Public (AGETIP-RDC, branch of AGETIP-BENIN). He also served as an external consultant, expert in procurement, for Doctors Without Borders Section: Switzerland (MSFCH DRC) and SAFRICAS CONGO SA. Since 2017, he is a teacher and researcher successively at the Higher Institute of Architecture and Urbanism (ISAU) and then at the New Horizons University (UNH).



Émilie Maehara

Émilie has 20 years experience in international relations and urban and sustainable development policies, including 13 in the French public administration. As an Advisor in charge of urban development at the French Ministry of Foreign Affairs, Émilie drafted and negotiated the SDG 11 on sustainable cities, managed urban cooperation projects in Africa and coordinated a multi-stakeholder platform gathering French urban expertise. She also served as an Advisor at the cabinet of the French Minister in charge of Urban policy in deprived areas. As Head of office for Sustainable Development at the Prefecture of Seine-Saint-Denis (40 cities, Paris region), she was in charge of supervising the environmental regulation of 4000 factories, the rehabilitation of polluted industrial sites and major urban projects: Olympic facilities, Grand Paris Express public (new metro lines in the Paris metropolitan area). Émilie managed legal advice, environmental litigation, and coordinated the relations with local governments, companies, environmental associations, the public and the media.



Agnès Brulet

Thanks to her father’s profession in an international press agency, Agnès spent her childhood in megacities around the world (New York, Washington, Paris, London, Hong Kong...). In 2022, after 20 years of working in the field of social communications for various international organizations, Agnès joined the Global Fund for Cities Development as Global Communication Manager. The main purpose of her contribution is to raise awareness of the remarkable work carried out by its teams and partners around the world. In addition, Agnès is committed to raising awareness of FMDV’s mission: support cities and communities in order to enable them to finance and deploy their development projects, for a sustainable and fair urban transition, in response to the needs of those who are directly impacted.



Wijdane NADIFI

Wijdane NADIFI is a Moroccan architect DENA, currently preparing a thesis for obtaining the DSA Architecture and Major Risks of the ENSA of Paris-Belleville.



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