



les ateliers

urban planning & development

Premier session of the West  
African Urban Planning Workshops

SESSION BOOK

- 2nd edition



# Porto-Novo

# 2010

Lokpodji a new  
district on the  
lagoon

Porto-Novo, Benin 30th July until the 20th August 2010

Urban development  
while preserving the  
lagoon banks

International workshop of urban planning and design



[www.ateliers.org](http://www.ateliers.org)

# THE BIRTH OF WORKSHOPS IN PORTO NOVO

Developed since 1982, the original method of Les Ateliers de Cergy consists in bringing together students or professionals from different countries and having them work in multidisciplinary teams on a topic of urban development proposed by the local authorities.

In November 2005, in the framework of decentralized cooperation with the Urban Community of Cergy-Pontoise, an international workshop of Les Ateliers de Cergy was organized in Porto-Porto to make some proposals about Porto-Novo as capital city of Benin, projects of urban development and promotion of the territory.

In June 2009, the new mayor Moukaram Océni asked Les Ateliers to come back to Porto-Novo for a special work on the planning of the banks of the lagoon in the city centre.

On the basis of these two successful workshops, the Municipality of Porto-Novo and Les Ateliers de Cergy are now wishing to develop a autonomous cycle of international workshops based in Porto-Novo with one workshop every summer. The objective is on the one hand to create a permanent and innovative "laboratory" on local urban development, and on the other hand to contribute to the emergence of a West-African network of universities, professionals and local authorities related to planning and urban design.

This first edition of the Porto-Novo West-African Workshops of Urban Development was launched on the day of celebration of the 50th birthday of the Independence of Benin. It gathered 22 participants, both Francophones and Anglophones, coming from 10 different countries and selected on the basis of a preparatory work. The jury members were also coming from different West-African countries.

This document is called the Session Book. It gathers the whole production of the workshop. It is available on Les Ateliers website : [www.ateliers.org](http://www.ateliers.org). We hope you enjoy your reading!



The Ateliers team of Porto Novo 2010, Romeo Houssou, Luc Raimbault, Vincent Bourjaillat, Andrew Pringle, Samia El Ouazzani, Gregoire Noudaikpon, Antoine Plane, Benjamin Cukierman (absent from the photo are; Nicolas Detrie, Antoine Vollet and Joëlle Akodjenou).



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# THE OBJECT OF THE SESSION

Porto Novo has a rich and colourful history; it is this past which has given the city such a diversity of place, people and culture that can be found today. In recent years it has undergone rapid growth, and this coupled with often severe climatic conditions has resulted in strains and pressures on its infrastructure, environment and the functioning of the city as a whole.

Now, with Porto Novo becoming more and more established as Benin's capital large steps are being taken to relieve these pressures through a range of improvement projects within the city and its surrounds. These projects are aimed at improving the quality of life within the city while enabling it to function efficiently and safely. A delicate balance must be struck up between the city and its valuable natural areas such as its lagoon and wetlands, these areas have suffered in recent times due to both people not understanding their sensitive nature and the lack of sufficient infrastructure within the city.

Recently people have recognised the value in these areas and the potential they have for helping to fulfil the needs of the modern city. The question now is how can the city and its inhabitants work with these areas, maximising their potential to support contemporary, sustainable living and growth within Porto Novo while preserving and enhancing the environment and its delicate eco-systems.

The workshop aims to stimulate interest and debate in such areas such as the chosen study area Lokpodji. The session shall result in various design proposals and solutions of how to take these areas forward in an appropriate manner while fulfilling the common interest of the environment, the city and its population.



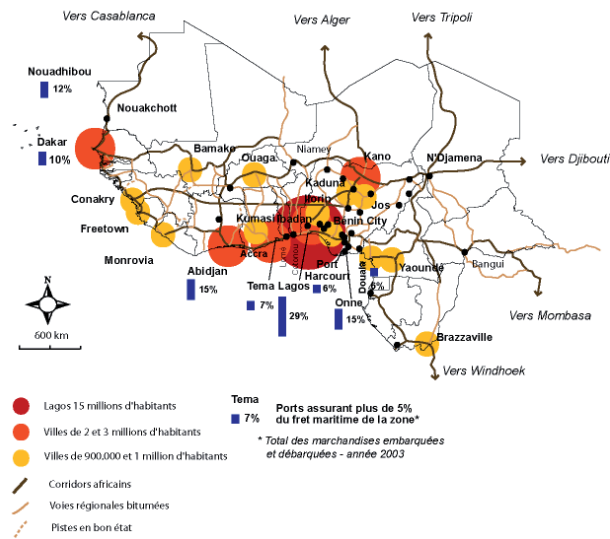


# PROBLEMATIC

# 1\_GENERAL PRESENTATION : ABOUT THE TERRITORY

Name: Republic of Benin  
 Area: 112,622 sq km (including 2,000 sq km water)  
 Boundaries: 1989 km (Burkina Faso 306 km, Niger 266 km, Togo 644 km, Nigeria 773 km)  
 Population: 9,056,010  
 Urban population in 2008: 41%  
 Density: 52 hab / km<sup>2</sup>  
 Political Capital: Porto-Novo  
 Porto-Novo Population: 232,000  
 Porto-Novo density: 410 inhabitants per sq.  
 Economic Capital: Cotonou

Métropoles et activités portuaires (2003)



## Urbanization processes and dynamics of sprawl in Benin

Like all African countries located south of the Sahara, Benin has experienced before the 1980s a period of intense urbanization. The migration of many rural to urban migrants is a factor in the urban dynamic. Urbanization of Benin was thus concentrated mostly in southern cities and especially on the coastal zone. This pattern of coastal development, is expected to increase in the future.

## History

After Independence in 1960 Porto-Novo became political and administrative capital, but it undertakes this function only in a symbolic way. The city is stripped of its attributes of capital to the 60s and 70s with the transfer of the Presidency and the Ministries in Cotonou.

As part of the reform of territorial administration and decentralization (Law of 15 January 1999), the city of Porto-Novo is slowly regaining its attributes of a capital (transfer of the Supreme Court).







## West Africa: A system of urban centers: gateway towns, cities of the hinterland

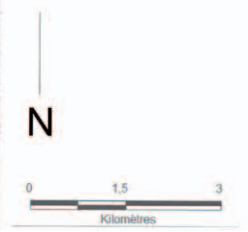
West Africa is characterized by high urbanization, particularly on the coast. The urban network of towns of the Gulf of Guinea is a predominantly urban area with a very strong polarized growth. According to the UN, in 2020 the population of the Atlantic coast of West Africa will be more than 600 million inhabitants, 54% urban.



# Porto Novo et ses environs



-  Main street network and Urban fabric
-  Local Urban Centre
-  Water (permanent)
-  Main rivers/water drainage
-  Seasonal Floodplain / Swamp
-  Seasonal swamp/ dense vegetation





## 2\_The City AND THE WATER

The lower valley of Ouémé Lake Nokoué (150 km) and the lagoon of Porto-Novo (35 km) together form the largest wetland of Benin, with 91,000 ha. Water plays a major role for food and socio-economic impact, feeding the groundwater that provides water wells in the vicinity and is used to irrigate vegetable crops. The lagoon contains important fishery resources needed to feed the people of the region and serves as a means of transporting goods and people.

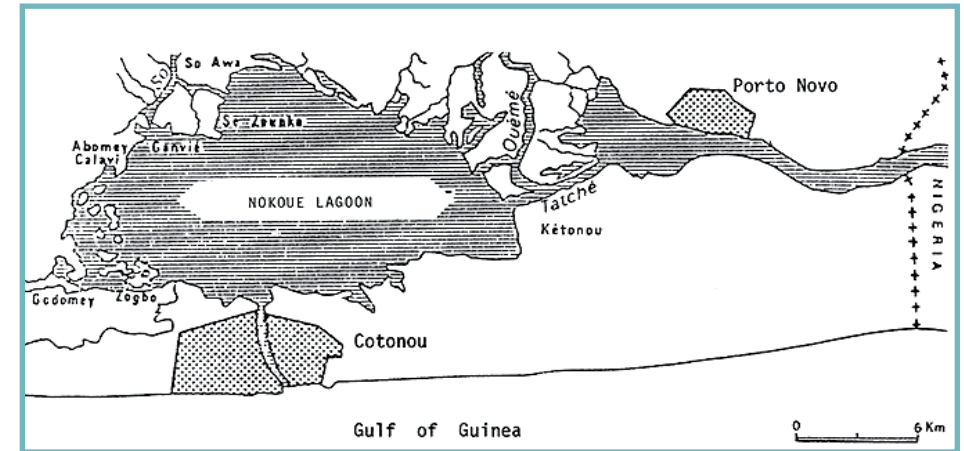


### The extraction of sand

The extraction of sand from the lagoon is linked to the construction needs of today. The coast of Benin is generally quite fragile and the extraction of sand on the shore accentuates strong sea erosion which the advancing sea is a direct consequence. With this in mind, in March 2009, the government closed by decree all sites of marine sand extraction. Since then, there has been a boom in the lagoon sand extraction including in Lokpodji, the effects of which are still poorly understood.



An example of traditional, local water transport.



### Traditional fishing: the technique of Acadja

The acadjas are traditional techniques for breeding and catching fish. The acadja involves implanting artificial substrates, piles of branches planted in shallow waters where the fish hides, feeds and reproduces. Its realization requires the use of a large amount of branches. This technique leads to overfishing and the filling of water bodies.



The trade and transport of goods such as rice seen here is a common activity on the lagoon banks



### 3\_ Environmental Issues



#### List Sites RAMSAR - International Conference of Ramsar, Iran, 1971

Wetlands listed acquire a new status at the national level and in the eyes of the international community, they are important not only for the country or countries where they exist but for all humanity.

“The selection of wetlands for inclusion on the list should be based on their international significance in terms of ecology, botany, zoology, limnology or hydrology”.

Benin recorded four sites totalling 1,179,354 hectares of wetlands of international importance: the lower valley Oueme, Nokoué Lake and the lagoon of Porto-Novo since January 2000 are included in the Ramsar List.



The dumping of domestic waste puts pressure on the ecologically fragile ecosystem of wetland sites.



Water hyacinth (*Eichornia crassipes*), an indicator of eutrophication and invasion of water bodies. 10 Plants can grow up to 600,000 plants in eight months and cover 4000m<sup>2</sup>.



# 4\_HERITAGE, CULTURE AND IDENTITY :

## Architectural treasures

Porto Novo has probably the richest and most diverse heritage of any city in Benin. Within 600 acres in the center of the city, history has left its footprint in the presence of successive Goun and Yoruba people, settlers and slaves, in comers from Brazil, these main 4 influences mingle and stand in the city creating the Porto Novo we know today.



Vernacular architecture associated with people, with Voodoo influences.



Colonial architecture introduced by the French colonial administration in the late nineteenth and early twentieth centuries.



Afro-brazilian architecture, built by emancipated slaves, back from Brazil. This architecture is characterized by a strong Portuguese colonial influence.



## A heritage to be safeguarded

The fact Porto Novo has a rich heritage represents a source of concern on the part of the municipality and the state. Indeed, this heritage suffers the ravages of time and weather, and continues to deteriorate. It is also degraded, denatured and destroyed by people who would rather see new development and don't seem to understand the value in this heritage.

To preserve this resource, the state took the initiative with a Special Program of Rehabilitation of the city of Porto-Novo (PSRPN) in the late 1990s. This program, after some fine achievements (rehabilitation of several Afro-Brazilian houses), was transferred in 2009 into an ad hoc agency: the Agency for Rehabilitation of the city of Porto-Novo. This effort enjoys the backing of the School of African Heritage, which has identified Puerto novien heritage and proposed several solutions for its preservation.



The municipality has also launched an initiative with the support of decentralized cooperation of Lyon, creating in 2009 the House of Heritage and Tourism. Its purpose is to promote tourism and raise awareness of heritage and its protection.



# 5\_ MAJOR DEVELOPMENT PROJECTS AND URBAN DEVELOPMENT PROSPECTS

The town of Porto-Novo looking for decentralization (1999) to develop the most harmonious way possible, turned to the idea of an eco-city. "Eco" for Economy and Ecology, the two axes of development brought forward by Porto-Novo.

## A dry lagoon port: Organize and control the flow

The goal of this project is to promote the river traffic of goods to and from Nigeria. It is a means of regulation (proposed establishment of a customs inspection) lagoon illegal flows and to relieve congestion on land.



The Hotel Libyan, lying on the west bank. Foreign investors interested in this part of the lagoon have developed it without considering the impact on the landscape. To avoid this happening again on the website of the municipality the Lokpodji development is anticipated.

## A university: To bring forth an attractive pole

Kuwait investors have become interested in site Lokpodji to implant an academic center. The mayor of Porto-Novo is willing to release 30 to 40 acres to accommodate such equipment.

**A new bridge on the East bank: Connecting, Networking, and strengthening the regional dimension in Porto-Novo.**



Under the Master Plan for Urban Planning and Development (SDAU), developed in 1999, it was planned to build a second bridge over the lagoon on the East bank Boulevard extension in the lagoon, to relieve the only bridge (2x1 lane) linking the city to the coast. Despite technical obstacles (problems of constructibility in swampy areas) and financial (high cost), the question remains relevant on a undefined horizon.



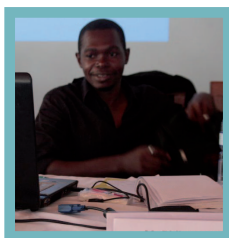
# **INTRODUCTIVE ACTIVITIES**

# CONFERENCES



## **The city and the water: relations, interfaces and dynamics**

NOUKPO AGOSSOU, PROFESSOR OF GEOGRAPHY, THE UNIVERSITY OF PORTO NOVO



## **The architectural heritage of Porto Novo: Analysis of the current situation and its evolution**

DIDIER HOUENOUEDE, DIRECTOR OF THE HOUSE OF PATROMONEY AND TOURISM



## **The projects of the city and vision for its development**

MR. MOUKARAM OCENI, THE MAYOR, PORTO NOVO



## **The urban development projects of Porto Novo**

DANIEL HOUNKPEVI, DIRECTOR OF SERVICE TECHNIQUES FOR PORTO NOVO



## **The fluvial port project, Lokpodji**

Sir Sadikou Ayo Alao, Lawyer

# LOKPODJI

## The first site visit to the study area.

The Les Ateliers team led by Gregory Noudaikpon, who is responsible for issuing building permits on behalf of the mayor of Porto Novo, the participants take note of the site and the problems associated with it, stopping at various key points: the canalised access equipped with a sewerage (though particularly used for stormwater drainage at the moment) network and already partially built, the fishing village with a flooded primary school, the route taken by the trucks associated with sand extraction from the lagoon, largely walled areas at the side of the lagoon, a large property hidden behind high walls, and finally the extraction of sand. Among all of this, a thick vegetation obscures small wetland areas and small scale agricultural operations.

The area has seen the beginning of a subdivision operation conducted by the municipality, but now halted by the new municipal team, pending a cohesive development project. Already, the plots are allotted, and boundaries of property, sometimes even walls typify the area.



Photos Andrew Pringle



On site the participants witnessed the main activities taking place at present in Lokpodji, amongst other things this included sand extraction from the berges of the lagoon, small scale agriculture, fish farming, construction and dumping of waste.



# FISH FARM, LOKPODJI

## A visit and tour of the fish farm of Pascal Akplogan located on the banks of the lagoon in Lokpodji.



Pascal Akplogan has been a Lokpodji farmer for 21 years. Today, Mr. Akplogan raises Tilapia, Carp and Clarias (more commonly known as Cat-fish). His farm is breeding fish until they are sold for consumption. The fish will, in general, stay seven months in the fish farm ponds and will be sold by the kilo, on site and in town, as well as in Nigeria.

Areas such as Pascal's farm demonstrate the potential for success in the area when working with the land and natural resources present.

Pascal led us around his farm explaining the different processes and activities he employs on site. He shows us his laboratory where he breeds and keeps young fish, as well as his open air pools on the lagoons verge. The farm uses the land to its full potential demonstrating the potential in the area if developed appropriately.





# Lokpodji

1km





# THE LAGOON, BY BOAT

## Visit of Aguegues and Lokpodji by boat.

In two groups the participants accompanied by the Ateliers team departed from a small port at Djassin in the south west of Porto Novo onto the lagoon in wooden boats. This excursion was to supply the participants with a better understanding of the lagoon system as well as to experience the site from a different perspective.



A visit to Aguegues was made this area being an excellent example of how people can successfully live on the verges of the lagoon in a flood area. Structures on stilts typical to the area were observed and a short talk was given about the area.

The second part of the excursion was centred around the study area Lokpodji, sailing along the banks to better understand the site from the southern lagoon boundary. Witnessed were the problems associated with accessibility from the lagoon to the banks by boat due to, primarily the large water hyacinth populations. Activities taking place on the banks were also seen such as fishing and sand extraction.



# THE ATLANTIC COAST

## A visit to the receding coastline south of Porto Novo.



A trip was made to the atlantic coast 15km south of Porto Novo. The coast is of particular interest and recent debate as it is receding at an alarming rate by many meters per year due to the strength of the sea resulting in this rapid coastal erosion.



Palms have been planted on the coast to try to help retain the soil through their roots. This has helped to slow the erosion but not by much due to the strength of the sea and palms having a relatively shallow root system and are unable to substantially hold the soil.



The coastline is an animated area with many small local populations fishing using traditional methods, this is constantly a dangerous procedure again due to the strength of the sea.





# VISIT OF THE CITY CENTRE

A short tour of the city centre.

Highlighted was the different phases of development Porto Novo has historically gone through shown through the city's diverse architectural heritage which is on display typical to Porto Novo's identity. The participants learnt of Porto Novo's unique character, this key to future development of the city.



By mini bus a tour of the city centre was made stopping at key points within the city, supplying the participants with contextual information on Porto Novo. This excursion helping to orientate the participants while informing them on the current situation in the town.



As development of the study area, Lokpodji, is viewed as a future extension of Porto Novo it is crucial that those involved fully understand Porto Novo and how it functions to help establish a successful link between the city and Lokpodji.

# CENTRE SONGHAI

A tour of the sustainable processes and systems employed at the successful centre.

Centre Songhai lies in a depression which makes it ideal for agriculture and the production of crops. Lokpodji lies at the end of a similar depression on the other side of Porto Novo highlighting the potential to transfer techniques and procedures used at the centre to the project area.



Sustainability is a major factor at the centre and the systems and processes on display here promote this. Waste is recycled and everything produced is involved in an overall on site cycle. As Porto Novo grows and develops there is a real potential for these processes employed here at the centre to be utilized on a bigger scale. Innovative centres such as Songhai are crucial to further the understanding of sustainable techniques in urban situations.



The group benefited from a full tour of the centre, with many of the techniques and on site processes being fully explained.









# THE PROJECTS









# A

## TEAM A « Gateway of the Capital »

Name	Speciality	Nationality	Age
DJOKOUI Koffi Agbekoh	Architecture & urban design (EAMAU)	Bénin	25 ans
MEGBOHONNOU M. Emeline	Geography (Université d'Abomey-Calavi)	Bénin	25 ans
CUSCINA Eleonora	Engineer & Architecture (Rome)	Italie	28 ans
BURGEAT- LOPEZ Raphaël	Architecture (Belleville & Uni fédérale de Rio)	France	24 ans
BERTHET Etienne	Engineer & Agronomy (Agroparistech)	France	22 ans

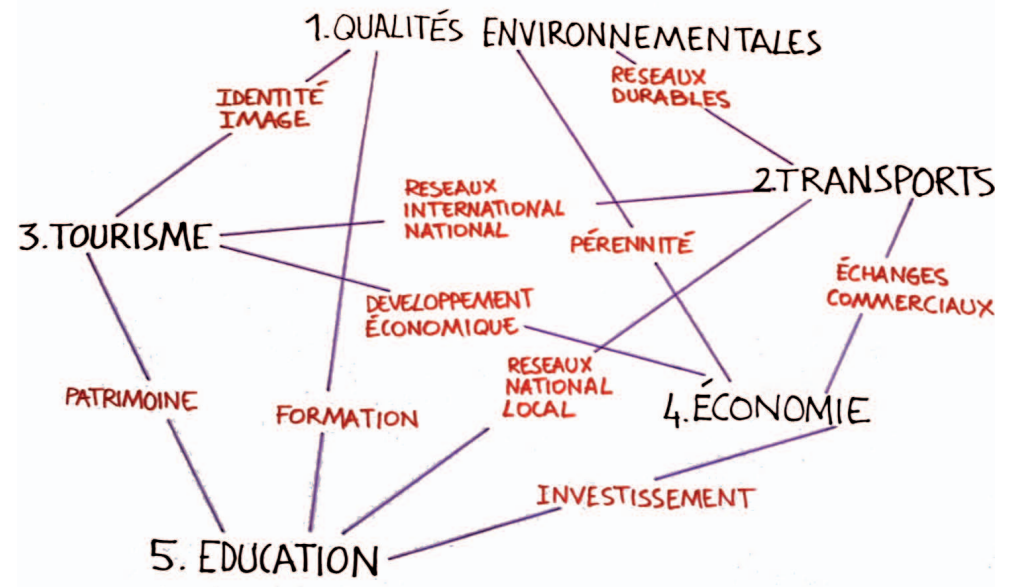
## Lokpodji, Une nouvelle porte pour la Capitale

When we focus on the area of Porto Novo, different meters are put forward by the situation:

-If we consider the urban's growth at the border of the gulf of Guinea, we can't help but think that the exchange between Cotonou, Porto Novo and Nigeria will follow an upward trend in the future. It is fundamental to consider the links between these urban areas during the creation of urban plans.

- Porto Novo is not considered as a capital by the population. It's important to work about the image, which is conveyed by the town.

-The city of Porto Novo is built near a lagoon. It's a vulnerable ecosystem but it brings also a lot of opportunities for the economic development.



Our concept, the door .

ATOUTS	FAIBLESSES
<ul style="list-style-type: none"> <li>○ l'eau</li> <li>○ terre fertile</li> <li>○ très faiblement urbanisée</li> <li>○ proche de la lagune</li> <li>○ présence de la verdure</li> <li>○ proximité des différents réseaux</li> <li>○ biodiversité</li> <li>○ foncier agricole moins cher</li> <li>○ exploitation du sable</li> <li>○ transport fluvial</li> <li>○ exploitation de la jacinthe d'eau</li> <li>○ proximité du Nigeria</li> <li>○ sensibilisation de certains habitants pour développer la berge</li> <li>○ volonté de la mairie à intervenir</li> <li>○ échanges transitants par la lagune</li> </ul>	<ul style="list-style-type: none"> <li>○ zone inondable</li> <li>○ forte convoitise de la berge par les personnes aisées</li> <li>○ jacinthe d'eau</li> <li>○ absence de voies à l'intérieur du site</li> <li>○ déchets formels et informels</li> <li>○ trafic informel</li> <li>○ peu de moyens de la mairie pour aménager</li> <li>○ pollution de l'eau</li> <li>○ exploitation du sable</li> <li>○ présence de grande propriété</li> <li>○ fragilité d'écosystème de la berge</li> </ul>

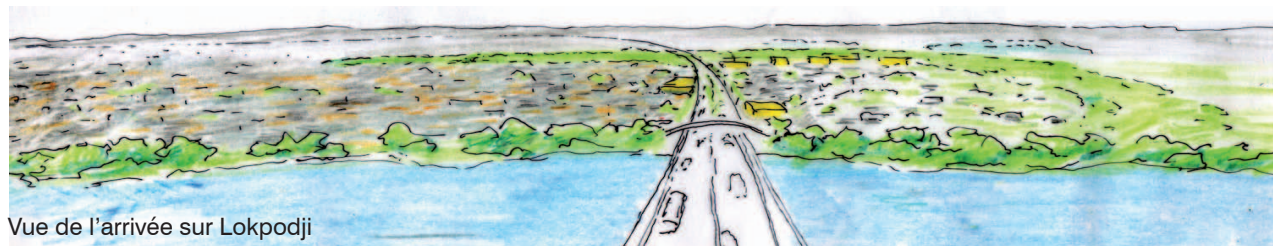
In order to bring solutions at these key questions, we believe that Lokpodji must be considered as a new door of

Porto Novo, and a double door.

-One for the cars by a new bridge in Lokpodji.

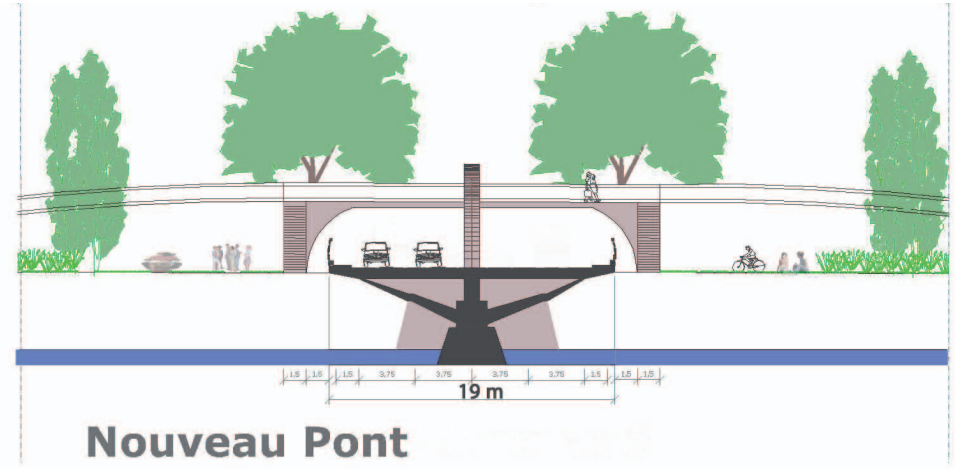
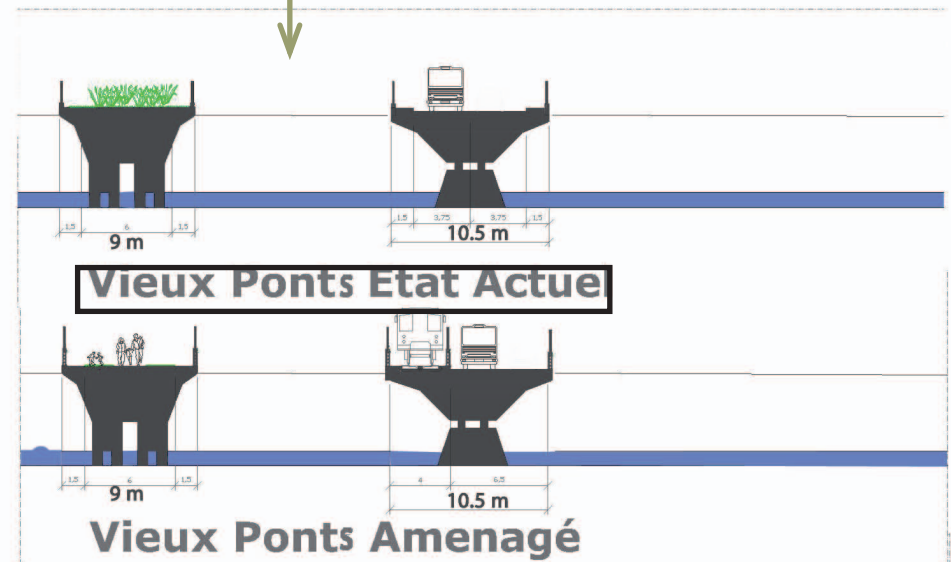
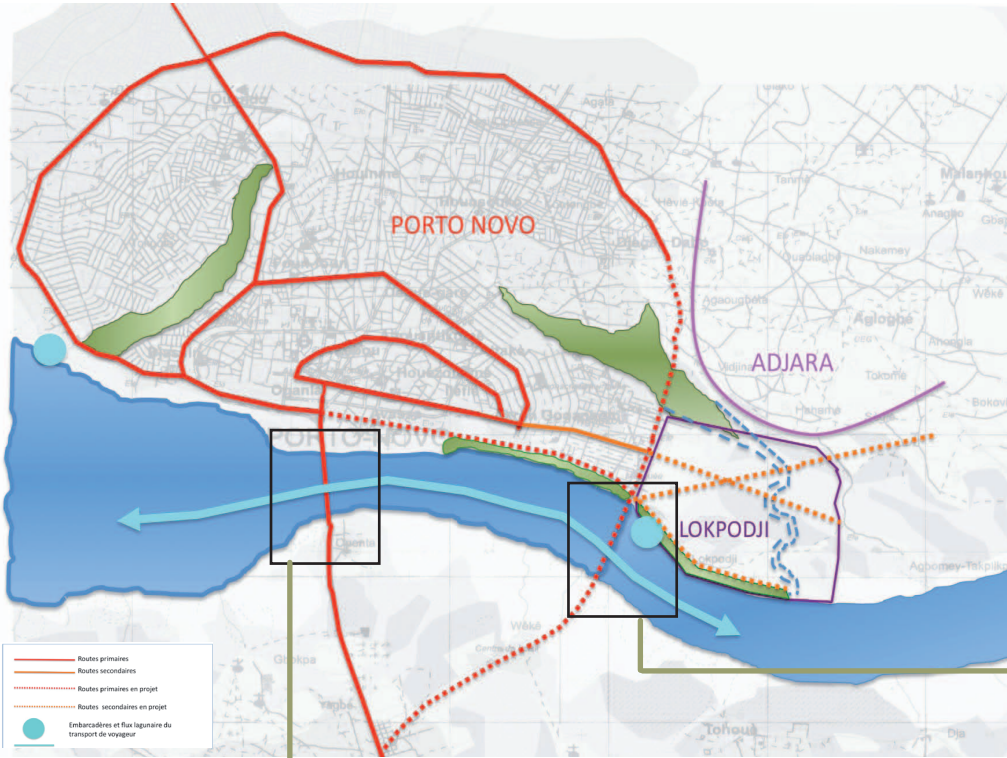
-One for the boats with passengers, and the debarkations will be also in Lokpodji.

These new door could transform the image of the city.

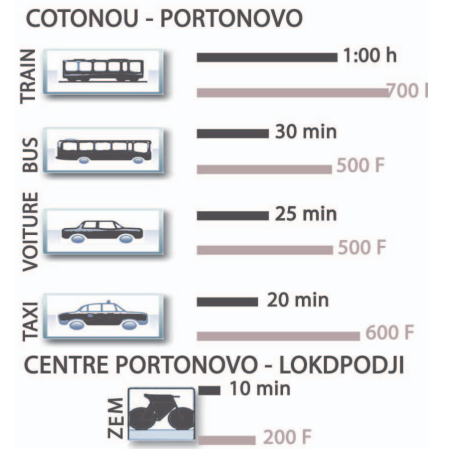
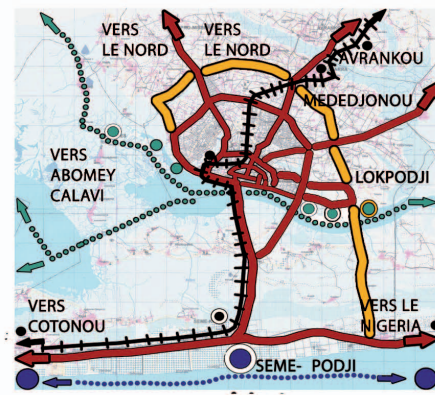
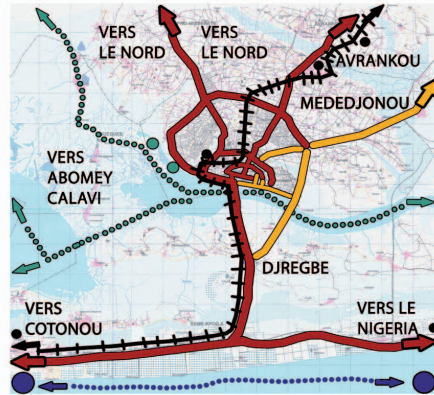
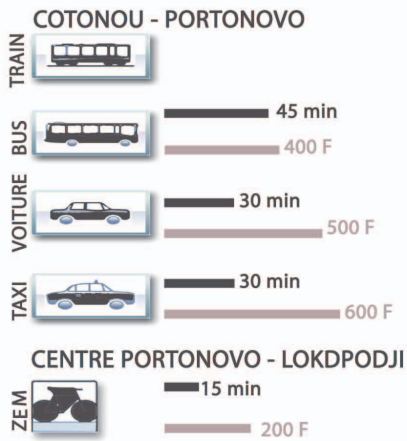


Vue de l'arrivée sur Lokpodji



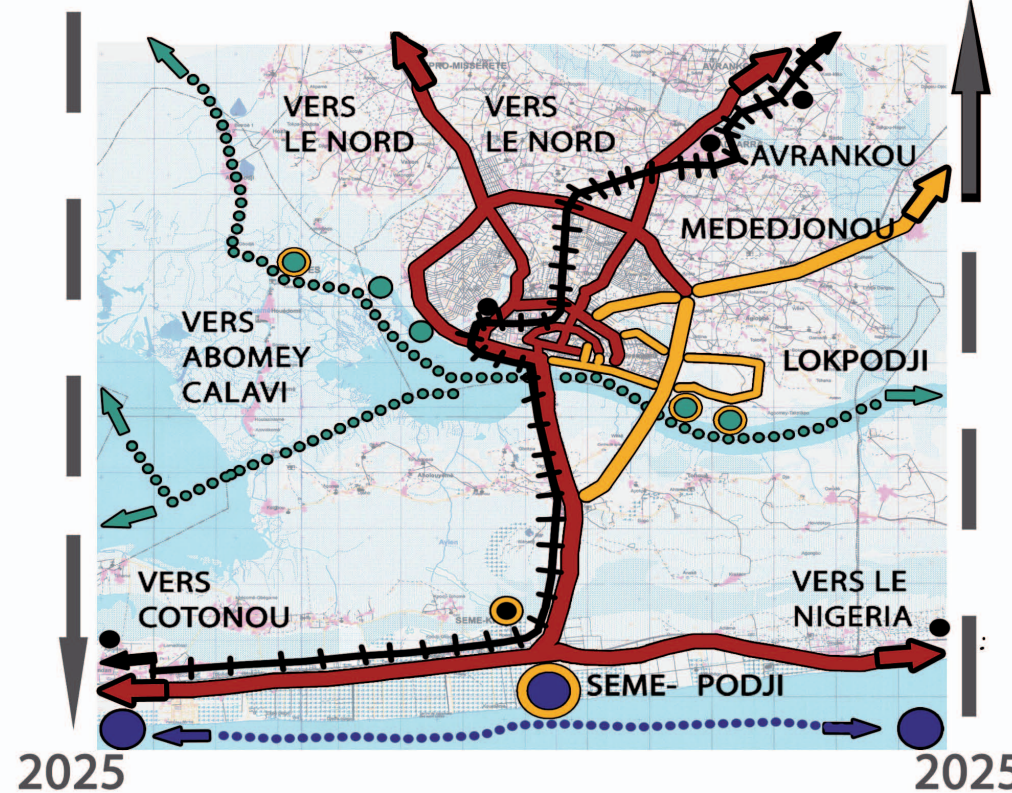


We continue to build the road from the “rocade exterior” to the actual way, which is coming into Porto Novo. The smith of this road is near Lokpodji, that the reason why we can't help thinking that Lokpodji is an important new door for Porto Novo. The bridge will be the connexion between the different ways of communication.



2015

2050



2025

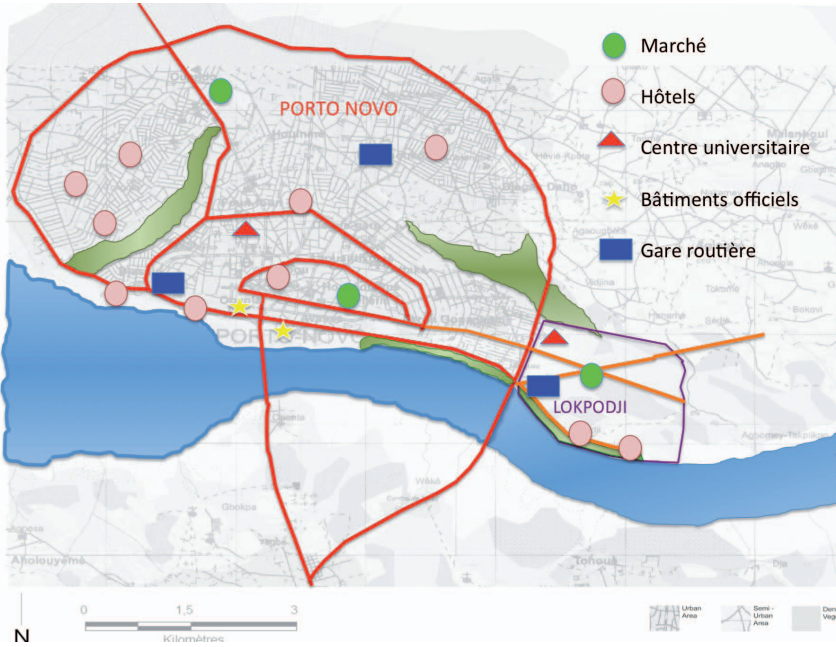
2025



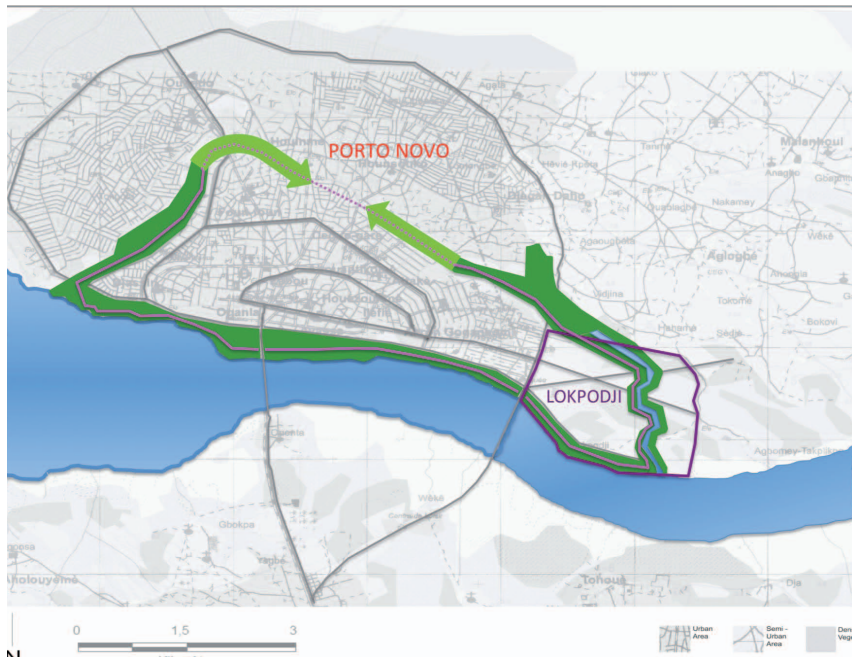
This is an evolution of the transport's map from the area of Porto Novo between 2015 and 2050

- The construction of a road with a new bridge and a transport of passengers by the lagoon and the construction of new debarkations.
- The rehabilitation of the train and the construction of freight's harbor in Sèmè Kpodji. Thus, freight could arrive by the harbor and then will go in all the area by the train.





Carte des grandes infrastructures autour des deux ponts, *great infrastructure*



La Ceinture verte, *Green belt*

We want to put different infrastructure near the new bridge in order to change conception of the city by the population (university for acknowledge, street market for the economies and a natural pedestrian corridor in the border of the lagoon, for the link between city and nature)



Axonométrie de la connexion entre réseau routier et fluvial

An example of connexion between road and embarkation:

At least, the natural pedestrian corridor will link the tow depressions on the city. It will be the green ring of the city.

1 Km

Vers  
Djègan  
daho

Vers  
Djègan  
daho

Répartition des différentes zones



- Tissue urbain 160 Ha
- Agriculture et Pisciculture 70 Ha
- Université 50 Ha
- Berges Lagunaires 20 Ha
- Traitement des eaux 10 Ha
- Centre culturel 3 Ha
- Marché 2 Ha



Légende	
[Brown square]	Habitat de densité forte
[Purple square]	Habitat de densité moyenne
[White square]	Habitat de faible densité
[Light blue square]	Village existant
[Blue line]	canal artificiel pour la dépression
[Black line]	Pont
[Yellow line]	Berge mobile
[Green line]	Berge fixe
[Green square]	Espace public
[A in red box]	centre Administratif
[B in purple box]	Mosquée
[C in cyan box]	Station de transport multimodal
[D in red box]	Centre culturel
[E in purple box]	Marché
[F in red box]	Ecole maternelle et primaire
[G in red box]	Complexe scolaire ( M+P+S)
[H in red box]	Centre medico social
[I in red box]	Centre artisanal
[J in black circle]	Embarcadère
[K in red box]	Production de biogaz
[L in red box]	Traitement des ordures

Vers  
Drègbe



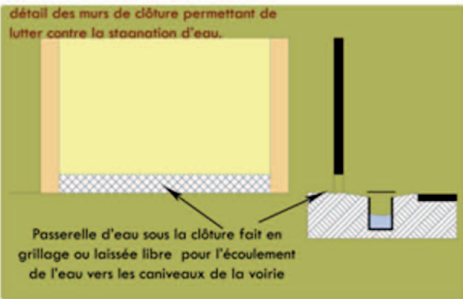


Utiliser pour les construction des matériaux éco-efficients (localement disponible, économique et respectueuse de l'environnement) intégrer dans les construction des système de canalisation des eaux de pluies des toitures jusqu'au caniveaux en bordure des rues.



L'espace entre le terrain naturel et le plancher sert non seulement à améliorer l'aération intérieure mais aussi et surtout à protéger les logements contre l'inondation

Iconographie



Pont



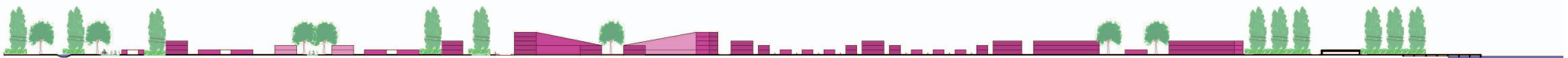
Université



Berge aménagé

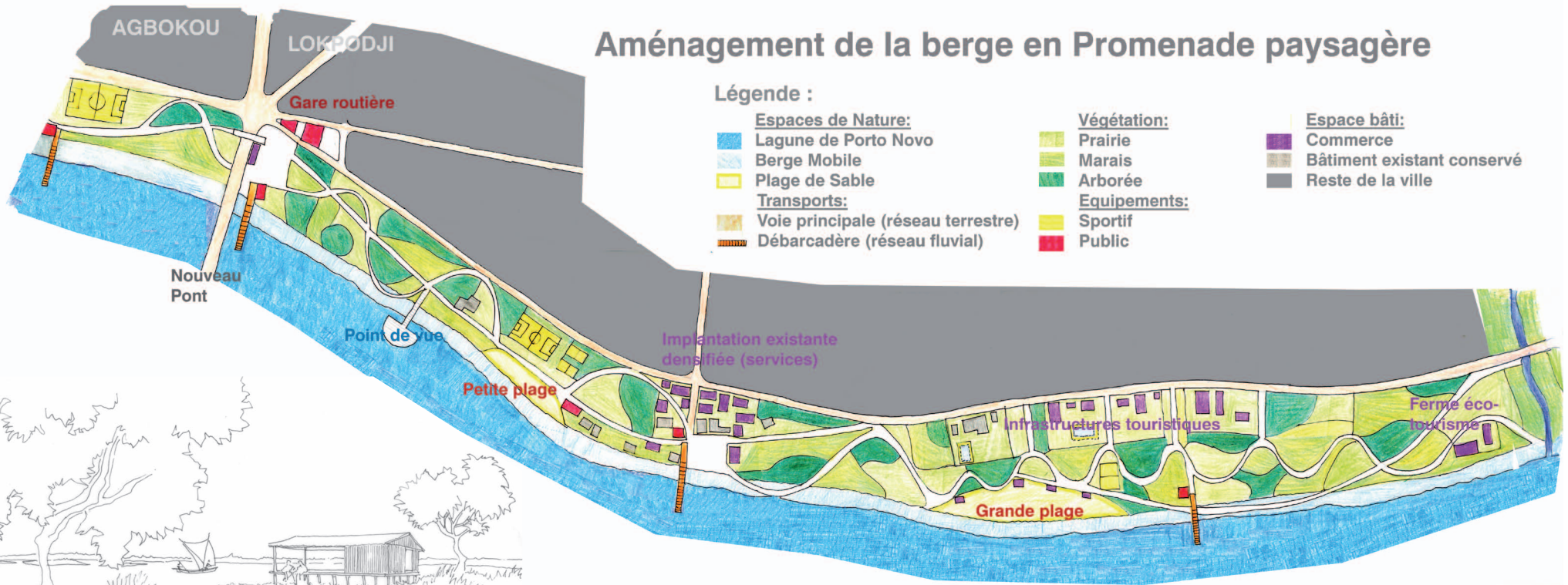
The most important idea is that the density follows a downward trend from the road to the agriculture's area.

Zone	300m <sup>2</sup>	500m <sup>2</sup>	densitt (hts/ha)
A (high density housing)	503	201	74.1
B (average density housing)	171	533	55.7
C (low density housing)	124	686	50.1
Total	798	1420	60



Elevation de l'axe principal depuis la dépression du Donukin jusqu'à la Lagune de Porto Novo

# Aménagement de la berge en Promenade paysagère

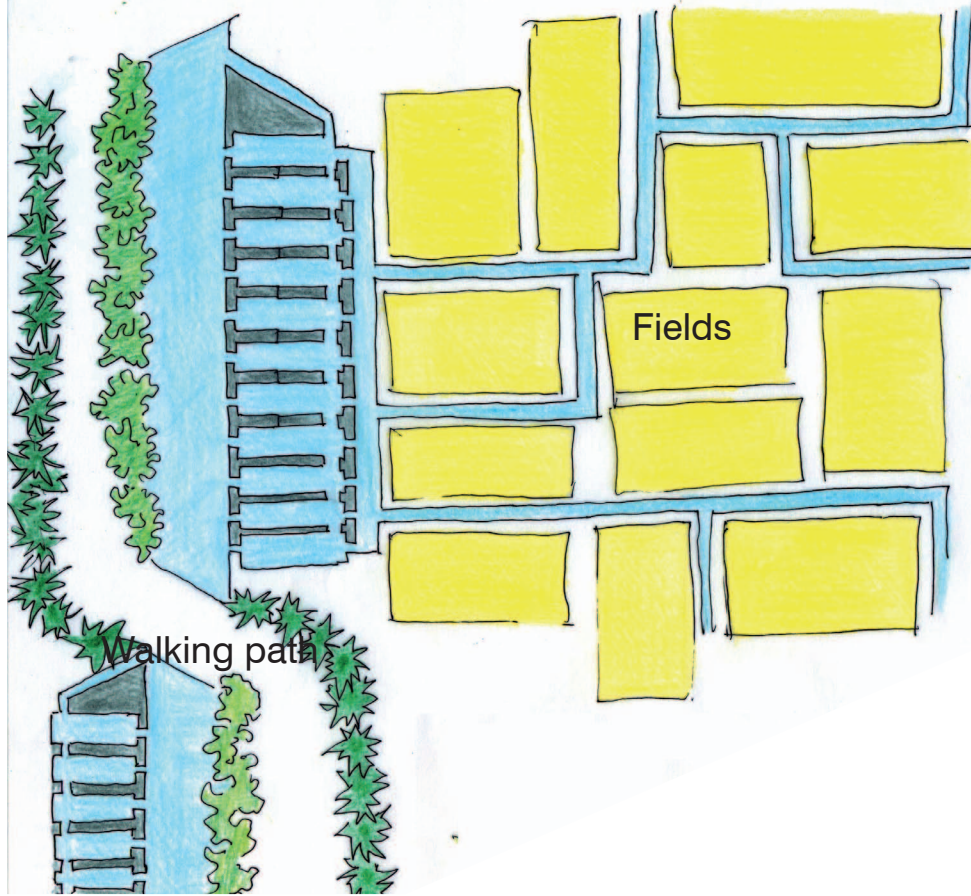


-Transformation of the border of the lagoon with a pedestrian way. There will be an interface between water and earth. It's important that the border of the lagoon continue to be a public space.

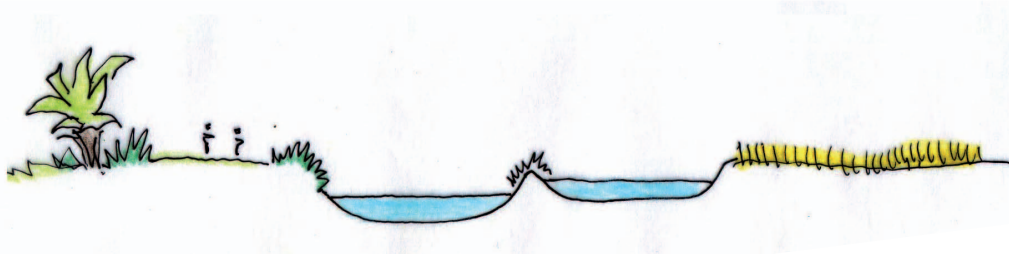




Canal and filtration basins



Drawing of the system



Cut of the system

The agriculture will have an important place. This agriculture will be delimited by the canal. Also, this canal will be a place where the water of town and agriculture will be treated.







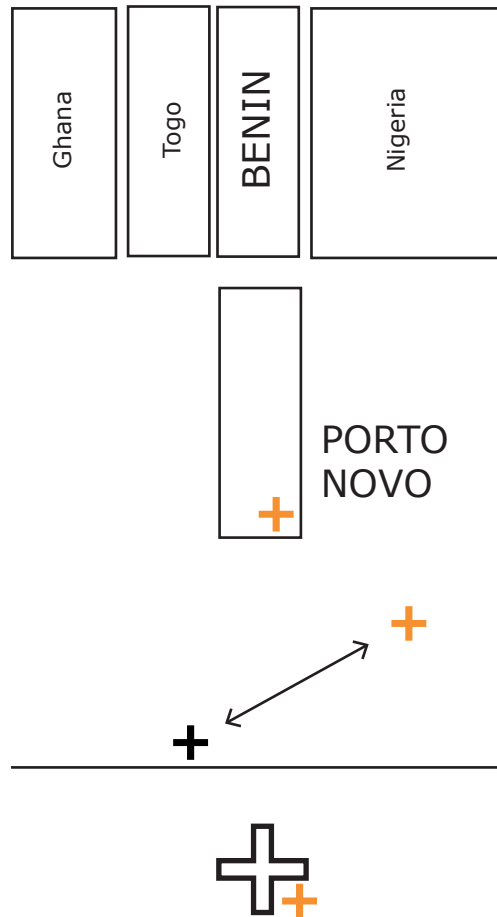
# B

## TEAM B

### « Nukonyiyijowamoton »

Name	Speciality	Nationality	Age
PEREIRA Lilian, dos Santos Fontes	Engineer (UFMG)	Brésil	22 ans
MAPOUKA Hervé Vianney	Architecture & urban design (EAMAU)	Centre Afrique	24 ans
SCHUT Miranda	Landscape Architecture (Wageningen)	Pays-bas	24 ans
AGBODJINOU Koffi Sénamé	Architecture (La Villette) & Anthropology (EHESS)	Togo	30 ans
DECARY Laura	Economy (ESSEC)	France	22 ans
ADELOWOKAN Oluwasogo	Urban design & planning (Ibadan)	Nigeria	31 ans

## CONTEXT: LOKPODJI IN PERSPECTIVE



At the scale of West Africa, Benin is first characterized by its diversity, not only geographical but also cultural and ethnic, as the country has been influenced by many people during several centuries, attracted by its rich territory situated along the Atlantic Ocean. Known for its strong political and religious stability, Benin is also distinguished by an important potential for economic development, particularly concerning tourism.

Benin's capital reflects the country's characteristics, especially through its cultural, ethnic and architectural diversity and through its high but relatively untapped touristic potential.

Faced with Cotonou's rapid development, this city being now the economic center of the country, Porto Novo, despite its unique heritage and strategic geographical position along the lagoon and in proximity of Nigeria, does not yet completely assume its rightful position as administrative, political and cultural center of the country.

The district Lokpodji is still isolated, little known and poorly defined, and is characterised by dualities, which exist in several dimensions:

- + Water and land face each other without connection, which enhances the duality of the territory, the lagoon being the meeting point between these two natural elements.
- + The open-minded mentality of the inhabitants contrasts with its closed territory, without a clear identity and often unknown for people living outside the area.
- + Traditional inhabitants are faced with the arrival of richer newcomers and new houses, often big and with several levels, blocking the access to the lagoon.
- + Local inhabitants show a strong will for economic development, but it often goes together with a short-term vision without a real "sustainable" perspective.

## APPROACH: DEVELOPMENT BASED ON TRADITION

Our proposal is based on two main principles:

- 1 An urban planning project must be based on local characteristics –not only geographic but also cultural- and from the history of the territory: we do not want to give a new and arbitrary identity to Porto-Novo through the development of Lokpodji, on the contrary, we have tried to reflect on the existing specificities of the city and to combine them with Lokpodji's characteristics so that the ancient city and the new district join together around a shared identity.
- 2 An urban planning project cannot be developed without taking into consideration the needs and will of the local population. For this reason we have adopted a participative approach by talking with the already settled people in order to know their state of mind, their expectations and their vision of Lokpodji in the future.



Our ambition is to make a sustainable design that is both modern and innovative but also respectful of tradition and the ecosystem. In gun language, this link between heritage and modernity can be translated into

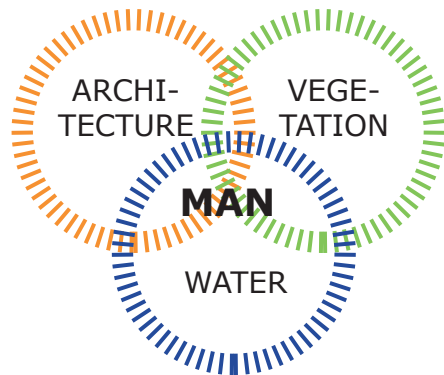
# NUKONYIYIJOWAMONTON

< development based on tradition >



## CONCEPT: CULTURAL SHOWCASE

The naturally existing features of Lokpodji form the starting point of our design. These three elements -water, architecture and vegetation- are connected and structured around the man, essential component of every territory and heart of our thought.

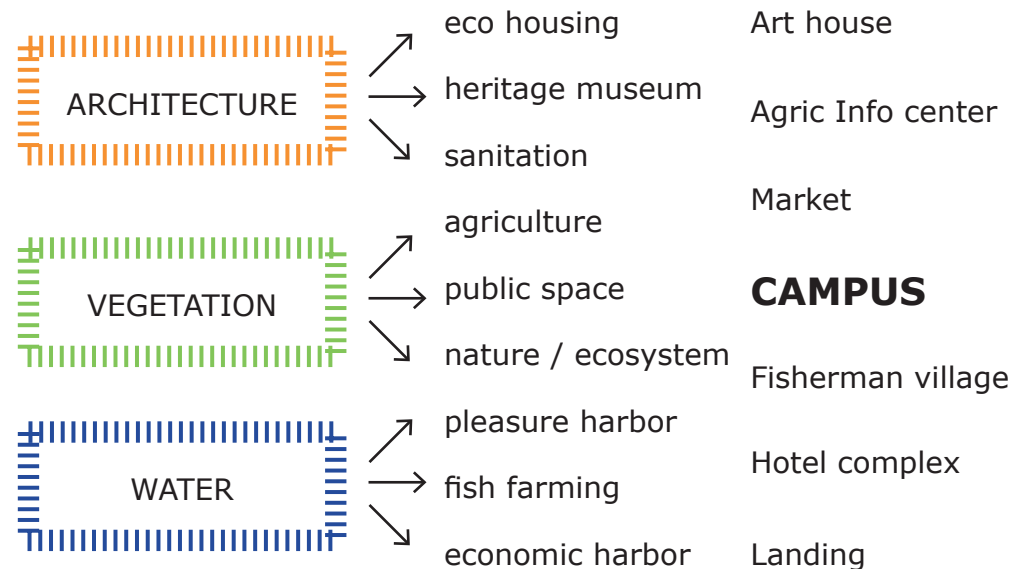


The development of the Lokpodji district represents an opportunity for Porto-Novo to define and differentiate itself, by emphasizing its status of calm and relaxed city in comparison to the constant agitation of Cotonou. This project is an occasion for the city to capitalize on its existing characteristics – rich historical heritage, ethnic and architectural tradition, lagoon landscape - and to transform potential into a real asset and tool contributing to the influence of the capital across Benin and the wider West Africa.

To compile the new district and the historic city around a shared identity, we propose to make Lokpodji the future cultural showcase of Porto-Novo, announcing a new era of development.

## CAMPUS: NEW HEART OF LOKPODJI

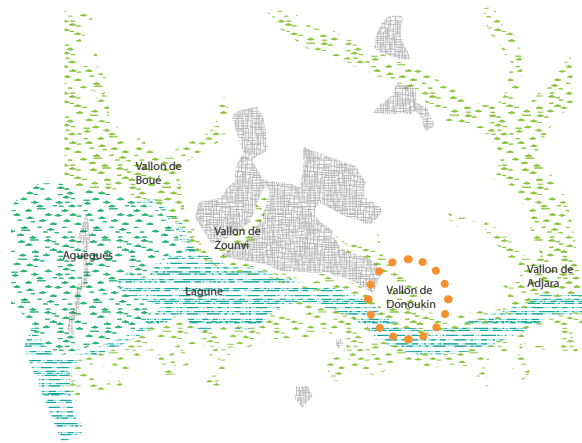
To transform the concept of a cultural showcase into an urban development project, we were inspired by the creation myth of Porto-Novo. In our reinterpretation, we see the three Yoruba hunters as the three elements of Lokpodji. For each element we have identified three potentials for the development of the future district which, gathered, constitute the metaphoric representation of the monster with nine heads, a benevolent divinity of Porto-Novo. Identifying the links between the nine potentialities enabled us to point out seven points for our program for the urban planning of the district.



Central in the program is the campus, a symbol of knowledge and culture: the heart of Lokpodji as new cultural center. The campus has a central position in the district around which the other facilities are organized and from which infrastructure diverges. Mirror of its environment, it is structured around three departments – art, architecture and heritage, hydrological science and agricultural science – together forming a university of environmental sciences. In a symbolic way each department is orientated towards the part of the city to which it is related.

- + The architecture department faces towards a residential area
- + The agricultural department is orientated to an area composed of fields and farms, which will be used as a place for experiments and learning for students. The goal is self-sufficiency of the district in terms of agricultural production.
- + The hydrological department looks at the lagoon

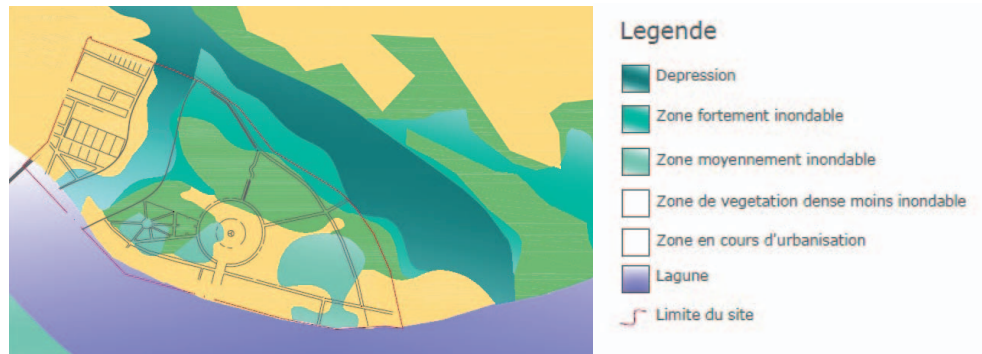
## ENVIRONMENTAL CHARACTERISTICS



Existing duality:  
Water vs. land, which face each other without connection.

According to the first principal of our approach, the planning of the district has been done considering the existing environmental characteristics.

The district of Lokpodji is intersected by the Donoukin depression which separates into two main branches before flowing into the lagoon. This reduces the retention capacity of the soil, making the area very marshy. However, if well managed, water can be an asset to the district.



The two valleys which traverse Lokpodji, on the West and East, will be recovered to facilitate the drainage of rainwater into the lagoon, without completely planning them. This approach allows the preservation of this exceptional and rich natural ecosystem.

Between Donoukin's two arms, we have identified a dry space already semi-urbanized and available for building, located at the very center of our area and which continues along the lagoon. Situating the campus in the center of the new district, where the area is dry and constructible, is coherent with the reality of the site. The agricultural area is located in a third, minor depression, which creates a fertile wetland appropriate for vegetable production. The decision to locate the residential area in a moderately strong flooding zone is made with an innovative type of housing in mind, and a way of occupying space adapted to existing constraints.

## TRAFFIC



Existing duality:  
Closed territory vs. open mentality of the inhabitants.

The district's development will generate an increasing traffic flow.

Considering that the building of the second bridge answers to a real need of the city, we propose to place it at the west side of Lokpodji, at the limit between the entrance of the district and the rest of the city. This location benefits the access to the north of Porto-Novo, without traversing the town center, usually obstructed facilitating the entrance in Lokpodji.

## CONCEPT

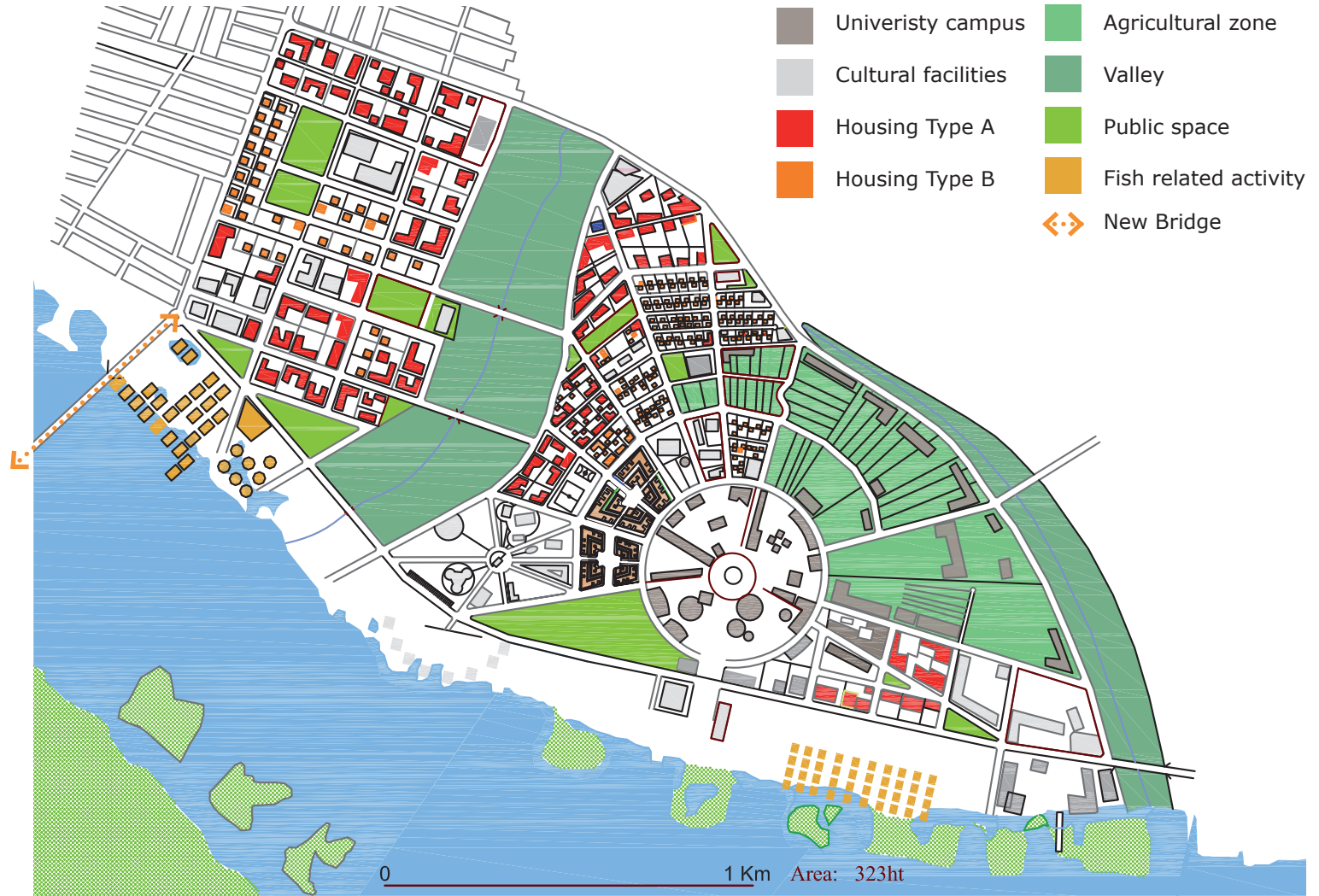
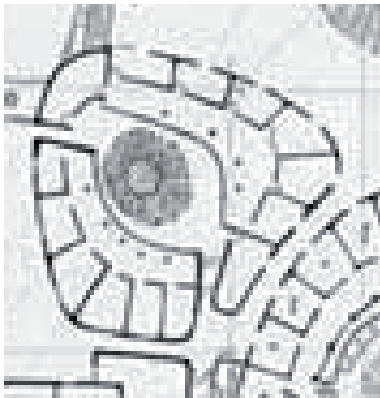
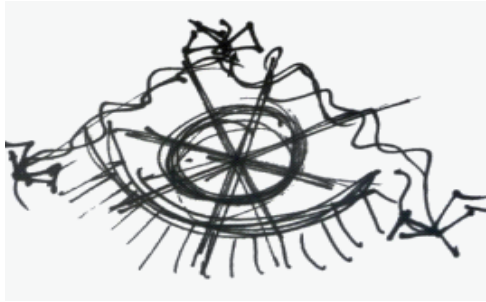
The spatial concept of the approximately 350 hectares large site is constructed out of the central core (the campus) and an arc (the lagoon lane), enclosed by the valleys (Image on the right page, top corner).

We would like to preserve the natural character of the lagoon and adapt the development of the site to its natural characteristics, by creating an attractive and accessible recreational area. The lagoon arc represents a leisure path offering complementary activities in addition to the campus. It enables the connection from the cultural center in the west, along the hotel, the central public park, the fishermen village, the arts & crafts market and finally the landing in the East.

The campus has a concentric organization, which is inspired by the traditional Yoruba villages (See second image, from prof. M. Fassudi, Architecture d'Afrique noire, essai de cosmoarchitecture, 1999, Edition L'harmattan).

From the core area, it opens up to three zones: the residential neighborhood, the wet lagoon area and the agricultural zone (referring to the concept of architecture, water and vegetation). The link between the zones will be created by the mixing of functions in the transitional areas, each one being attached to the other in an inseparable way.





Zunvi Valley

Colonial / Afro-Brazilian Neighbourhood

Existing Bridge

Historical Neighbourhood

New Bridge

Donoukin Valley

Campus



## ENVIRONMENTAL: A DRAINAGE SYSTEM



Flooding has three main reasons:

- the abundance of rainfall in the rainy season,
- the overflowing of the rivers and
- stagnant water.

In order to control these events, we propose three directive lines:

- 1** Collect, treat and use rainwater: considering that this practice already exists in Lokpodji on an individual scale, it means reproduction of this practice in a larger scale: three reservoirs will collect the rainwater that will be directed to the treatment center, where it will be processed and redistributed.
- 2** Respecting the valleys
- 3** Creating infiltration zones which will be integrated into the landscape and public spaces.

## TRANSPORT: CREATING STRONG LINKS

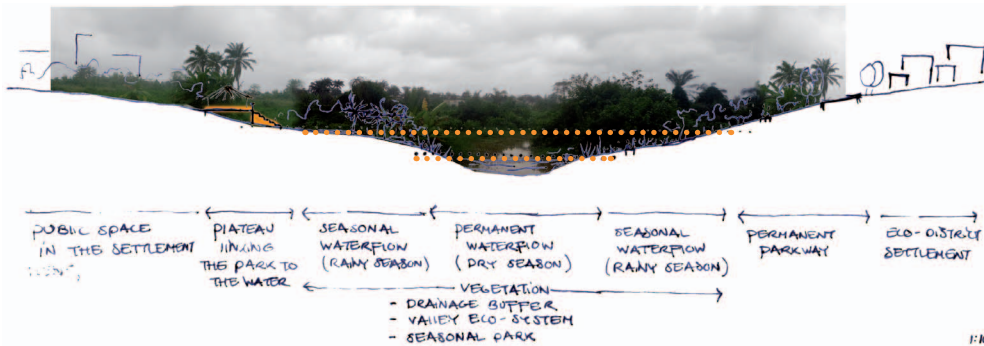


Taking into account the different attraction points in the new district as well as the impact of a second bridge to the local traffic, we made a preliminary analysis of the traffic flows, which enabled us to identify possible and desirable connections and to classify the roads.

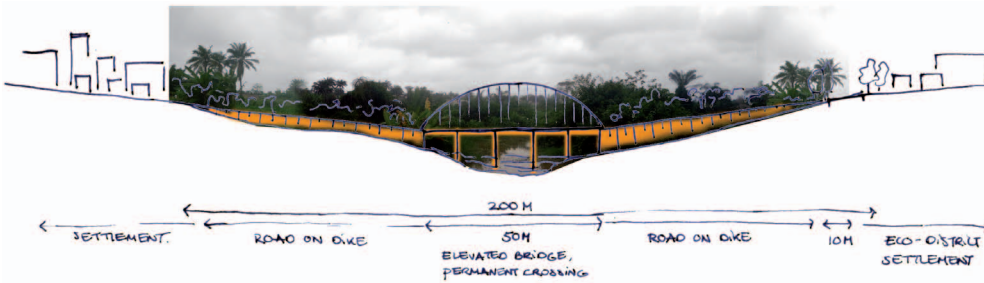
We propose to create a new road parallel to the bank, connecting Porto-Novo's center to the second bridge. The road proposed around the east side of Lokpodji, has several functions: it enables a quick access to the campus, facilitates the connection to Adjara and constitutes a road to absorb the trucks used for sand transportation, which deteriorate the existing roads and the environmental quality. In the center of the district, considering the delicate ecosystem, the pedestrian traffic should be privileged. Aiming to value the lagoon banks, the touristic lagune transport can be developed.



## VALLEYS: SEASONAL PARKS

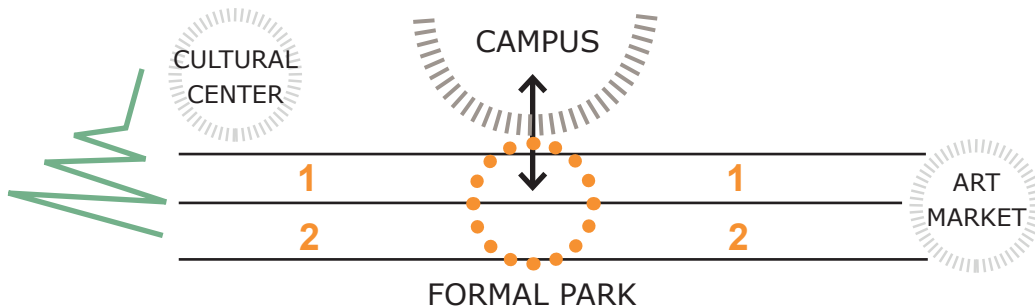


Besides its natural drainage function, the valley constitutes a changing ecosystem, which becomes a natural park during the dry season.



So that the valley does not remain as a natural barrier between the new neighborhood and the historic village, bridges are elevated to create a permanent path.

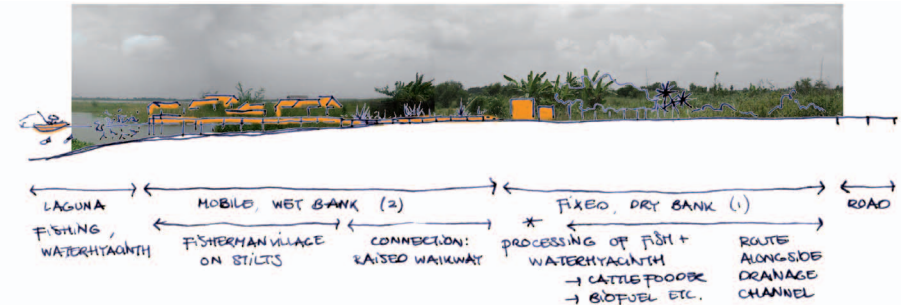
## FORMAL PARK: TOWARDS THE WATER



## LAGOON BANKS: A LANDSCAPE IN MOTION



The area along the bank of the lagoon is a place to relax and enjoy the environment and biodiversity during a walk.



In certain areas there are more facilities, like here with the presence of a fishing village, without losing public accessibility and environmental quality.



Central in the arc is the formal park, which connects the lagoon with the campus. In the informal park zone there is regulated access via an elevated pedestrian path, which links diverse activities on the dry, fixed banks (zone 1) as well as the wet, mobile banks (zone 2)

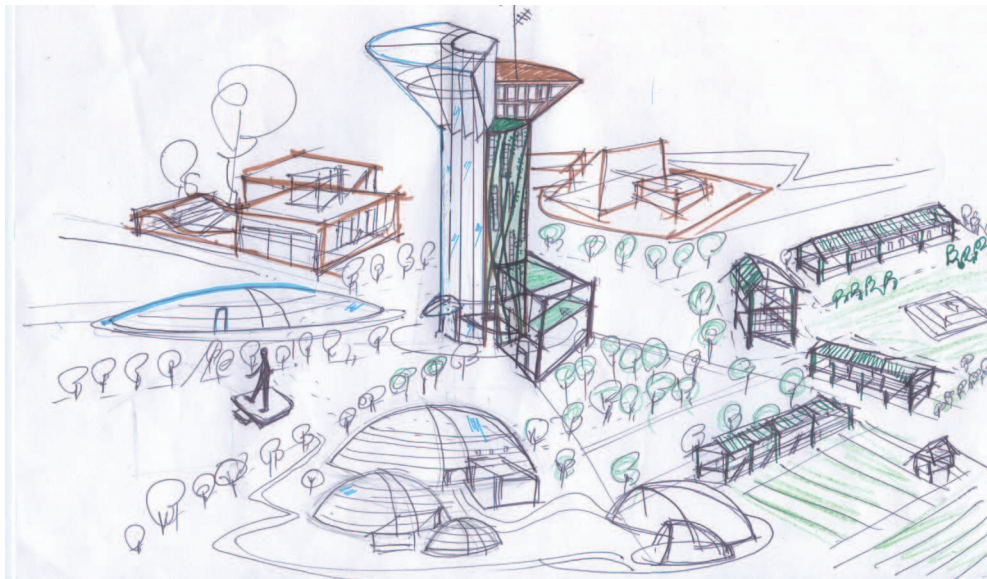
## TOWER: A STRONG SYMBOL

The tower is the embodiment of our aspiration to give a new dimension to the district through an architectural statement; immediately visible and recognizable. It will be the central eye-catcher in a cluster of restaurants and university libraries, offices, auditoriums and recreational and meeting areas, creating an element of verticality in the heart of the campus and neighborhood in the making. Taken soil characteristics and the environmental fragility into account, we have considered two options:

1: An observation tower with a wide foundation of several stories containing different functions. (first three images)

2: A tower that is accompanied by a more functional dimension. Shaped like a water tower, it could also acquire the function of water storage. Around the water column different functions can be gathered, mirroring the three departments on the campus (Forth image and sketch)

At a city scale, the tower in Lokpodji echoes the existing (water) towers in Porto Novo, creating a strong visual connection between the new district and the rest of the city.



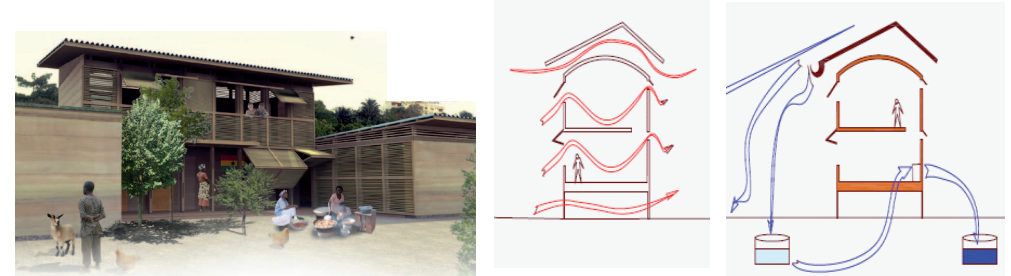
## ARCHITECTURE: A NEW WAY OF LIVING

Considering the rich architectural history of Porto-Novo, we wanted to imagine a new kind of housing, characterized by a mix of existing local knowledge and modern techniques (in line with our ambition to base development on tradition). This can be expressed in the use of materials, architectural forms and the way space is occupied.

50% of the 350 hectares of our study area will be devoted to housing, estimating the total number of inhabitants between 3000-5000. To counter the duality currently existing between the indigenous population and the new arrivers, we want to encourage a social mix in the center of the main neighborhood, integrating the second smaller housing zone, composed only by rich houses.

Using local materials, a natural ventilation system, catching rainwater and installing solar pannels limit the energetic dependence of a household (top row of images).

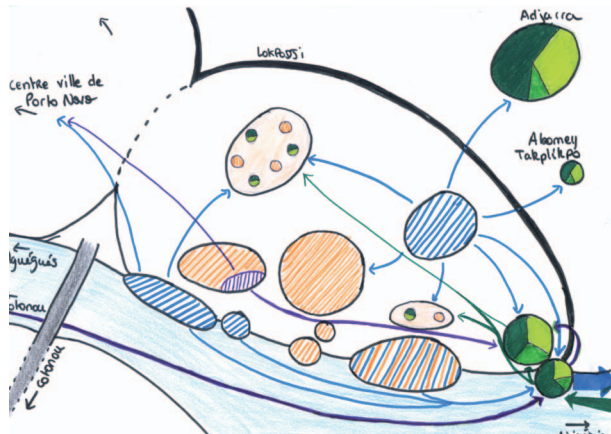
Houses are inspired by already existing habitat shapes, like the ones in the fishermen village which show a clear link to the lagoon (bottom image).





## ECONOMIC IMPACT

### Economic flows and activities

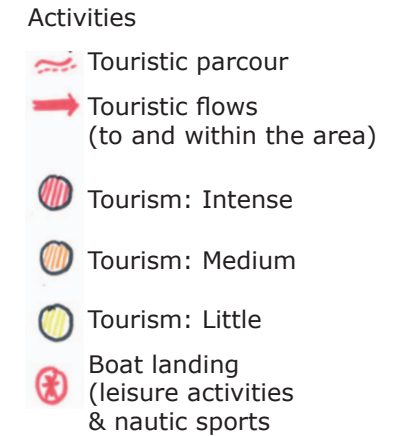
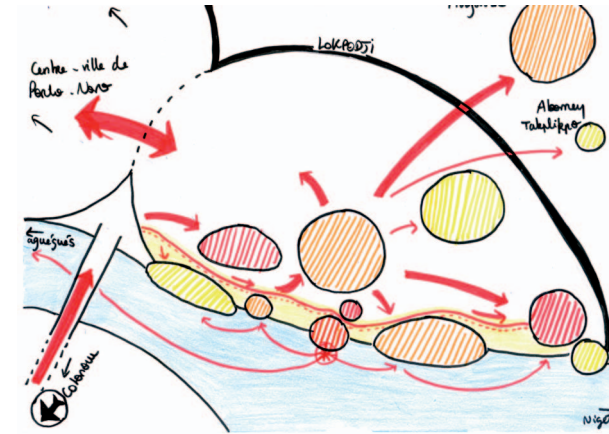


The campus, cultural center and the development of tourism will increase the activity of services. The agricultural production and fish farming will enable self-sufficiency of the district in terms of food. The exchange of goods is stimulated by the installation of a landing on the east side of the district.

## PHASES

- 2011** Workshops and meetings with local stakeholders.  
Creation of an urban plan (spatial as well as regulations) to prevent the increase of urban sprawl and illegal appropriation of the lagoon banks by private owners.
- 2015** Development of the lagoon banks into an attractive tourist hub.
- 2020** Development of the road and bridge, to avoid isolation.  
Once connected to the rest of the city, the district can accommodate the residential area.
- 2025** Finally, the university campus is created. Because the feasibility of the installation of the campus is uncertain, we would like to consider an alternative future in which this part of the project does not materialize. In this scenario, the other steps are still valid; the residential area can be extended, with a larger focus on the cultural center.

### Touristic flows and activities



By turning Lokpodji into the cultural showcase of Porto-Novo, our proposal enables to capitalize on the existing touristic potential of the city and to transform it into a real asset. Tourist, who will arrive mainly from Cotonou (international airport), will be able to directly access Lokpodji thanks to the second bridge. The touristic path enables them to enjoy the different activities which compose the arc along the lagoon. The newly established connections will facilitate the flow of tourist between the historic center of Porto-Novo and the new district Lokpodji.

## CONCLUSION

Making Lokpodji the new cultural showcase of Porto-Novo allows the city to reclaim its identity as cultural city of Benin and capitalize on its existing strengths. In the larger metropolitan area of Port-Novo this function of Lokpodji responds to a desire to boost the city and accommodate the wish to develop a tourism friendly environment and local culture, complementary to Cotonou. The option of installing a campus in the heart of the district responds to a real need for educational infrastructure; the capacity of the universities in Porto-Novo and Abomey Calavi are showing their limits. In addition, the campus acquires a central role in the project, because we believe that education is intimately linked to culture and its transmission. Through the concentric organization, linking the three characteristic features of the site, it brings out the existing environmental qualities without transforming them. It also represents an appropriate compromise between on the one hand the still virgin parts of the site and the emerging undesirable unplanned urbanization, and a comprehensively planned, developed site on the other.









# C

## TEAM C « Ogbame »

Name	Speciality	Nationality	Age
CHENDJOU Corneille	Architecture (ESIAU)	Mali	21 ans
LONGHURST Rowan	Landscape Architecture (Sheffield)	UK	25 ans
JARNY Olivia	Economy (ESSEC)	France	24 ans
GRIMALDI Marjorie	Engineer of the science and technologies of water (Polytech'Montpellier & Cranfield)	France	27 ans
HOUNKANRIN Michel	Geography (Université d'Abomey-Calavi)	Bénin	25 ans
GADY Marthe	Architecture & urbanisme (La Villette)	France	27 ans

## LOKPODJI, A NEIGHBOURHOOD COMBINING URBAN DEVELOPMENT AND QUALITY OF LIFE

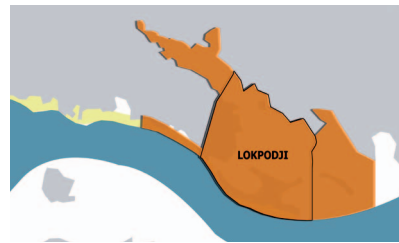


Porto Novo boasts many assets and strengths which set it apart from the industrial, throbbing city of Cotonou. As a result of a long, vibrant cultural and architectural heritage Porto Novians benefit from a strong, unique and distinctive identity, which enriches everyday quality of life.

Located along the lagoon and at the confluence of several river valleys Porto Novo is surrounded by several "green arms" which form the foundations of the Porto Novian character and identity.

The Valleys of the Zunvi and Donukin are of particular importance, and their presence within Porto Novo is fundamental in shaping the city and therefore integrated into every aspect of life. Green spaces, air quality, the urban fabric, fertile soils, biodiversity, water attenuation and the transition between land and lagoon are all as a result of these "green arms".

However, such areas which are currently underdeveloped, continue to be threatened by the pressures of an expanding city.



We feel that it is of upmost importance to the health of the city both now and long into the future to preserve and protect such areas. We recognize the importance Lokpodji within the entire Donukin Valley, and how the valley relates to the wider Porto Novo context. This therefore defines our study area, and allows us to consider proposals which penetrate deep into the city.

**Our ambition: to consider proposals, plans and ideas which infiltrate into the city (now, and anticipating future growth). Taking into account the everyday needs of the growing city whilst protecting existing environmental assets and managing flood risk.**

## AN APPROACH OF FOLLOWING THE WATER

It is the influence and presence of water which has sculpted the landscape of Lokpodji and the Donukin Valley. However as a result of such a strong presence of water the risk of flood comes hand in hand with such a rich and valuable ecosystem.

- Living with, and integrating the water cycle
- Canalization
- Water treatment
- Irrigation
- Wetland management
- Amphibian architecture and infrastructures
- Lagoon based activities and economies
- The varied roles of the lagoon banks...



All the above are subjects which feed our proposals and are integrated throughout the project.

## PLANNING PRINCIPALS

- Protected blue and green corridors which stem from the green heart
- Managed urbanization in harmony with the existing urban fabric
- Valued and preserved green spaces for leisure and agriculture
- Accommodating and encouraging innovation and enterprise
- Managing and protecting the lagoon banks for the enjoyment and benefit of Porto Novians

## Our view points on key projects

**New bridge:** We are convinced that a new bridge across the lagoon in continuity with the existing boulevard is essential in the future growth and development of Porto Novo. It will allow greater connection between Porto Novo and the wider environment, in particular with Cotonou and Nigeria.

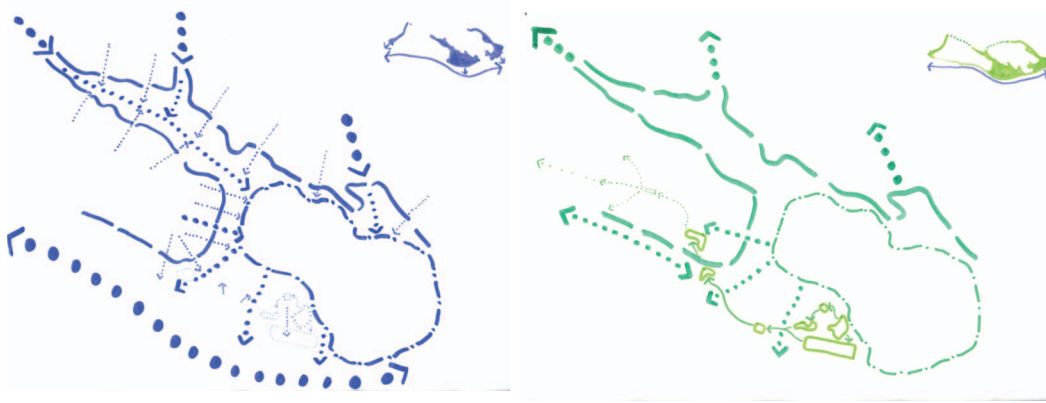
**Campus:** We think that Lokpodji could accommodate a future campus which would complement the existing campus at Adjarra. However it should be reinforced that such a campus must be sensitively planned and integrated into the existing urban environment, serving local needs as well as providing a hub worthy of international recognition.

**Trade Port:** We do not consider Lokpodji a suitable site for a commercial port. Although we recognize the economic value, we feel that such activity would be detrimental to the fragile lagoon and Donukin ecosystem. We do however feel that more infrastructure for existing and future fishermen could be sensitively positioned along the banks, which would also accommodate water based transport.



## A NATURAL SPACE TO PRESERVE AND PROMOTE

Water is strongly linked to the green elements that are the at the origin of Lokpodji's quality of life.



In order to preserve the richness of the Donukin Valley, we propose to create a natural park in the heart of the valley which celebrates the existing ecosystems and habitats.

This protected area, approximately 450 ha wide, characterised by both green and blue elements, will continue to provide a 'natural service' to the community of Porto Novo: biodiversity, a green lung for the city and wider region, water filter, CO<sup>2</sup> storage...

### This park is the "green heart" of our project.

It will be bounded by pedestrian routes and places of leisure and recreation.

The rest of the valley will be promoted and celebrated through the development of agriculture within fertile areas. Through the encouragement and promotion of agriculture references will be made to the agricultural heritage of the area.

Such agricultural areas will form the buffer between 'natural' spaces and urban fabric.



The green heart of the project

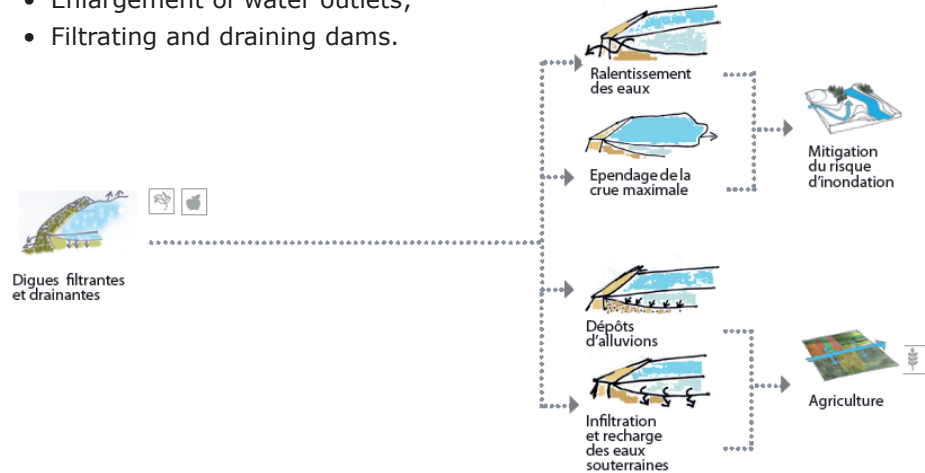
## THE PATH OF WATER THROUGH THE VALLEY

Managing water contributes to promoting the valley.

Storm water flooding in the area of Lokpodji is due to the level of the lagoon rising (climate change), fluctuating aquifer levels and poorly designed water outlets.

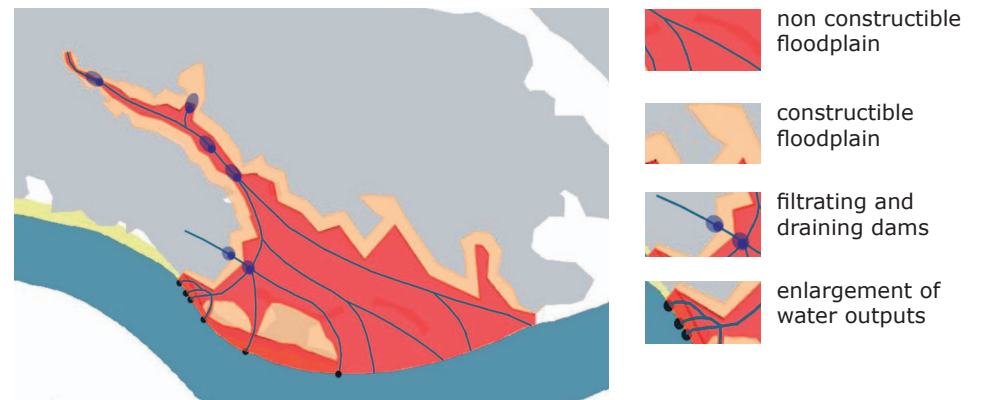
For these reasons, we propose to canalise and slow water without stopping it:

- Temporary retention basin creation;
- Enlargement of water outlets;
- Filtrating and draining dams.



In order to mitigate flood risk, compact urban areas can be planned in the continuity of Agbokou and in Lokpodji, here the following principles will be applied:

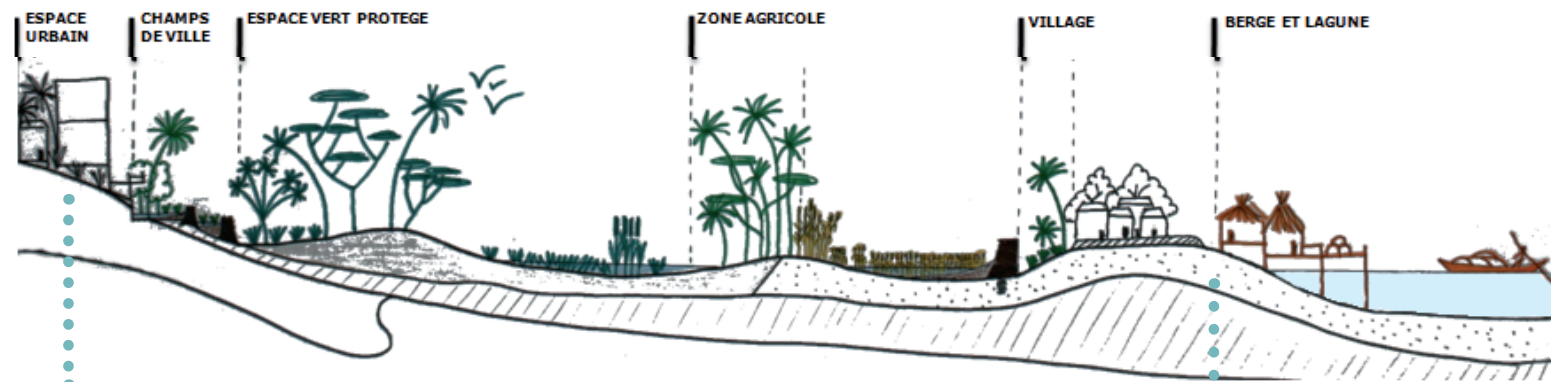
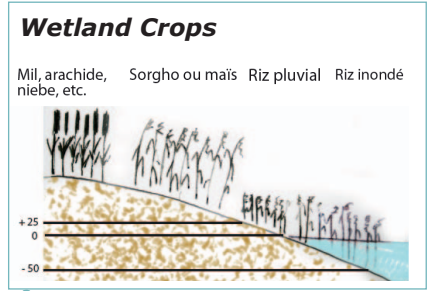
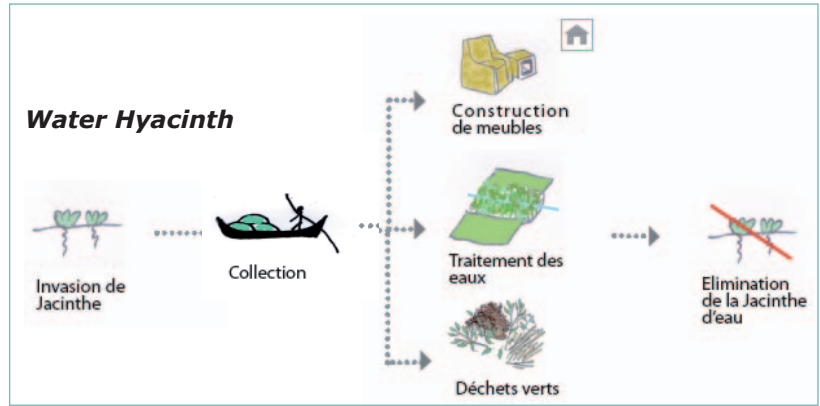
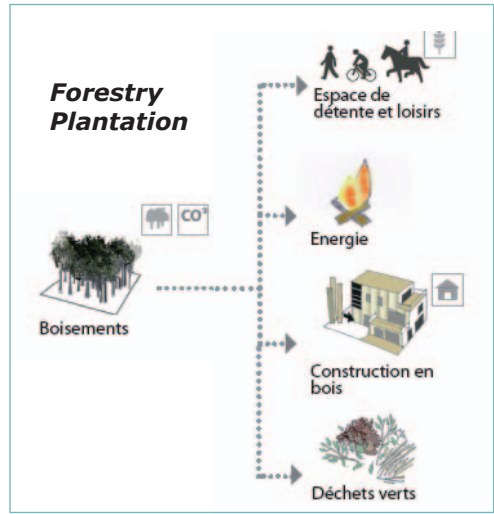
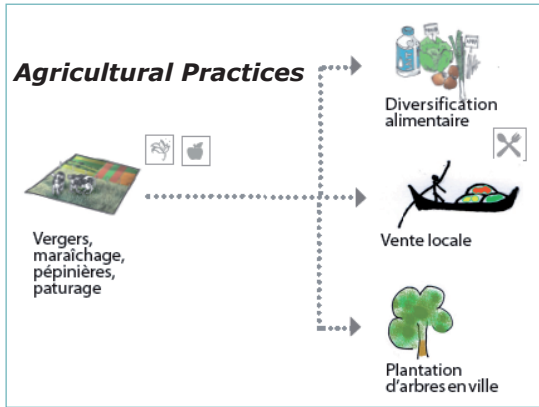
- Organisation of urban framework along the creeks;
- Permeable surfaces;
- Amphibian architectural designs within buildable flooding areas.



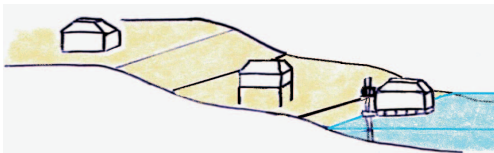
Flood plain and water management

# ACTIVITIES AND ARCHITECTURE RELATED TO THE LOCAL ENVIRONMENT

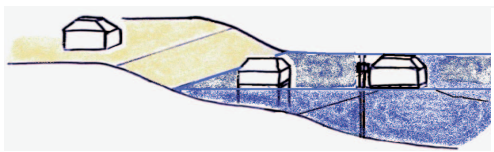
Our projects aims to take advantage of the potential of the area whilst integrating and responding to the qualities of the built and natural environment.



Housing on dry land (not at risk of flooding)



Housing adapted to periods of flooding



Housing fully adapted to changing water levels

## Housing adapted to periods of flooding



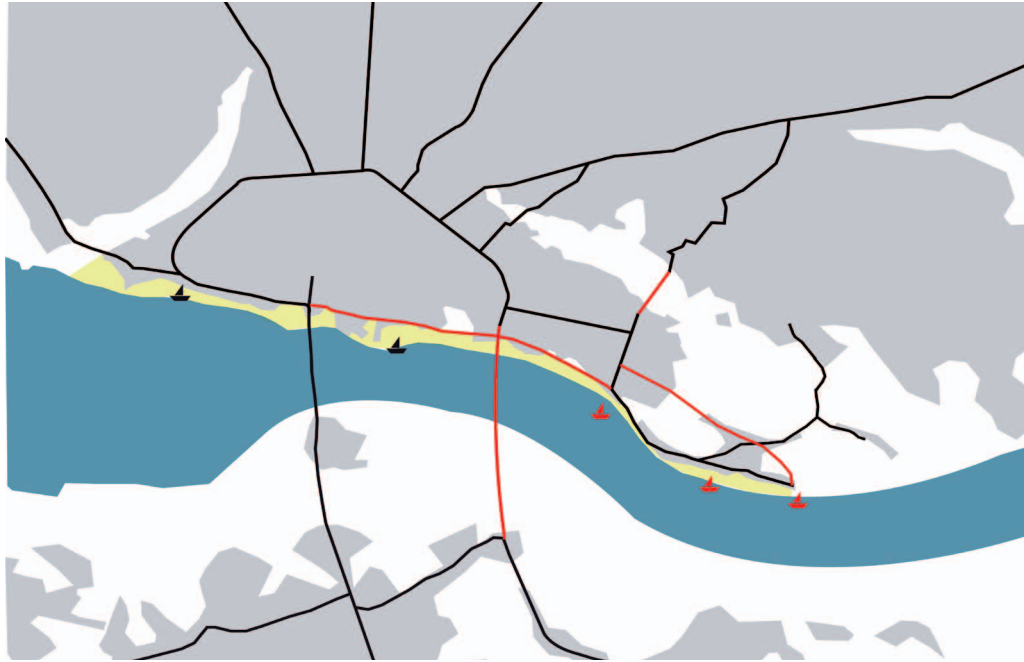
## CONNECTIONS WITH THE CITY

*In order to ensure the future social, environmental, economic and social sustainability of Lokpodji connections with the wider city of Porto Novo are fundamental. This will be to the benefit of both Lokpodjians and Porto Novians.*

Located on the far eastern edge of the city and on the lagoon bank, Lokpodji is currently significantly isolated from the rest of the city. It is our aim to provide both physical and social infrastructures which will provide integration with the rest of the city without compromising the unique and valued identity of the current community.

The new bridge acts as a continuation of the outer ring road and lies between the site and the centre of the city. Such a connection will provide increased access from the south and west as well as towards Adjarra to the north.

The installation of water based transport infrastructures along the banks will further add to connections with the wider city.



**New transport infrastructures**

## INTERACTIONS AND EXCHANGES

### **Activities that generate flows**

The proposed Campus would attract a further level of local, national and international engagement including students, academics and researchers. Such a hub of information, cutting edge research, training and education will result in a dissemination of information at a range of scales throughout the city, region and world.

By providing tourism and leisure activities along the banks (whilst safeguarding their ecological importance) Porto Novians will be able to enjoy the vibrant lagoon-side environment directly on their doorstep. The lagoon banks also provide an unrivalled focal point to further widen tourism and recreational aims.

Providing for local business and enterprise as well as establishing a central local market will attract further flows of trade.



### **An area which appeals to all**

Lokpodji has the potential to attract a diverse range of people and activities- these include fishermen, tourists, small local businesses, artists and tradesmen, farmers and...

### **At a smaller scale...**

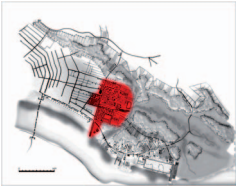
By providing local level infrastructures and services such as a health centre, schools and colleges the local community will benefit from increased levels of connection and interaction.

## AT THE HEART OF THE PROJECT



We have decided to take the stance of concentrating urbanisation in continuity with the existing built fabric of the city in order to preserve natural green spaces and the Donoukin Valley.

We have therefore identified two areas of potential development which firstly extend the area of Agboukou, and secondly expand the existing village- an area currently occupied by fishermen and small scale agriculture.



### **A campus integrated within the city and extends the area of Agboukou**

Along Road 230, creating a key axis. Within this area the varied range of campus buildings, public spaces and areas of agriculture are woven into the urban fabric. This may include administrative buildings, laboratories, teaching blocks, workshops and a public library. Future developments could include a hotel, accommodating visitors to the area. We would envisage the campus teaching a range of subject areas which respond to the wider environment. This may include: Agricultural and environmental sciences, hydrology, ecology, sustainable architecture and construction.

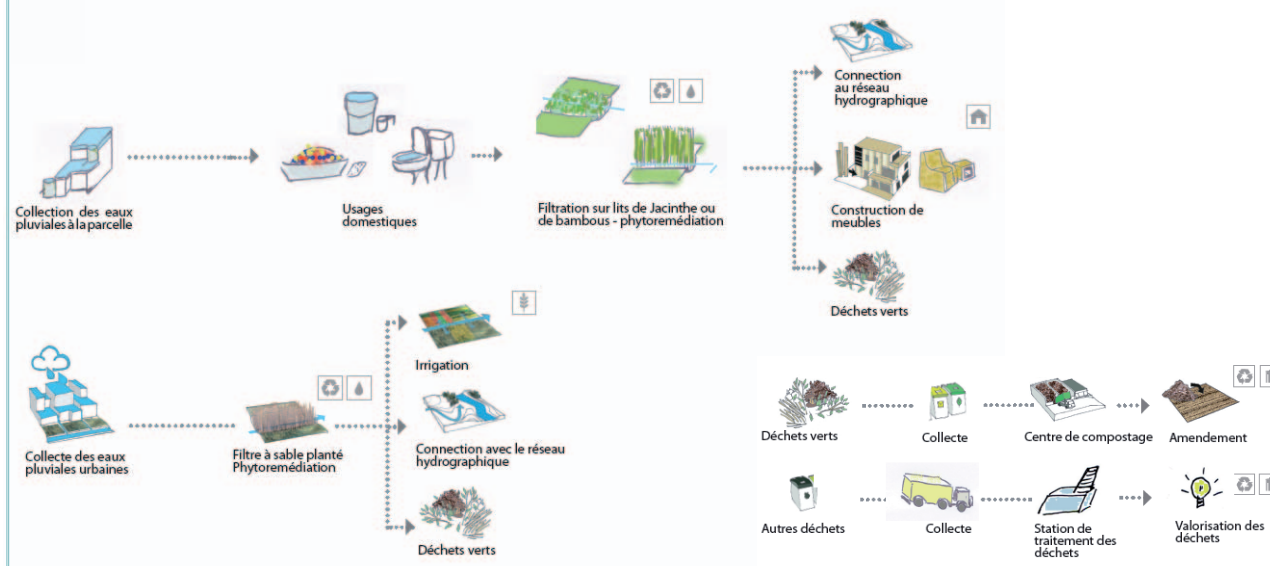
Larger buildings and focal points are orientated along the central axis whilst a green corridor and areas of agriculture form the transition and buffers between the urban environment and the Green Heart of the Donoukin Valley beyond.

The existing areas of wetland which link the urban edge to the green valley act as green corridors, penetrating the built environment.

The southern end of this axis opens out into a large public open space on the lagoon front. This forms a key transition into the area of Lokpodji, both for those entering by boat and by road.

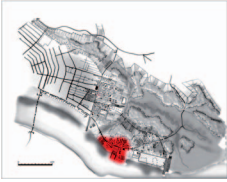


### **Water and waste management for the new neighbourhood**





## AT THE HEART OF THE PROJECT



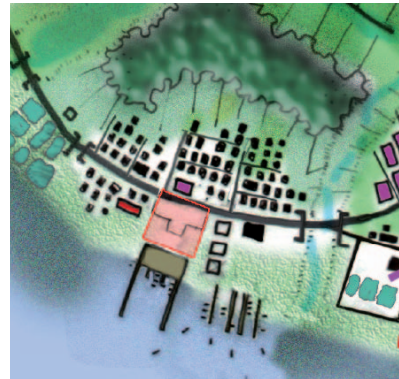
### **A fishing port and local village market**

The existing fishing village is integral in the existing community of Lokpodji, its presence reinforces the strong relationship that the area has with the lagoon. It is this relationship and heritage that connects inhabitants to water that we aim to reinforce and strengthen in order to ensure the strong identity of Lokpodji long into the future.

We recognise the symbiotic relationship that the existing community has with the lagoon and therefore would not relocate existing inhabitants. Instead we would propose new 'amphibian' structures and houses with future growth being located to the north of the existing road. This strategy would aim to prevent development on the lagoon banks, therefore protecting the lagoon ecosystem and reducing risks of flooding.

However the character of the lagoon banks will be maximised in order to take advantage of fishing based infrastructure. Such infrastructures would include small jetties and areas to maintain and house boats, all within easy access to the lagoon.

The central public space in front of the existing buvette would be the site of a new market which would extend into the lagoon. This would mean that the market place would be easily accessible by boat and remain functional in times of flooding and inundation. The former Copacabana hotel, which is prominent on the lagoon bank would be reinstated as a restaurant and therefore further enhance the character of the market and banks.



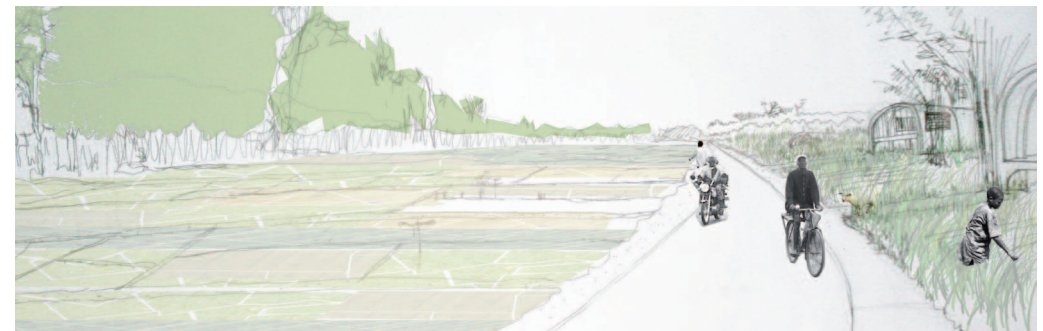
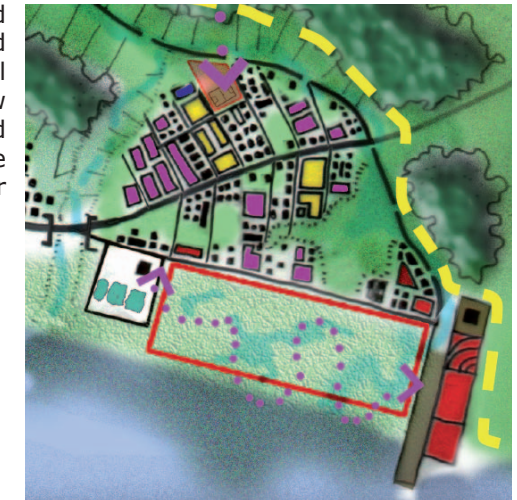
### **An area dedicated to a range of recreational, economic and educational uses**

This area is framed by the Donoukin valley and serviced by a new road and bridge, connecting it to the wider city. Urban growth identified in this area would occur gradually, over a long period of time would be less dense in character.

The aim would be to prioritise public services such as:

- Supporting local business: growing wood and raphia (for construction), agriculture, exploiting potential uses for water hyacinth, and market gardening.
- Schools and training colleges (with a focus on agriculture, fishing and ecology/environmental studies)
- Sports and leisure facilities
- Health facilities

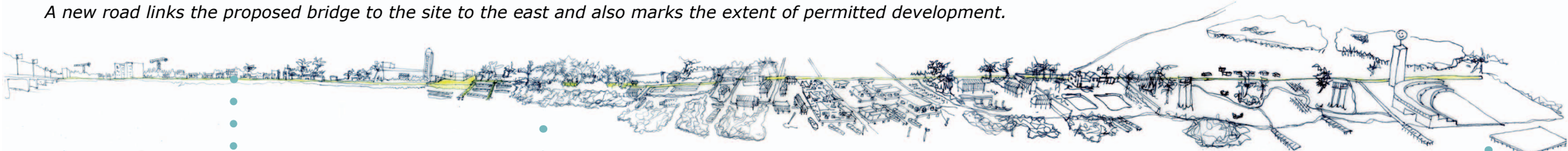
Such services would come hand in hand with campus based infrastructure and investment and would aim to balance local and city-wide needs. At a local level new infrastructure and development would respond to community needs and not be out of character with the less dense, smaller scale.



## MANAGEMENT OF THE LAGOON BANKS

The lagoon banks are of fundamental ecological importance and constitute a complex ecosystem, cultural landscape and recreational resource for the entire city. It is this land/ lagoonscape which has sculpted the rich cultural heritage of the city and must therefore be placed at the forefront of protection and management strategies in response to the expanding growth of the city. In order to ensure they are fully protected yet integrated into the identity of the modern gateway of the city we have proposed lagoonside parks, habitat protection zones and recreational infrastructures.

A new road links the proposed bridge to the site to the east and also marks the extent of permitted development.



### **Protected wetlands**

A wetland corridor creates a separation between the two areas of Lokpodji.

### **Lagoonside Park**

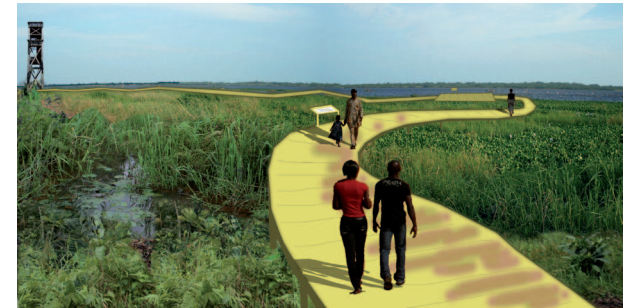
The majority of the banks will be managed through the establishment of lagoonside parks which both protect the existing ecosystem and offer opportunities for education and public enjoyment. A network of boardwalks and interpretation boards inform visitors of life on the lagoon.

### **The promenade**

The lagoonside promenade forms the link between the new bridge and gateway to the city with the western edge of the site and the gateway to Lokpodji. As well as increasing recreational access to the lagoon edge it can also host a range of cultural and exhibition spaces and resources.

### **Central public space**

The lagoon banks form the transition and a concentration of activity around the village market and fishing community.



### **An urban landmark to mark the end of the city**

The Lagoon Park opens out onto a land mark and focal point within the site. Located on the former site of sand extraction this modest wooden viewing tower allows visitors to experience views across Lokpodji, the Donukin and the lagoon.

At the base of the tower lies a complex of recreational and cultural buildings and a jetty which will be constructed over time as the area develops.



# MASTERPLAN

types d'aménagement	ha
habitat	18
université	12
tourisme et loisirs	34
stations d'épuration	2
autres équipements	7
agriculture	232
espaces verts	17
voirie	60
berges	115



# PHASING

## Until 2015...

- Data collection (technical, social and economical)
- Firm urban (flooding, buildable and green areas) and architectural rules;
- Business plan; Planning of the neighbourhood and campus framework; Information and awareness meetings, workshops with local communities;
- Allocation of agricultural areas; End of sand extraction permit.
- Start domestic planning.

## Until 2020...

- Structural works (urban and agricultural infrastructures) ;
- Construction of first buildings (multimodal market, schools, technical high school, green pathways, lagoon park, local enterprise, jetties, etc.);
- Reinforcing the agricultural activities.

## Until 2025...

- Preliminary works of infrastructures (bridge, campus levelling etc.);
- Densification of housing;
- Start of tree planting in the town centre.

## Until 2030...

- Ending of major projects (bridge, campus levelling, etc.);
- Massive tree planting in the town centre.

## After 2030...

- Elimination of Hyacinth in the lagoon;
- Green belt reaches Nigeria; International Campus recognition;
- International Porto Novo's shining for its great quality of life.



The green belt in 2030









# D

## TEAM D « Team Olo »

Name	Speciality	Nationality	Age
ANDRE Amélie	Architecture (ENSANantes)	France	26 ans
REDDISH Elspeth	Landscape Architecture & art (Sheffiled)	UK	24 ans
ADJATI Elie	Architecture (ESIAU) et Ingénieur (Bénin)	Bénin	36 ans
MOCHIZUKI Mai	Architecture (University of the Arts)	Japon	28 ans
BOGNON Sabine	Geography & urbanisme (IFU & LATTS)	France	24 ans

# Lokpodji's Relationship to the City



## LOKPODJI - PORTO-NOVO : PHYSICAL LINKS TO TAKE PORTO-NOVO BACK TO ITS CAPITAL CITY STATUS

### The Water-way

- Lokpodji is oriented to the lagoon (pontoons and wharfs).
- Implementation of the latitudinal exchanges : from Nigéria to the western towns of Lake Nokue, via Porto-Novo (violet arrows).

### Access to Lokpodji

- Main transport road (red), tarred to give easy access to all main points of Lokpodji. Motorized users (including trucks).
- Internal road network. Primary road in orange. Secondary roads (light motorized users). Tertiary roads (pedestrians and cycling).

### Integrating Lokpodji with Porto Novo

- Donukin depression : included in the global planning and considered in the design, although not taken as a major space to urbanize.
- Second bridge (red dashed line) : we keep in mind the location proposed by the *schéma directeur*. It would provide another access to Lokpodji and beyond.

## LOKPODJI, A COMPLEX ISLAND IN PORTO-NOVO METROPOLITAN AREA

The new Lokpodji is developed in echo to the ancient city-center. We wish to preserve the specific character of each interior island.

### Green productive island (the King's Garden)

Agricultural and productive reserve.  
Low modification of the current environment.  
Low density.

### Lagoon side

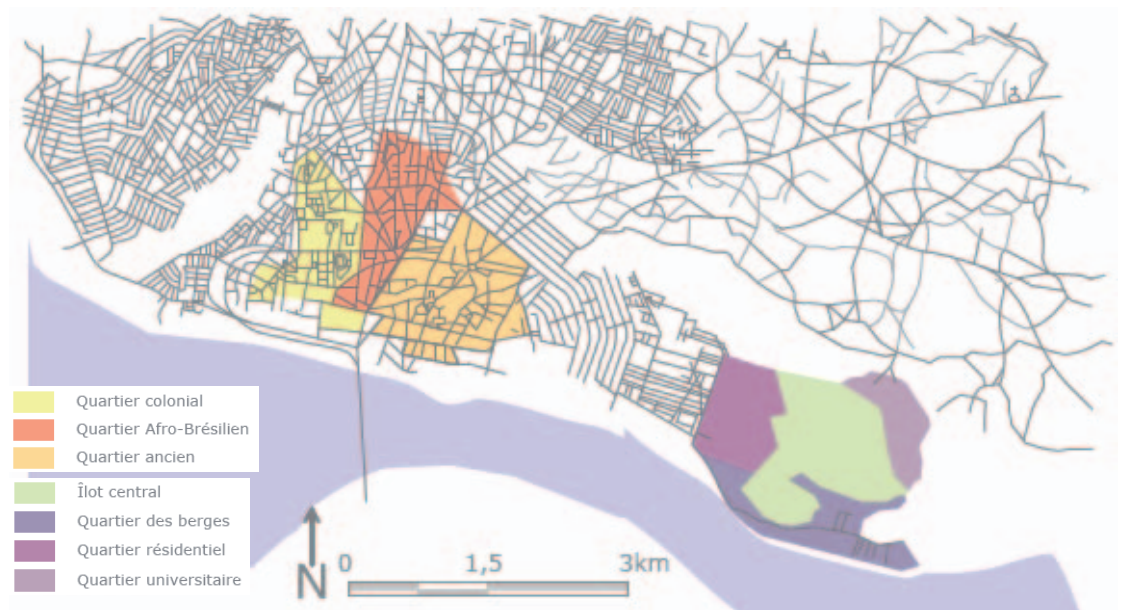
Preservation of natural heritage and ecosystems.  
Retain existing settled populations (i.e. fishermen's village).  
Eco-touristic and economic attraction (trade, craft...).

### Residential area (Urban extension)

Densification following the actual urban trend as an extension to the current eastern edge of Porto Novo.  
Portonovian way of life.

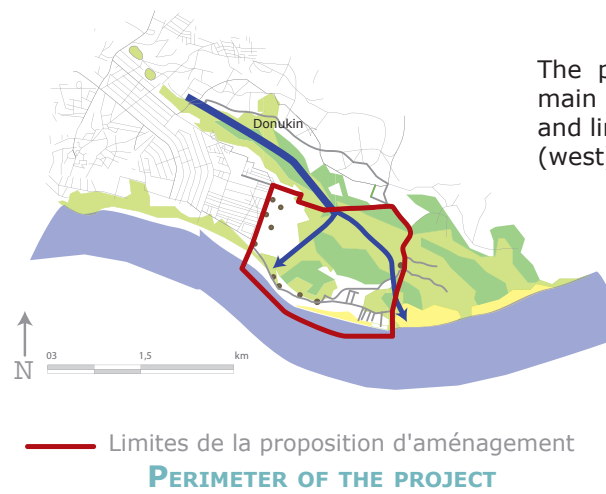
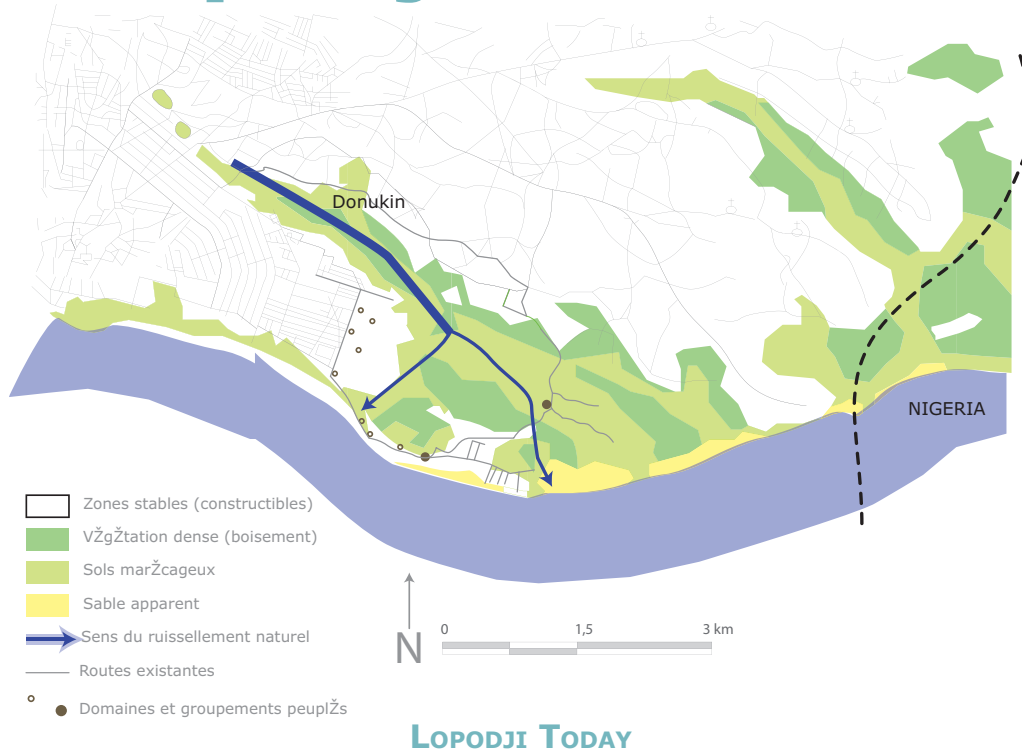
### University campus

«Brain attraction». Environmental sciences and sustainability subjects.  
Possible development in Adjarra?

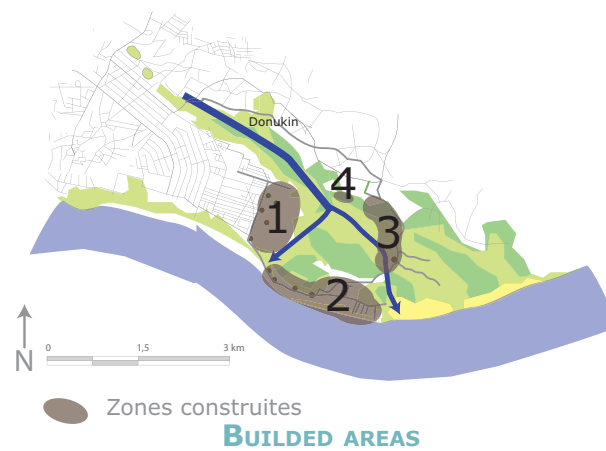




# Lokpodji

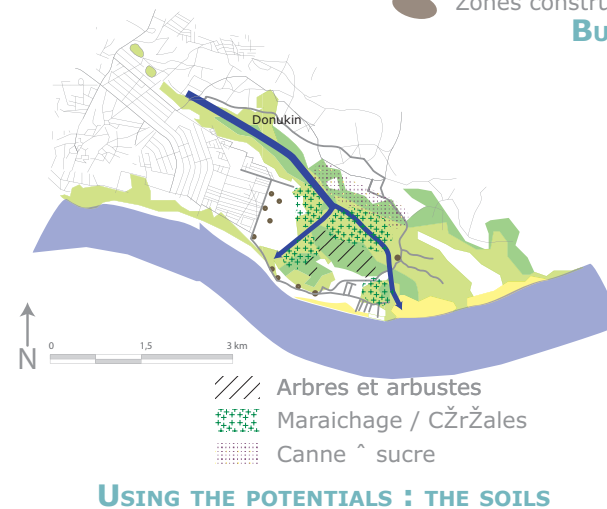
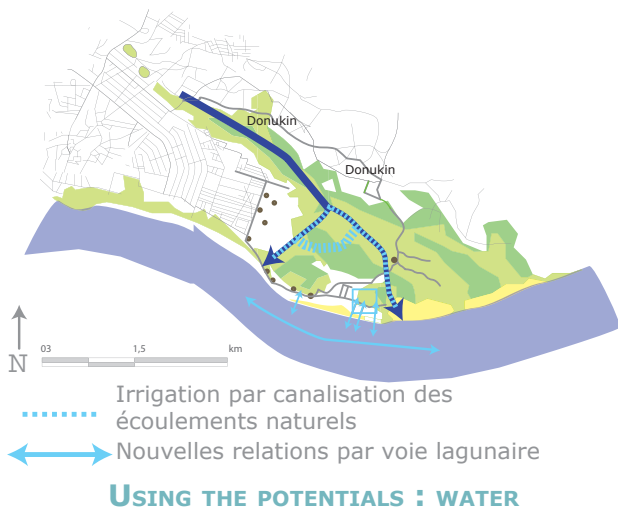


**Site Boundaries**  
The planning project is edged by the main transport road (north and east), and limited by the actual urban-frontiere (west) and the lagoon (south).



## Integrating the existing conditions

1. Dense urban extension, continuing the existing residential area.
2. Lagoon side neighbourhood built on stable soils. Cautions taken against seasonal flood risk.
3. Architecture very aware of the instable soils (marsh).
4. Small built area, with entegrated agricultural production, low density and basic urban services.

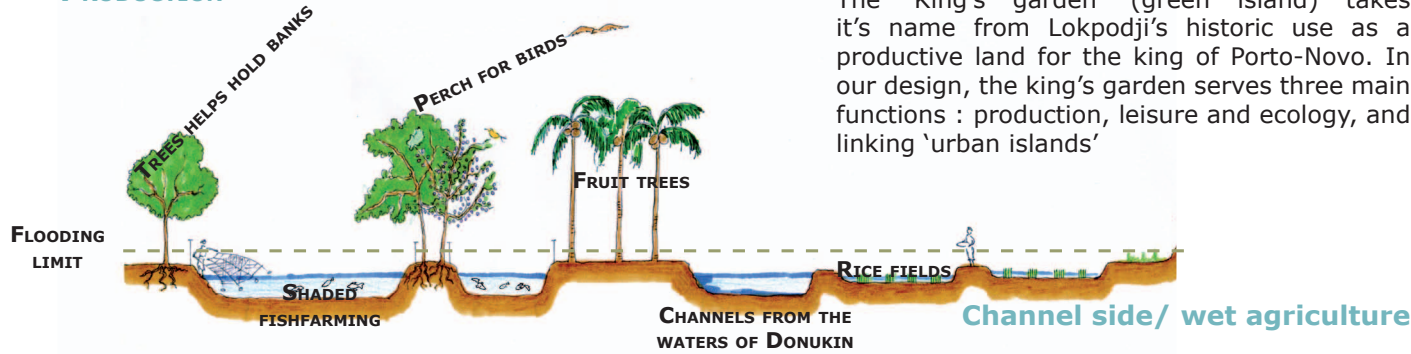


## Making the wetland a major asset

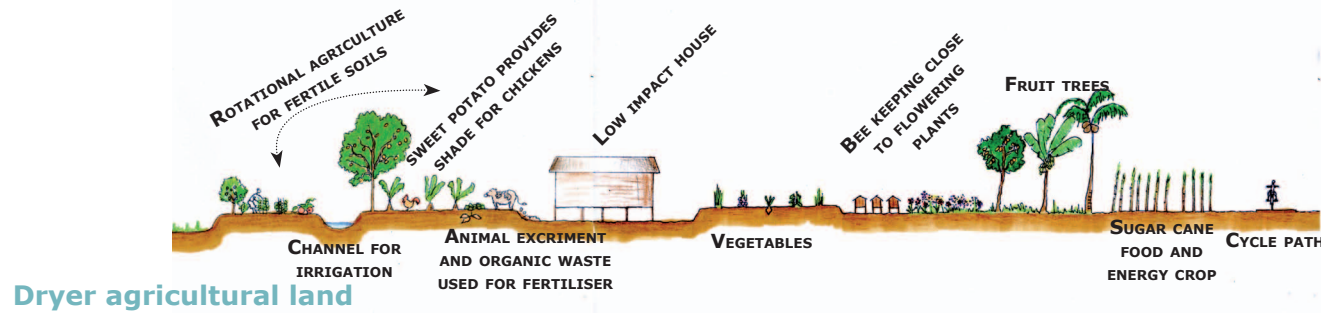
- Water drainage channelled to irrigate productive lands and create a pleasant landscape.
- The lagoon offers news possibilities in terms of trade and accessibility from west to east..
- Every kind of land is used for its unique character to produce adapted food goods.

# Green central island

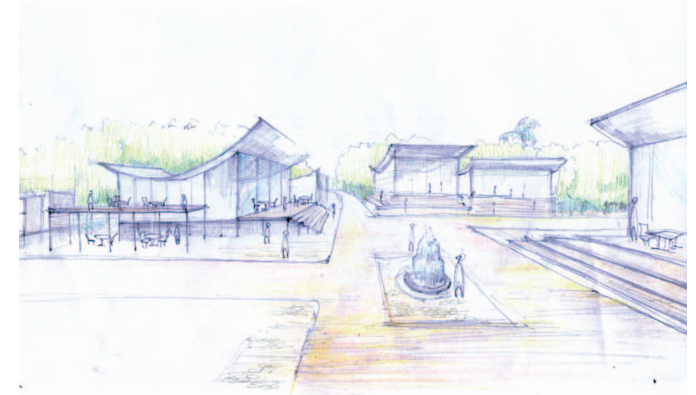
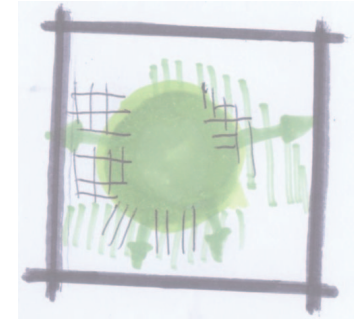
## PRODUCTION



Channel side/ wet agriculture



Dryer agricultural land

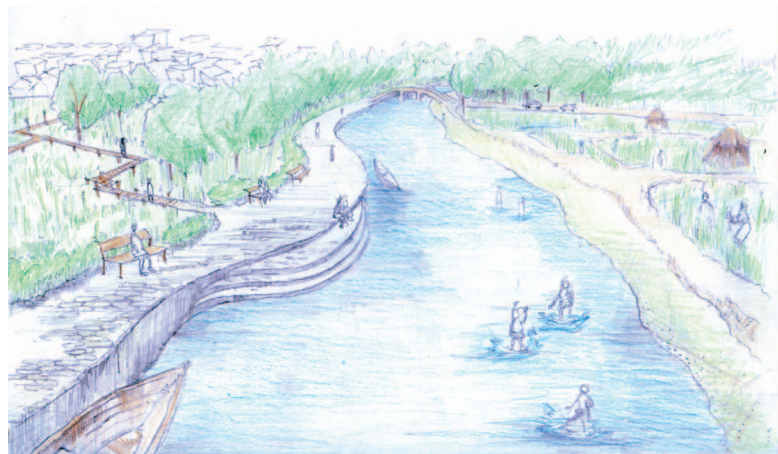


COMMUNITY HUB

## CONNECTING THE URBAN ISLANDS

With shops, schools, urban squares... the community hubs help bridge the main urban islands and connect them socially. Raised platforms provide sitting and social opportunities, whilst keeping shop stalls dry during floods. Underspace can be used for storage during dry seasons. The main buildings open out onto the squares to create vibrant, welcoming community spaces.

There are attractive pedestrian and cycle routes through the green island to further connect communities; and visually, the vegetation bridges and softens the boundaries of the urban islands whilst conserving key ecological routes.



## WATERSIDE PARK

Waterparks are attractive settings for leisure: playing football, socialising, swimming, taking a walk... The water channels along here widen into larger pools to help reduce flood risk, whilst vegetation cleans water run off from urban areas, and provides for wildlife.



# Lagoon side

## MARKET PLACE AND ECOLOGICAL TOURIST ATTRACTIONS

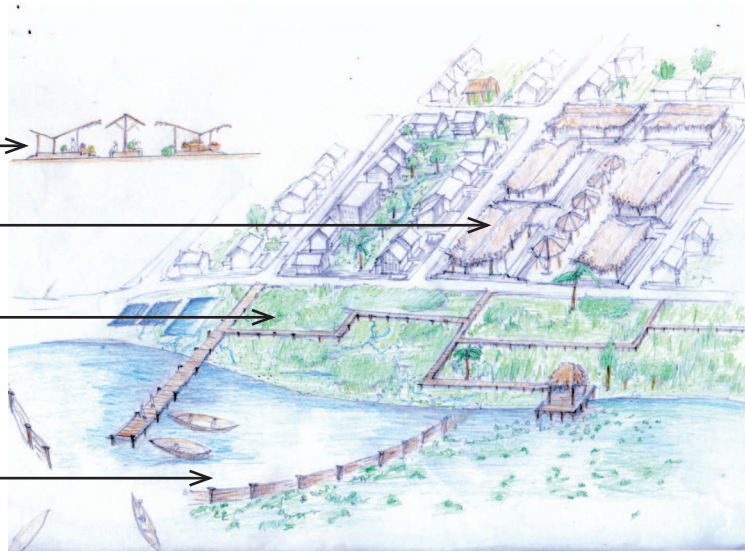
Market Stalls



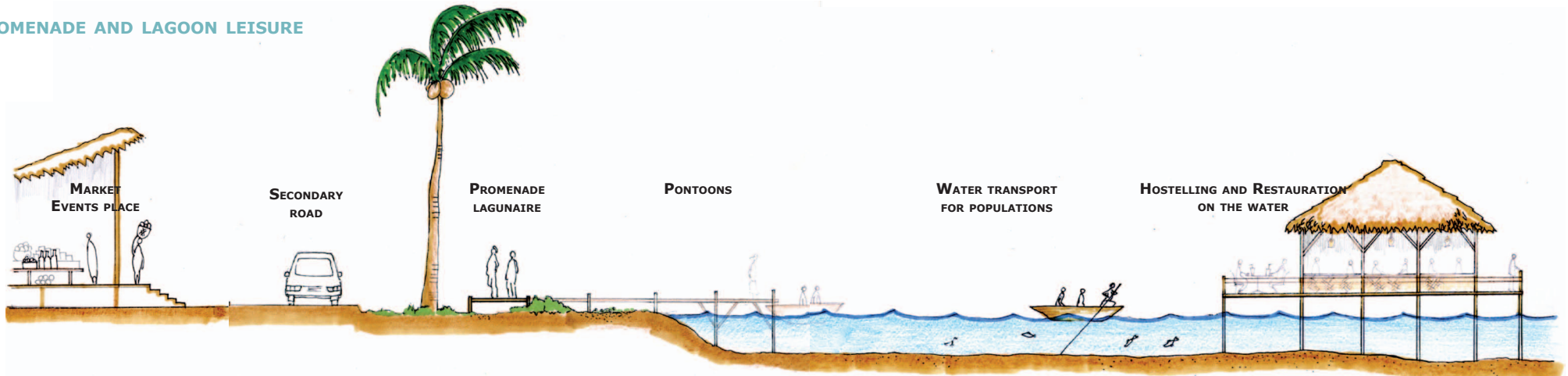
Market place connected to port agriculture and creative crafts

Ecological walkways, strolling along the lagoon banks, view points and wildlife spotting

Tourist port: boat trips on the lagoon and to Aguegue



## PROMENADE AND LAGOON LEISURE



In this area, life is based on tourism and already existing activities (fishing). Inside the neighbourhood, building density is quite important (caution is taken against flood risk) in order to keep large open spaces that the population can use freely and invest in.

Promenade ways on stilts along the banks facilitate a respectful ecotourism.

Small wharfs, linked to the promenade mark the end of long vistas which boast open views to green spaces and the lagoon.

Transport on the lagoon facilitates tourism and local travel: taxi-boats, and ferry boats compliment the potential new bridge.

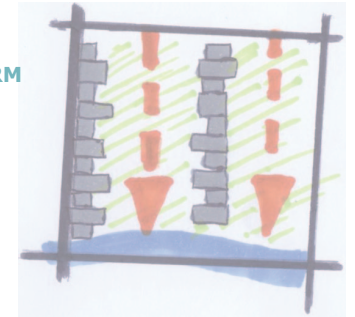
Low impact tourism on the water (see Aguégues architectural model)

## ECONOMIC AREA - TRADE PLATFORM

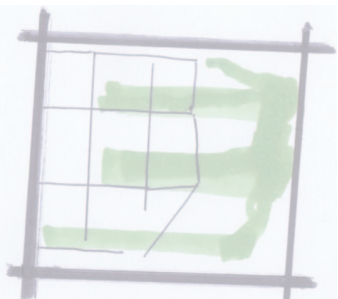
We have preserved the existing sand extraction business for a certain period of time (1 year) as a first activity to attract people into this area.

A main transport road for cars and trucks gives easy access to the area, and eases transport of goods from a new low impact, small port.

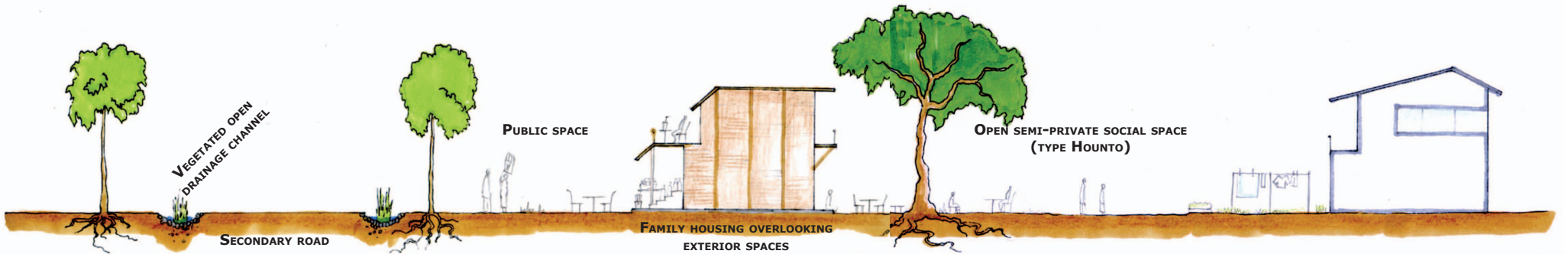
Storage warehouses are located on the crossroad between the main transport road and the lagoon wharfs, with a parking area for trucks. A franc zone and policing of trading brings new revenue for public powers and private investors.



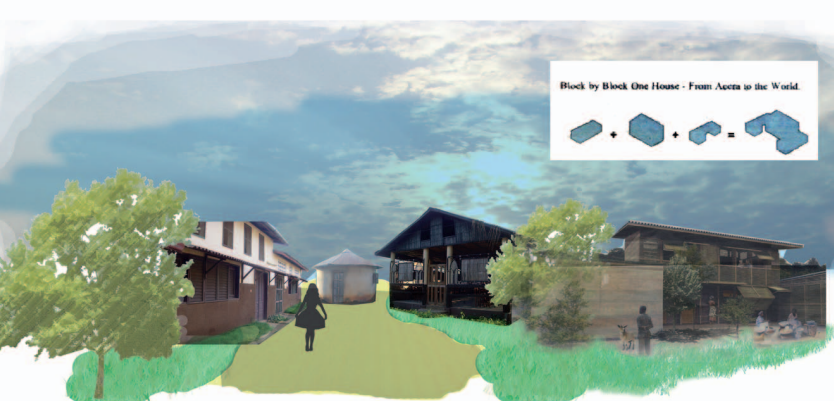
# Urban extension



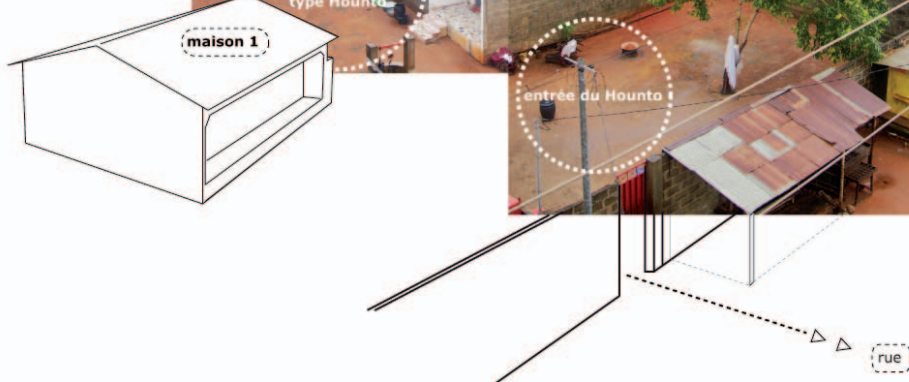
The urban fringe (3000-5000 inhabitants) is an extension of Porto-Novo. The buildings and streets are laid out to cater for and celebrate the outdoor african life. Buildings are set back from the street at fluctuating distances to preempt gathering and social opportunities. Street trees make the roadside setting more attractive, and open drainage channels reduce flood risk. They are a cheaper option from closed channels and are more attractive when low maintenance plants have established especially when in flower.



Semi private courtyards offer alternative walking routes from busy roads as well as more intimate spaces for socialising, eating with friends, playing tablefootball, and hanging out. The architectural style and urban form mimics that of the existing and well known Portonovian way of life.



There is a possibility to use a 'new' architectural style, which we propose in areas in the lagoonside development. Sustainable materials such as wood and bamboo are mixed with earth and cement. Combining traditional styles, cultural needs and modernity. Rooms can be 'flat packed' to allow for growing and shrinking 'family' units.



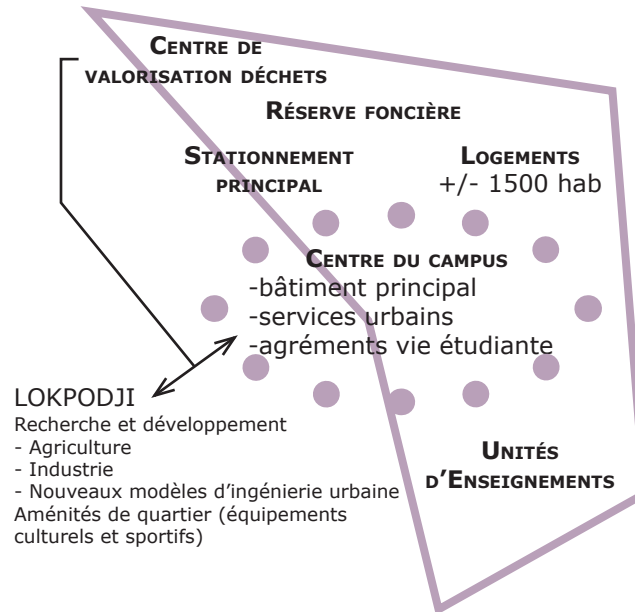


# The university campus

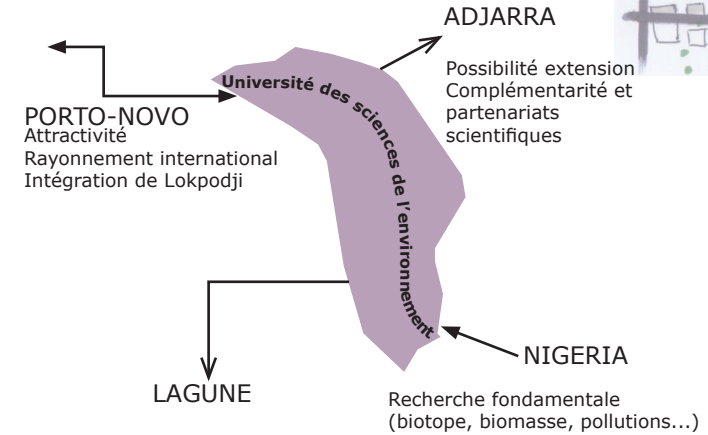
## UNIVERSITY ISLANDS

Here again, we use the concept of the island. The transport and pedestrian ways all lead to a dense, functional, central square which would represent the main island. From here, a range of services are centred including a stadium, park and shops. A woodland is preserved as a reserve for future development, and existing dense vegetation is enhanced giving the campus a strong green identity.

The waste treatment station is one example of our plan to integrate the campus' research into the urban form and landscape. Other potential areas of involvement the lagoon ecology, water treatment and power generation.

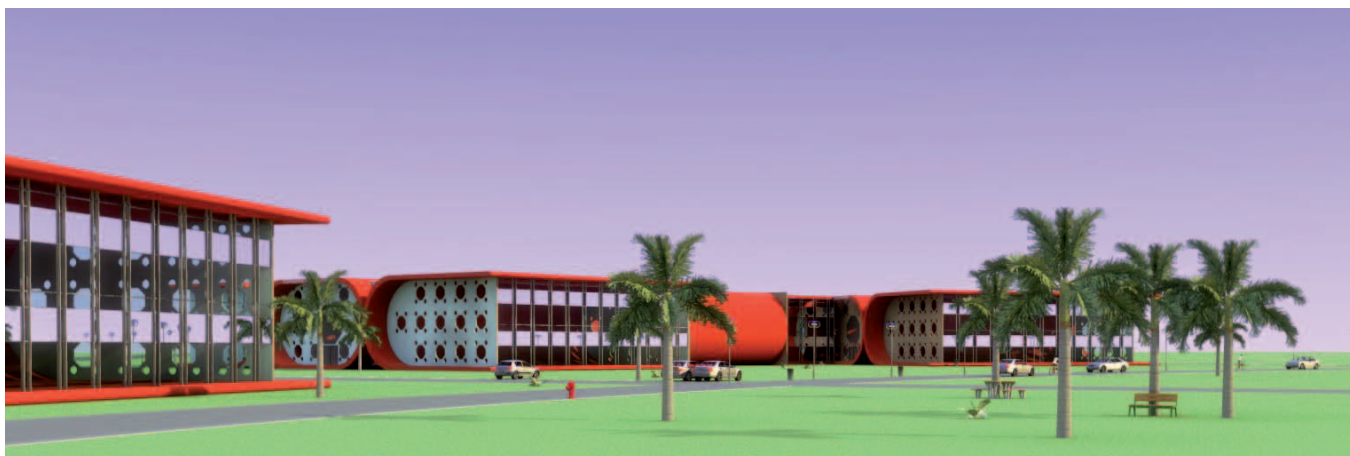


## VARIOUS WAYS ATTRACTIVITY



The campus is at the edge of our site boundary and acts as a self contained settlement. We do not wish to isolate the neighbourhood, but want to keep a certain autonomy for the space, whilst maintaining strong links to the rest of the area.

Teaching and research subjects are oriented to environmental sciences, knowing that they are not considered as a full and proper study subjects. Porto-Novo could act as a pioneer to a new teaching approach whilst improving its national and international attractivity, aided by strengthened links to Nigeria and Adjarra.

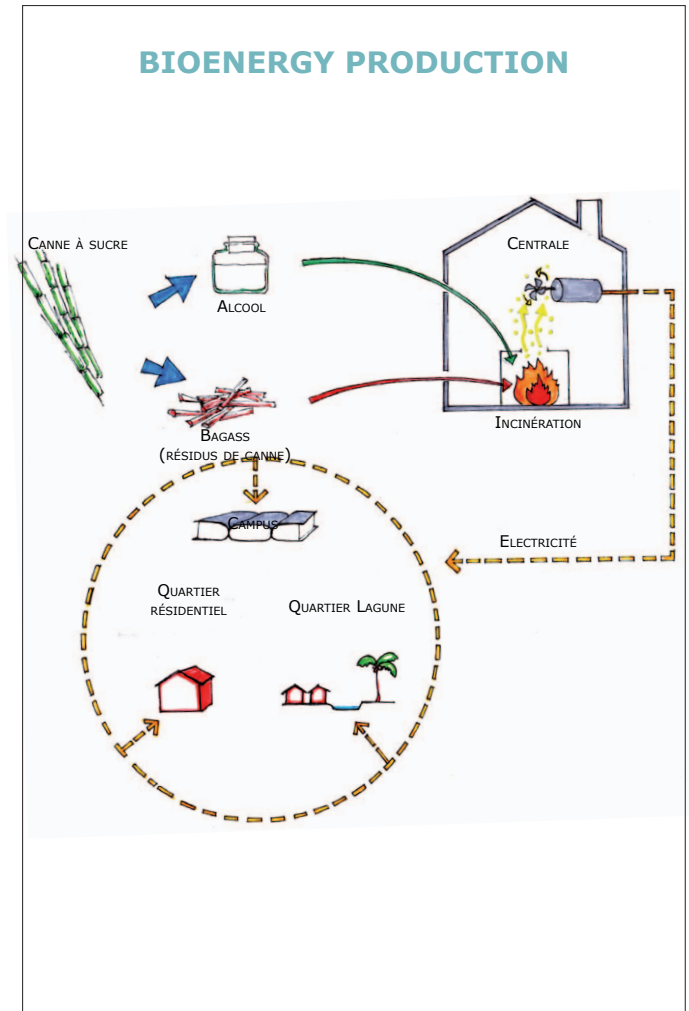
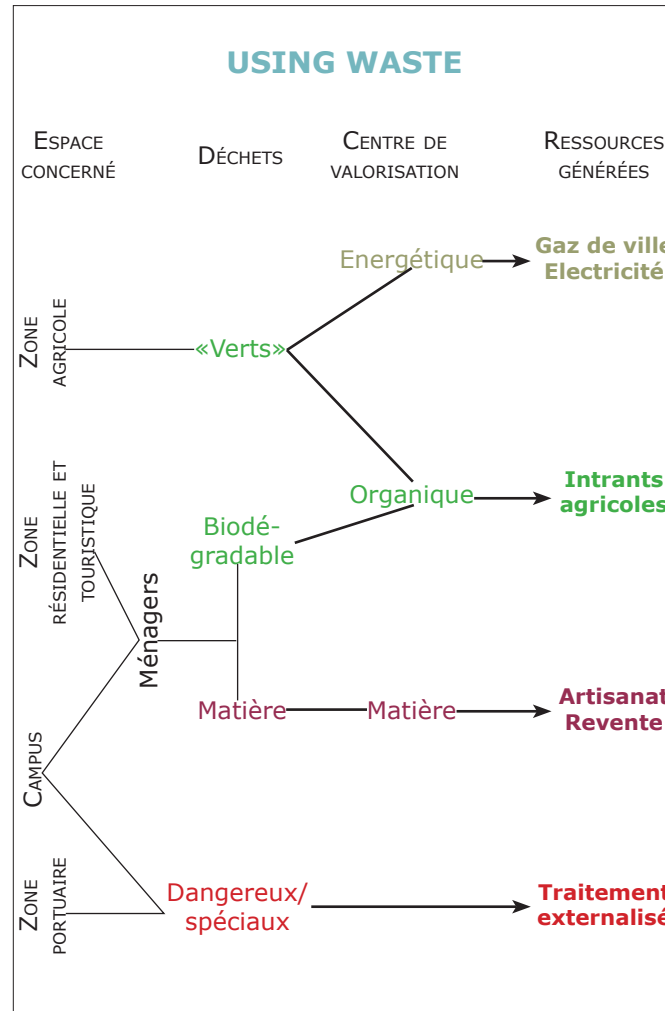
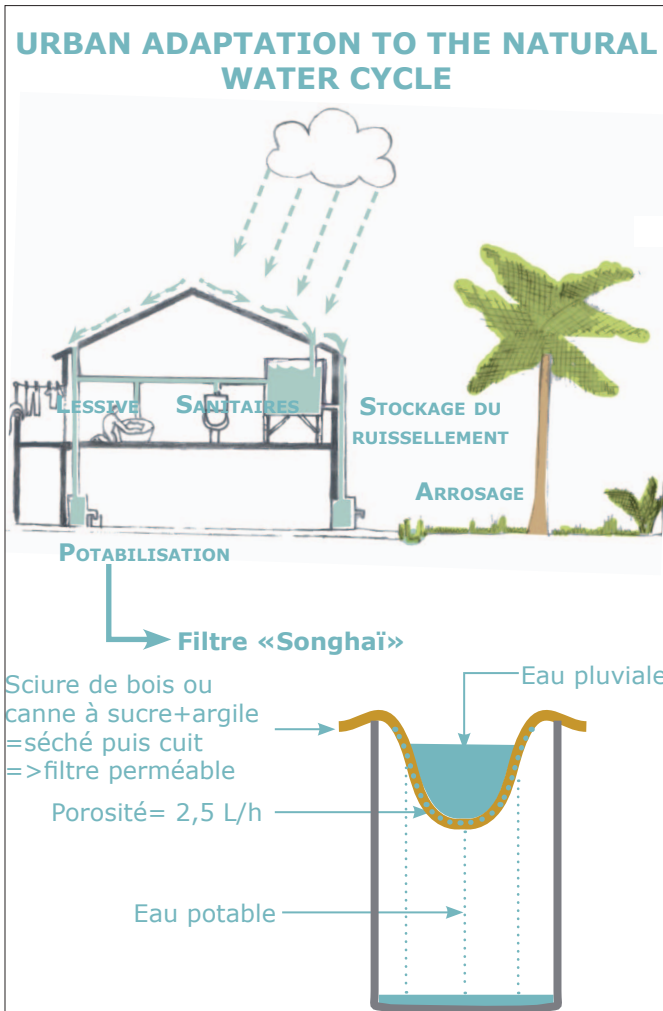


## CAMPUS DESIGN

The morphology of this island is complex : marsh soils and woodlanded, important domain in the east. Urban design and architecture would have to be thought about wisely and considered carefully.



# Innovative infrastructures



Urban engineering, conceived in Europe (19th century) and used worldwide since then, is today questioned when thinking about a sustainable urban evolution. The small solutions we offer here are included in that trend which looks for affordable alternatives to the classic 'pipe model'.

The infrastructures participate to the self-sufficiency of Lokpodji by generating work and capital. They are based on affordable, efficient and well known techniques. The action scale is local in order to avoid spending too much money on enormous metropolitan infrastructures. Helped by public funds, a certain local self-gestion is possible in order to work constantly with the needs of the neighbourhood.

Utilising naturak cycles is the base of the thinking. The methods are easily reproduced abroad and avoid most of the local environmental risks (here: water pollution, flooding, fire...).



# The Masterplan



## PLANNING REGULATIONS

For urban planning to be successful, rules should exist to control and monitor future development. We propose that the municipality buys the land of the 'King`s Garden' and rents it out, preventing unregulated building.

We have identified two suitable and likely areas for further development post masterplan. The area to the North of the green island, and the area East of the campus. Unplanned development should be prevented in these areas. One way is for municipalities to own the land and sell and rent to new owners with laws and restrictions in place. Laws can include certain conditions such as the payment for infrastructure by specific development types.

## PHASING



1) Rent agricultural land (1-5 years)



2) Develop lagoonside, port, power production and recycling (2-5 years)



3) Develop Urban Fringe (3-10 years)



4) Develop University (15 years)







# JURY

# THE JURY'S DELIBERATION REPORT

The committee was co-presided by Moukram Oceni, Porto-Novo's mayor, and Luc Rimbault, Les Ateliers's administrator, representing President Pierre-André Perissol. They wished to welcome the West-African Planning's workshops, which organized its very first session.

With 27 members from 7 different countries, including 5 West-African universities and graduate schools, the committee stressed that all the propositions from the 4 different teams showed maturity and quality. Taking chances on youth is always rewarding : Young people need to be trusted in their capacity to bring forth groundbreaking answers to the questions raised by the urban world's increasing complexity.

In the light of the intensity and complexity of the debates, the committee pointed out the genuine contribution of the different teams, underlined every project's highlights and new ideas, and the audacity of some groundbreaking points of view that helped redefining the major urban issues, which can't be settled in a simple way.

After underlining every team's professionalism and the high standard of their work, the committee decided to award the « Ogbame » team with a first prize, praising how their project perfectly integrates in the environment, how respectful it is to the site, its uses and highly fragile natural balance.

A second-prize (tie) was awarded to the three other teams which all really helped contributing to the suggestion box that was given to the Mayor of Porto-Novo after the Workshop's session, in order to create the planning project of the new Lokpodji district in Porto-Novo.





## Committee's First prize : Team C « Ogbame, the dale »

The project was realistic, consistent, well-integrated inside the location despite its constraints, and respectful to its environment. The team showed boldness in their proposition for a subtle and reasonable development, based on the reality and frailties of the area.

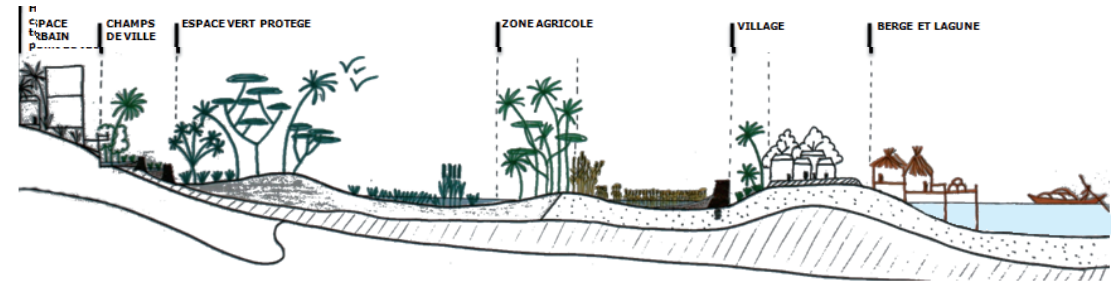
The proposition to create a **450 ha natural park to preserve the biodiversity** and the natural wealth of the damp zone, and the proposition to **keep it a flood zone** in order to answer the future global warming issues, were said to be daring regarding the urban issues that such a proposition would raise, and the rising pressure of the housing's development.

That proposition puts a tremendous emphasis on the ecological approach; The opportunity to create a natural park in the south region of Benin, which is very appealing for tourism, needs further analysis.

The project shows an important will to tame the urban extension, and to create a **clear-cut limit of the East agglomeration**.

**Linking the new buildings to Agbokou's existing ones**, that proposition reduces the construction and the space consumption.

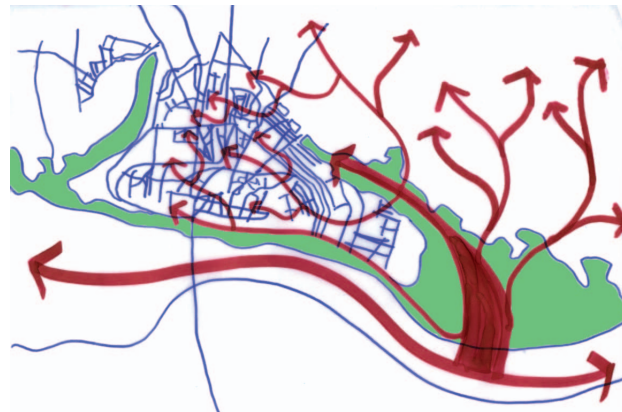
The « following the water course » methodological process was said to be relevant and educational, because water is the site's first structuring element. The project allows an increasing quality of the life environment, proposes to create an Agronomics, Environment and Landscape University that is efficiently set in the city and the existing urban fabric. Its was also pointed out that a multimodal market, on earth and on landing stages (on the lagoon) would help the development of a specific local economy.



« Following the water course », the urbanisation respects it, from the plateau to the lagoon.



This illustration was presented at the end of the team's presentation and caught the committee's attention.



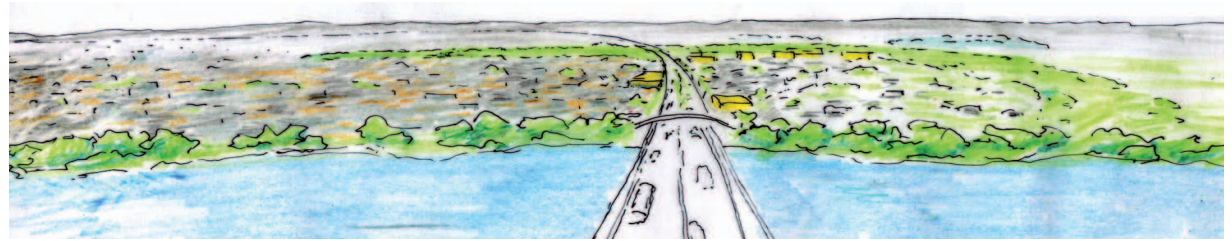
The Lokpodji territory is like an interfacing area between the Lagoon and Donoukin.

## TEAM A « The Capital Gates »

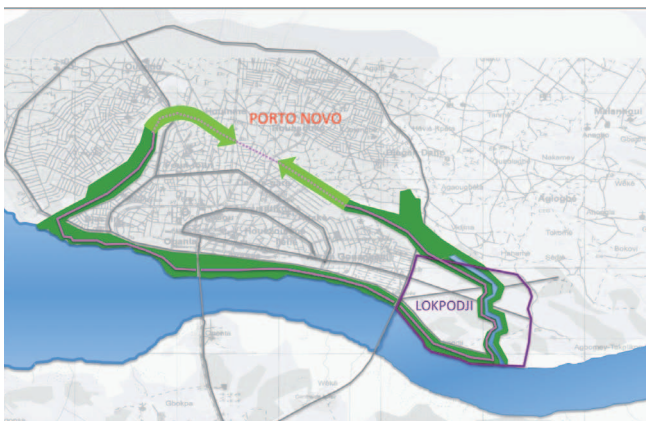
The concept of transforming Lokpodji into a new gateway to the capital city, by road and by river, was said to be relevant and the proposition to create a new grand entrance into the capital was qualified as ambitious.

The jury underlined an interesting global approach towards mobility issues, whether they were related to time or space, as well as the multimodal approach and the quality of the new urban fabric. The following propositions caught the jury's attention and created a debate:

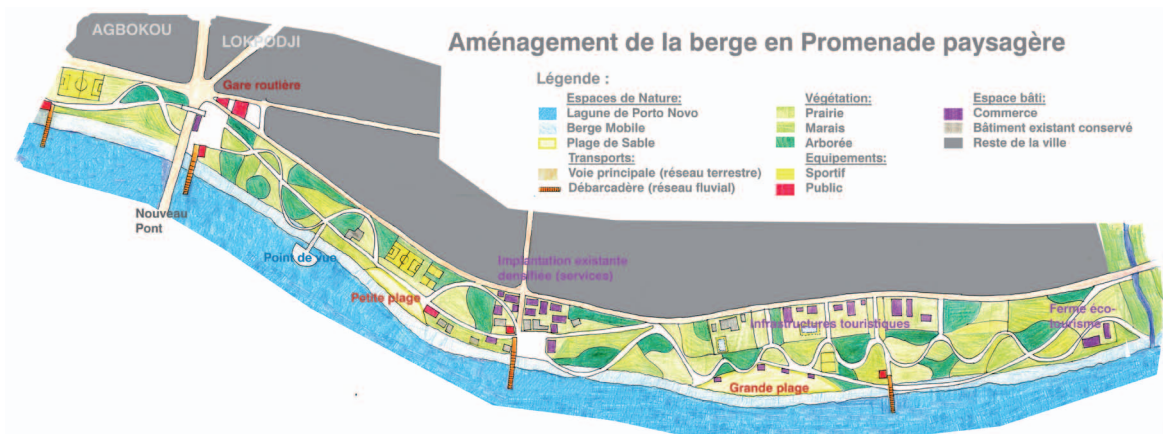
- **Moving the second bridge project to the East**, next to the ring road, and the project of **building a third bridge by 2050**. Whether it is relevant to adopt a long-term strategy about road infrastructure or not is a question yet to be answered.
- Improving and extending the railways.
- Building a river harbor of limited capacity in order to preserve the lagoon, in the shape of several landing stages for the passengers and local trade disembarkment; a cargo port is being built in Semé Kpodji. The committee reminded the risks to keep the main commercial exchanges away from Porto-Novo.
- Planning **a park on the bank of the lagoon** to connect Lokpodji to Porto-Novo's center. There was a clear sequence organization of the banks planning, with different tourism infrastructures.
- The rising of a second centrality, at the entrance of the new Lokpodji bridge makes it important to find a new balance in the urban architecture of the capital.
- The creation of a « Green belt » around the city's center by extending the Zounvi and Donoukin's dales has to be further analyzed.
- A massive intervention upon the water network with the creation of a canal stood out, as well as the water treatment phytoremediation process using water hyacinths.
- The damp areas construction's propositions were innovative.
- Eventually, the ambition and the quality of the master plan, which presents a decreasing density, well integrated public spaces, and well-balanced implantation of amenities on both sides of the main axis, so as to create a better connection with Agbokou's existing urban fabric, were said to be realistic for a presentation to international financiers.



End of the second bridge, with an extension way between the existing Agbokou district and the future Lokpodji.



« Green areas » of Donouki and Lokpodji, connecting into a green belt, thus settling nature in the heart of the city.



Planned Lagoon Park, open to the public.



## TEAM B « Nukonyijowamonton : a tradition-based development »

The jury enjoyed how clearly this strong concept stood out ; men and women at the heart of the development process, with an important emphasis put on spatial formalism.

The concentric organization around the center, the University, is directly based upon the Yoruba people's tradition. The symbolic dimension is clearly epitomized in a grand scale architectural gesture, the creation and implementation of a tower in the planning design, a new major urban beacon settled in Porto-Novo's grand landscape, bringing forth the concept of an assertive Africa.

The meticulous, almost scientific method of the process, based upon a **reinterpretation of Porto-Novo's seminal myth** was often pointed out. It might have been too strictly applied here.

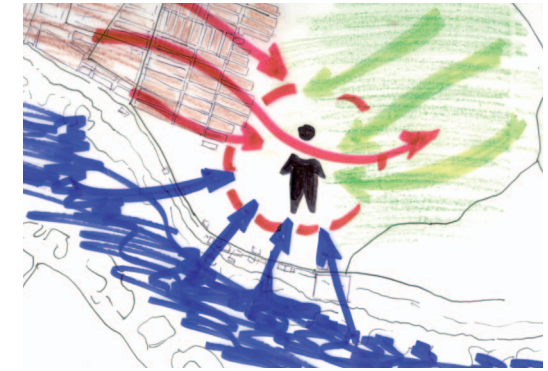
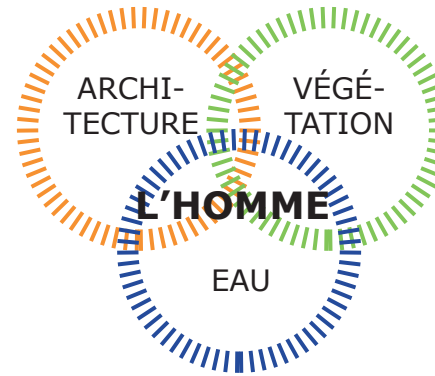
**The interactive approach** between the team and the Lokpodji's inhabitants was a remarkable example of what every planning project should be in the future.

The jury underlined the global design's intelligence and a fine distribution of soils use in this project.

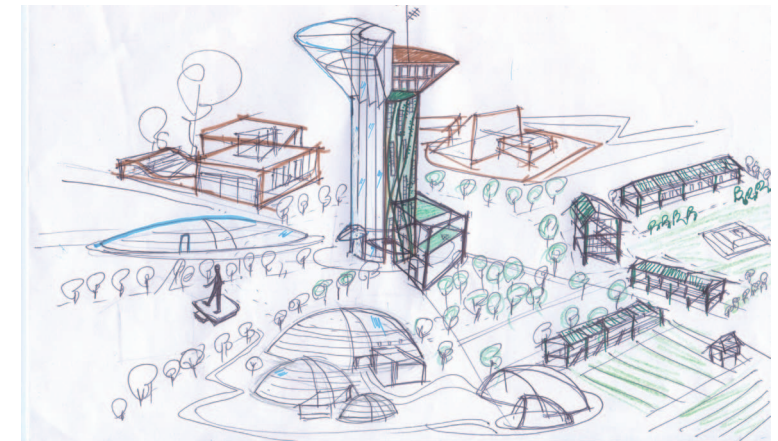
The University, focusing on environmental sciences, stresses Lokpodji's cultural importance inside Porto-Novo, epitomized by two newly built cultural amenities.

**Urban Agriculture** was an important part of the project.

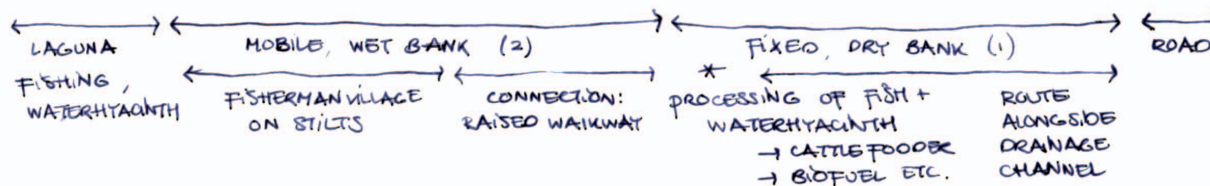
The lagoon banks and the Zounvi and Donoukin dales were thought of as a whole.



Mankind is at the heart of a system made of the site's different elements: water, buildings, vegetation.



As a tribute to the Yoruba's cities organization, a symbolic tower erects from the heart of the concentric design, thus breaking the landscape's even relief.



## TEAM D « OLO, the crocodile »

An archipelago-shaped urban structure, with 4 islands for 4 different urban functions, thus shaping the design in four clear-cut parts, drew the committee's attention. The committee also underlined the acknowledgement of the site's constraints and a contemporary approach towards the sustainable development issues.

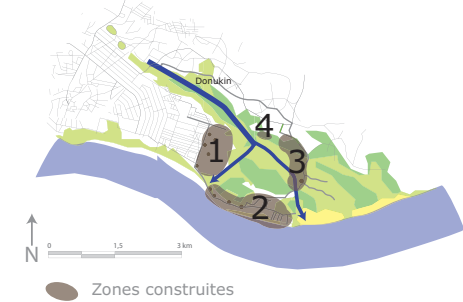
The self-sufficient university of Environmental Science, settled next to Adjara was controversial. There are obvious advantages to build a self-sufficient entity, but there is a risk of becoming secluded from Porto-Novo's urban life.

- **Being self-sufficient in energy**, waste management and sewage treatment is a goal that every planning project should try to achieve .
- **In order to keep control over wild long-term urbanization process**, the proposition to preserve the « non-urbanizable » land, including cultivated land, inside a public management and planning program was said to be extremely relevant.
- The concept of a **transition park** between the agglomeration and the less urbanized area caught the committee's attention, as well as the will to promote a Porto-Novo lifestyle, with the idea of recreating hontos, Porto-Novo's urban fabric typical public areas.

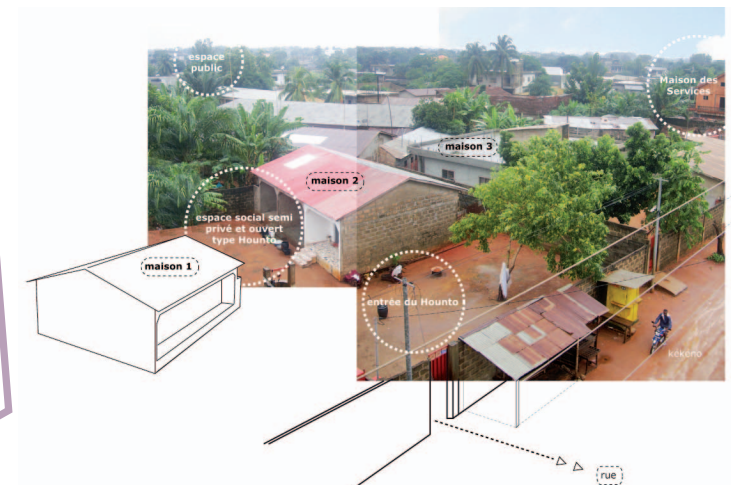
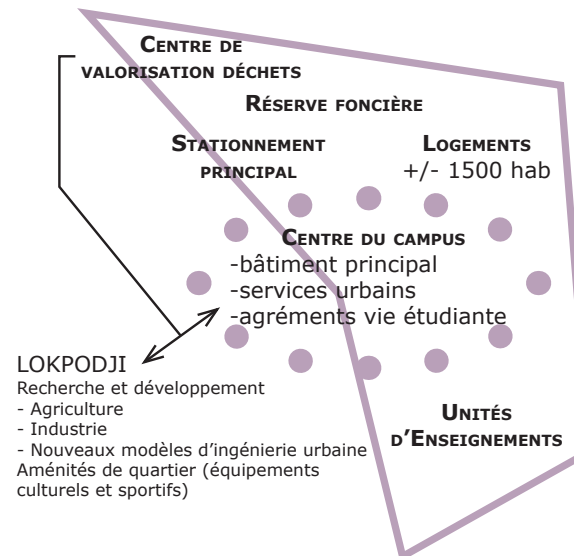
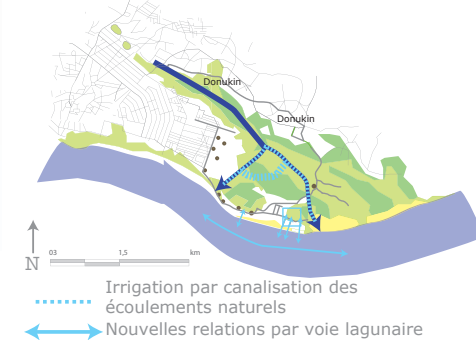
The team made an effort to remain economically realistic with the idea of a **dynamic river trade platform** with Nigeria, and a fine approach of the urban agriculture, bringing forth, for instance, the concept of productive islets. The organization of the activities along the lagoon banks was thoroughly analyzed.



### ZONES CONSTRUITES



### UTILISATION DU POTENTIEL : L'EAU







# ANNEXES







# FACEBOOK THE PARTICIPANTS \_ TEAM A :



## BERTHET Etienne - Agronomist

My name is Etienne Berthet. I'm 22 years-old and I come from France. Having spent 3 years studying biology in Marseilles, I am currently studying agronomy in Paris at AgroParisTech. I hope that my vision as a future agronomist will be able to bring something interesting and valuable to this urban project in Porto Novo.

(AgroParisTech)

France

Age - 22



## BURGEAT- LOPEZ Raphaël - Architect

I am an Architecture student in Paris, who has just finished an university exchange in Brazil last year. Despite my interest in urban issues, I have never worked on the scale proposed by this Workshop in Porto Novo. I'm enthusiastic about the idea of work with people with different skills and other horizons.

(Belleville & Uni  
fédérale de Rio)

France

Age - 24



## CUSCINA Eleonora - Architect/Engineer

I am studying at Sapienza Engineer University of Rome, I am finishing my studies in July with a Urban Planning thesis. I am extremely interested in joining Porto-Novo workshop. My last workshop experiences, in Italy and France, improved my human and professional skills. Working in an international environment allows me to deal with different cultures and backgrounds, discovering new ways of architectural design/urban planning. Being part of a workshop in such a unique working environment as Africa will be a very motivating experience.

(Rome)

Italy

Age - 28



## DJOKOUI Koffi Agbekoh - Architect/Urbanist

Officially I am known as DJOKOUI Koffi Agbékoh, although afterwards society added the name Jean Claude. I am 1.60m in height, a dark complexion, brown eyes, black hair and the start of a balding forehead. I am 24 years old I'm single with no children. Beninese nationality I was born in Togo, where I am currently continuing my studies in Architecture and Urbanism. I love traveling, discussion and design. I love the calm and practical work in teams.

(EAMAU)

Benin

Age - 25



## MEGBOHONNOU Emeline M. - Geographer


Université  
Abomey Calavi


Benin

Age - 25





## THE PARTICIPANTS \_ TEAM B :

	<p><b>ADELOWOKAN Oluwasogo - Urbanist/Planner</b></p> <p>I am a Nigerian, student of Urban and Regional Planning in the First and the best University, The University of Ibadan, Oyo state where I am undertaking my Master Program presently. I was born in 1979. By privilege I operate a small scale planning firm called GeoBez Design &amp; Associates based in Lagos and I always have passion for Urban Planning which cannot be doubted at any moment or any time and i will love to be a part of this workshop. Merci (tel. +234 80 53 72 91 82)</p>
(Ibadan)	
Nigeria	
Age - 31	

	<p><b>AGBODJINOU Koffi Sénamé - Anthropologist/Architect</b></p> <p>Was born in 1980 in Lomé, study architecture and human sciences in Paris. Interested in the aesthetic questions, development of the patrimony, éco concepts and construction in unassuming materials. tel: 0699334247 (for prospective participants of Paris )</p>
(EHESS/Villette)	
Togo	
Age - 30	


	<p><b>DECARY Laura - Urban Economist</b></p> <p>I am a French student at Essec Business School in France and I belong to the "Urban economics" programme. I am keen on tennis, squash, drawing and cinema. Participating in this workshop at Porto Novo is for me a great opportunity to meet international young people like me and to think about a concrete city planning project. Moreover I am very enthusiastic to discover Benin, and more generally Africa, where I had never been before.</p>
(ESSEC)	
France	
Age - 22	


	<p><b>MAPOUKA Hervé Vianney - Architect/Urbanist</b></p> <p>My name is MAPOUKA Herve Vianney, I am 24 and Central African. I am about 1.72m tall. I am a student in the 5th class of E.A.M.A.U (African school for the profession of Architecture and Urbanism). My hair is black, I have brown eyes. I am of a black complexion and I love training.</p>
(EAMAU)	
Central Africa	
Age - 24	


	<p><b>PEREIRA Lilian, dos Santos Fontes - Civil Engineer</b></p> <p>My name is Lílian, I'm Brazilian, I'm 22 years old. I live with my parents and my sister in Belo Horizonte. I study civil engineering at UFMG University, where I work with transport and urban planning. I love what I do. I am a calm person, happy and willing to learn a lot! I enjoy traveling, meeting places, people and cultures, so I am very excited about the experience in Benin.</p>
(UFMG)	
Brazil	
Age - 22	


	<p><b>SCHUT Miranda - Landscape Architect</b></p> <p>As a Landscape Architect, I am fascinated by the potential of (a combination of) landscape and infrastructure to strategically shape both the formal as well as the informal urban environment. I prefer a landscape and thus site and culture specific approach, so I'm looking forward to getting to know Benin better and doing fieldwork together. On a more personal level my interest goes out to (African) jazz, funk and highlife music (I'm a great admirer of the voodoo funk blog!!).</p>
(Wageningen)	
Netherlands	
Age - 24	


## THE PARTICIPANTS \_ TEAM C :


	<p><b>CHENDJOU Corneille - Architect</b></p> <p>As for me, I am CHENDJOU Corneille. A male of Cameroonian nationality, I am nice, considerate, straightforward, and I like to contribute to my fellow 's well being. My companion and Faithful friend of every day is music.</p>
(ESIAU)	
Mali	
Age - 21	

	<p><b>GADY Marthe - Architect/Urbanist</b></p> <p>To introduce myself, I'll tell you a story and my discovery of Les Ateliers urban workshops. July 2009. Air caulked the RER A is moist. Small flags commuters, buildings of the 50s, light yellowish neon stations ... I get off at Nation's red seats and found space. And there on the Wharf, Thibaud, who hands me a book and said: "Here, take a look, it should interest you! I discovered the work of Christian Horn and Les Ateliers.</p>
(La Villette)	
France	
Age - 27	

	<p><b>GRIMALDI Marjorie - Engineer</b> (sciences and technologies of water)</p>
(Polytech'Montpellier & Cranfield)	
France	
Age - 27	


	<p><b>HUONKANRIN Michel - Geographer</b></p> <p>I am a student in physical geographic in the campus of Porto-Novo in Benin. Taking part into the Porto-Novo's workshop is a good occasion for ideas to meet, and for me to rug my by brain against other people's for a urban planning project. Furthermore, I like music, and by the way, I am a vocalist and a guitarist.</p>
Universite Abomey Calavi	
Benin	
Age - 25	

	<p><b>JARNY Olivia - Urban Economist</b></p> <p>Hello, my name is Olivia, I'm 24 and am originally from the suburbs of Paris. I am a graduate of ESSEC, a business and management school. Where I studied "urban economy". I have worked one year with Epamarne, working on the public planning of the new town of Marne-la-Vallee. I hope next year to undertake a Masters in Urban and Regional Planning to complete my training. I have already participated in Les Ateliers' Cergy workshop last year.</p>
(ESSEC)	
France	
Age - 24	


	<p><b>LONGHURST Rowan - Landscape Architect</b></p> <p>I recently graduated from Sheffield University, UK after 5 years of studying. I currently live and work in London, having returned to a Landscape Architecture and Environmental Planning consultancy, who I have worked with on and off for several years. Outside of work I take every opportunity to get outside, play sport, eat, party and explore as much as possible. The opportunity to participate in this project finally gives me the chance to practice my skills as a Landscape Architect in an African setting, something I have been working towards for several years.</p>
(Sheffield)	
United Kingdom	
Age - 25	



## THE PARTICIPANTS \_ TEAM D :

	<b>ADJATI Elie</b> - Architect/Engineer
(ESIAU)/ (Benin)	
Benin	
Age - 36	

	<b>ANDRE Amélie</b> - Architect
(ENSA Nantes)	My name is Amélie ANDRE, I am a graduated Architect of ENSA Nantes since February 2008. Since, I have worked for two years at Xavier Fouquet, architect to DPLG, agency F.au unborn where my work oriented itself on the shutter urbanism of the agency. I was refer urbanism of a study prospecting for longlasting intermediate cities in Haute-Vienne (order of the DREAL - Limousin) . I lived in Hamburg for an academic year in 2006/2007 at HFBK. This immersion allowed me to speak fluent German.
France	
Age - 26	

	<b>BOGNON Sabine</b> - Doctorat urbanisme/Urbanist
(IFU)	
France	
Age - 24	

	<b>MOCHIZUKI Mai</b> - Architect
(University of the Arts)	Hello, my name is Mai, I'm a architectural master student. my main topic in my studio is to think about relation of cloth and architecture. I'm live in east downtown of Tokyo. it's really noisy and small town, but I love my town. My hobby is travel and reserch around the world, especially old town, and vernacular one.
Japan	so, that's why I participate in this workshop.
Age - 28	

	<b>REDDISH Elspeth</b> - Landscape Architect
(Sheffield)	Hello. My name is Elspeth Reddish and I come from Bristol, South West England. I studied Landsdcape Architecture with Town Planning at the University of Sheffield for my Bachelors. I have just completed my Masters in Landscape Architecture, specialising in design and planning. I studied landscape with the aim of creating places that benefit the environment and people's wellbeing. I am very keen to utilise my skills in developing countries, and am grateful that Les Atelier's workshop has offered me this opportunity.
United Kingdom	
Age - 24	

## LES ATELIERS \_ ORGANIZING TEAM:

### Pilots



**BOURJAILLAT Vincent** - Urbanist



**RAIMBAULT Luc** - Engineer/Urbanist

### Assistant Pilots



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**PRINGLE Andrew** - Landscape Architect - United Kingdom

**Contact Details -**

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### Managing Team



**DETRIE Nicolas** - Director Les Ateliers



**PLANE Antoine** - Assistant Director Les Ateliers

### Representatives of the municipality



**NOUDAIKPON Gregoire** - Geographe, assistant a la Direction des Services Techniques, Mairie de Porto-Novo

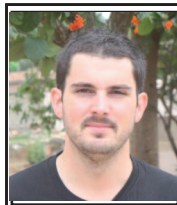
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98824131

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**HOUSSOU Romeo** - Chargé d'étude du projet de développement urbain



**VOLLET Antoine** - Chargé d'étude du projet de développement urbain



# THE JURY

## Co- PRESIDENCE



### Moukaram OCÉNI

MAYOR OF PORTO-NOVO  
maire@villedeportonovo.com \_ Bénin

Moukaram Océni is Graduated in Business Administration and Management, and he has been a promotor and director of the Société Saranabu from 1993 to 2000, then promotor and director of Liquick Distribution Sarl and International Multi Services Bénin. From 2007 to 2008, he has been Director of the Logistics and Transportation Department of the Saranabu Group. In 2008 he became a representative of the 4th district of the City of Porto Novo, before he was elected as a mayor of the city and president of the Municipal Council in June, 2008.



### Luc RAIMBAULT

SCIENTIFIC MANAGEMENT OF THE WORKSHOP  
luc.raimbault@cergyponoise.fr \_ France

He graduated as a general engineer, then specialized as a Civil Engineer and Construction Engineer. He has worked during 15 years for an important French company of Construction, before he started again studying urban planning and design, then working for local collectivities. He is now Deputy General Director of Cergy-Pontoise agglomeration, and has been part of Les ateliers since 2005, as a member of the Administration Board and a member of the Scientific Board.

## NATIONAL AND LOCAL ACTORS AND PARTNERS



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URBANIST PLANNER

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### Joseph ADANDE

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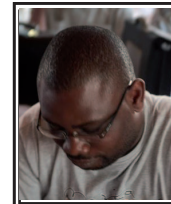
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### Noukpo AGOSSOU

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Geographe, spécialiste d'aménagement régional et développement, le Professeur Agossou q publie de nombreux ouvrages sur les tax-kanna, les zémidjans, les kpayo, les dynamiques frontalières, etc.



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**Pacal AKPLOGAN**

FISHPARTNER AND PASTOR, LOKPODJI



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**Collette HOUETO**

FIRST DEPUTY MAYOR OF PORTO NOVO



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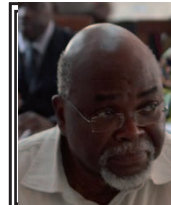
**K. SEVERIN NSIA**

DELEGATE FOR PLANNING OF THE TERRITORY



**Fatiou AKPLOGAN**

PAST MINISTER OF AGRICULTURE



**Prosper AHONLONSOU**

PRESIDENT OF THE ADMINISTRATION COUNCIL SERHAU-SA  
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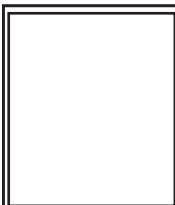


**Gaston BOKO**


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gbbko@yahoo.fr



## INTERNATIONAL ACTORS:




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**Ambroise ADJAMAGBO**  
ARCHITECT - URBAN PLANNER  
He is a teacher and researcher, as well as R&D Director at the EAUMAU (African School for Urban Planning and Architecture) in Lome, Togo. He took part in many different studies and projects, for example the urban project of the city of Lome.




**Sylvie BURGUIERE**  
ARCHITECT  
[sylvie.burguiere@cergyponoise.fr](mailto:sylvie.burguiere@cergyponoise.fr) France  
Deputy Director for the "Landscape and Space Organization" Department for Cergy Pontoise's agglomeration.




**Mahamoudou WADIDJE**  
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He is an elected representative of the District City Hall of Bamako, in charge of Environnement-Infrastructures-Sanitation and Great Works-Land Affairs-' questions.



**Bolanle WAHAB**  
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PUBLIC WORKS ENGINEER, SPECIALIZED IN ENVIRONNEMENT  
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He is director of the "territory" departement of Cergy-Pontoise agglomeration, in charge of the water adduction project in Dowa.



**M. Deyoko**  
DIRECTOR OF THE ESIAU, SUPERIOR SCHOOL OF ENGINEERING, ARCHITECTURE, AND URBAN PLANNING. BAMAKO, MALI  
[ecolebadialan1@yahoo.fr](mailto:ecolebadialan1@yahoo.fr) Mali  
Abdoulaye DEYOKO is currently founding director of the Superior School of Engineering, Architecture and Urban planning (ESIAU), which is a private school aimed at graduating executives in Public Works and Buildings. On the associative level, he was a member of the Association of Urban Planners of Mali and was Secretary in charge of training at the Order of Urban Planners of Mali. He had several offices in the Malian Administration, and has taught urban planning at the Panafrican Institute for Development in Ouagadougou, and urban design at the National School of Engineers (ENI). He monitored the team in charge of the planning the Great Ouaga.



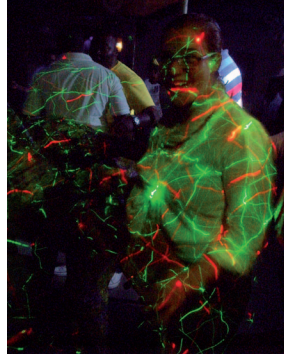
**Wahib KADIRI**  
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**Franck CHARLIN**  
URBANIST PLANNER  
[f.charlin@urbalyon.org](mailto:f.charlin@urbalyon.org) France  
He has been working for 11 years at Lyon's Urban Planning agency, as a territorial studies manager (cities and urban forms department and urban design and process department), and he is part of the international team working with Porto Novo (Bénin) in the frame of the Great Lyon decentralized cooperation;



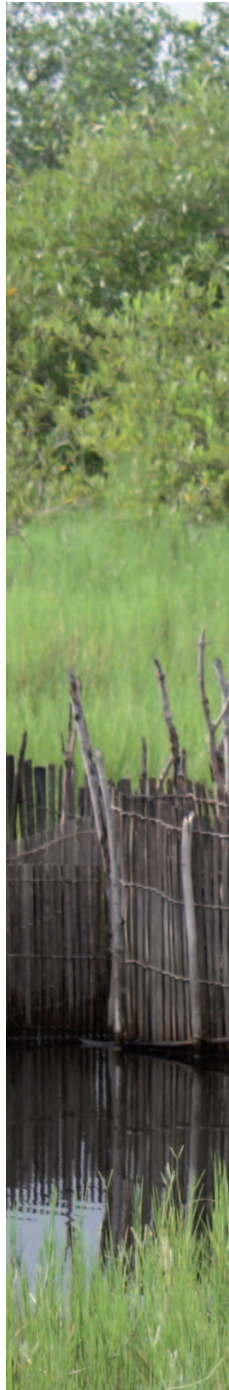
# IMAGES













# CELEBRATIONS OF INDEPENDENCE

Taking part in the festivities in the city celebrating the 50th year of independence of Benin.

## 1st of August Parade

As part of the celebrations of the independence of Benin a parade was put on by the city on the newly asphalted avenue specially laid for this event. The Les Ateliers team took prime position in the gallery to overview proceedings. The president started the procession with a short drive by to greet the waiting crowds. This was followed by a magnificent display of majorettes and many military outfits. Bands played throughout and were greeted by loud, enthusiastic cheers.



The occasion ran smoothly and we felt a real privilege to witness such an important event in this great nations history. The event drew to a close with a full military gun salute much to the delight of the crowd.



## Celebration dinner

During the fete, a celebration dinner was held in the grounds of the impressive newly built youth centre in the city. The event took place in a large marquee decorated lavishly in the town colours of blue and white. This was an evening of music, shows, speeches and food.



The main event of the night was the symbolic cutting of a specially made 50th anniversary cake by the mayor Mr. Moukaram Oceni.

## “ Uli Symbol: Day of Bliss in Lokpodji ”

*Uli symbole: jour de joie à Lokpodji*

Painting by Syl.Pâris.Kouton

*Speech of an artist (left untranslated):*

*« Je suis un passant sur ce chemin de lumière et de douceur (bande de couleur jaune et points bleu) et ce mur vert m'invite, ce paysage m'interpelle : et c'est Lokpodji. Ainsi, je suis allé derrière ce mur, derrière ce paysage par cette entrée métaphysique de pureté (couleur blanche de la toile).*

*Et je vois des gens, représentés ici par ce couple qui vit dans la grâce pure (symbolisée par l'arc en blanc), qui partagent dans la douceur de l'eau de cette lagune qui les berce, l'unique cola (représentée par un symbole en losange avec un point au centre). Ce partage de cola est signe d'amour, de soutien, de dialogue, de convivialité et d'harmonie (représenté par deux arcs entrelacés).*

*Et dans ce paysage de forêt (représenté par un arbre stylisé), le partage de l'unique cola est signe d'éternité, de continuité (représenté par le symbole en spirale) au sein de cette population de Lokpodji formée de riches, de moyens et de pauvres qui ont le même sang (représenté par le cercle rouge au centre) et trouvent leur équilibre dans ce milieu, ainsi que la paix.*

*Donc, en apportant des éléments de développement dans cet environnement, on doit leur laisser toujours leur joie de vivre, leur jour de joie (day of bliss). On ne doit donc pas les brusquer, les agresser ou leur faire violence. Ainsi ils vont s'adapter en harmonie et avec douceur à la nouvelle musique qui est le développement de leur univers, le développement de leur localité : Lokpodji. »*

*Syl. Pâris. Kouton August 2010*

