



FINAL REPORT



ATELIER



BANGKOK - RIVER CITY

WORKSHOP OF PLANNING AND URBAN DESIGN
From May 31st to June 13th 2008



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-Members of group	
-Presentation	
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This document aims at presenting the proposals of the 3 international teams that have worked 2 weeks at the Faculty of Architecture, University of Chulalongkorn, on the topic of Bangkok-River City. We are working on another document which will propose a synthesis of this collective work.

THE CHAO PHRAYA RETURN

Organizing the city around the river, dynamizing its water fronts, living our era's blue city are processes which have already changed the physiognomy, geography and customs of many cities in the world. Some of them like Paris, Budapest, Prague, Vienna, Lisbon... have achieved these objectives in earlier stages, others have more recently engaged in urban renewal. Other river-towns, London, Tokyo, New York, Buenos Aires, Montreal... can be mentioned.

In Bangkok, the former spatial and functional logic of waterways has been profoundly transformed. In a sense, through filling, mere supposition and oversight, it had given up a major part of its river existence. Today town councillors wish to develop the river by retying with Chao Phraya. Considering the scale of the aquatic territory which has nevertheless remained and the functions it can still fulfil on its course as on its banks and waterside districts, this second alliance will strongly contribute to the revival of the whole city.

Because time has passed, because certain realities have faded, because new ones have appeared, this second alliance cannot be considered as a (nostalgic) rehabilitation but must be appreciated as a mutation (not without memory of the past). It is necessary to elaborate from the existing city, a new "blue city". A first order construction site opens here, in the future of Bangkok, as in Rome, Canton, Shanghai, Seoul, Sville, Lyon... and it is to this task that the expert gathered by the Ateliers are asked to contribute by their diversified skills, their experience, their enthusiasm and their generosity.

"We sailed down the river with the wide, lazy and happy flow. Huts on piles nestled on the water's edge in the greenery of banks"* said Somerset Maugham. The river is always there, wide, idle and attractive. Upstream and downstream, houses on piles follow each other, one right next to the other, sometimes they are in ruin, sometimes bright and fresh, but always delicate, luxurious or modest. They testify to a past when living there, in this delta plain subjected to the will of the waters, above all meant composing with the river. The asset which Chao Phraya represents can find in these settlements, minor but long-lived, the origin from which would stem the new "Bangkok, river city".

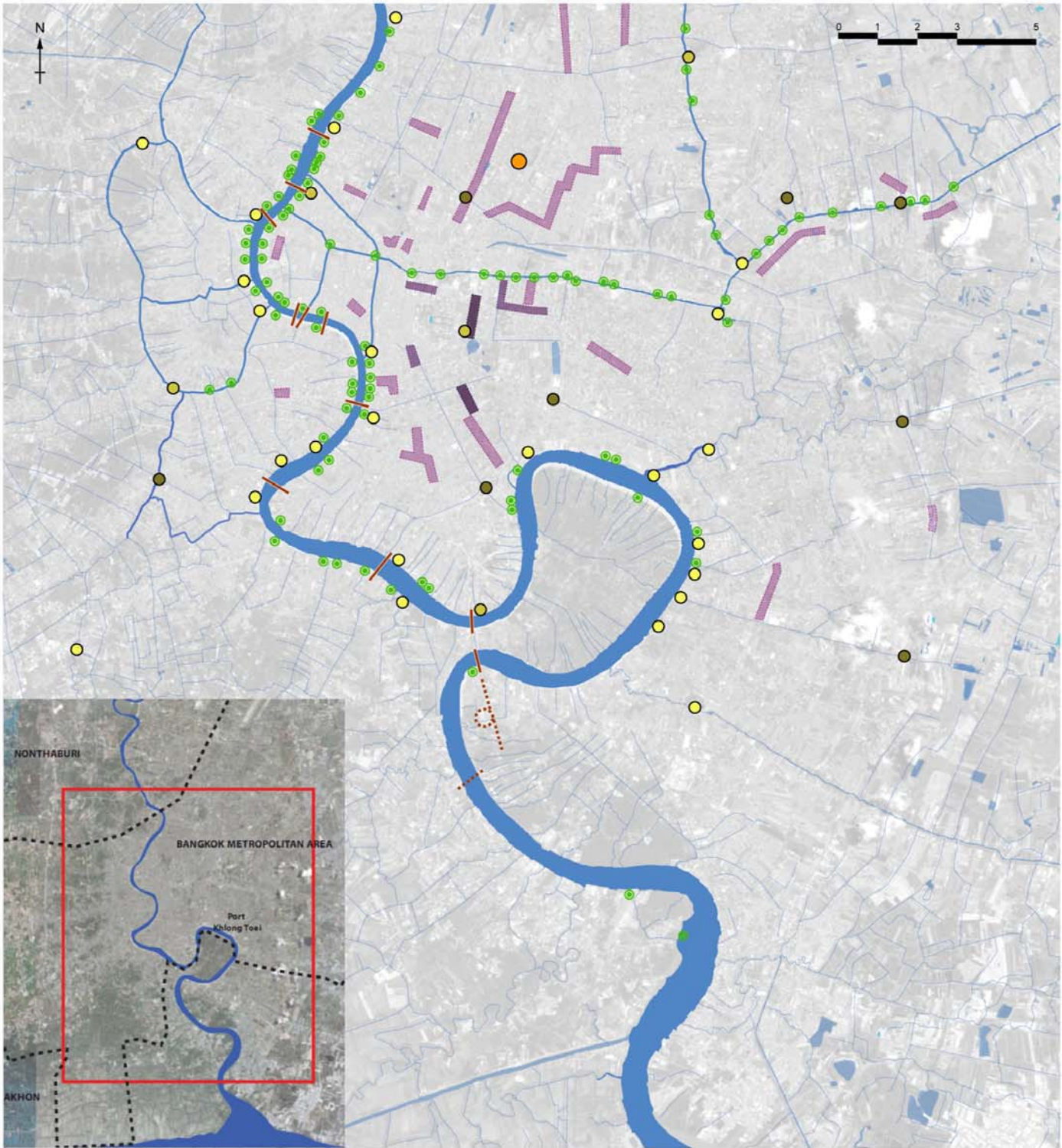
The ecological context has been globally, profoundly and dramatically transformed. Dyking, fillings of canals, the excessive discharge have transformed the relationship with the river to a relation of friendship and respect between the city and the river succeeded a devastating war which can be lethal, especially since Bangkok has to face to floods which ruin public and private investments, which maintain the most powerless populations in states of precariousness and ill-being, as well as the risk of its ground sinking. The alarm has been given, but we have entered the state of urgency.

But the river and some canals are still alive, as shown the intense traffic of cargo boats, ferries, "long tails", sampans and diverse barges or the kids who bath there (our friend Sumet tells us that they are "vaccinated" because they've swam there since their youngest age), or the thousands of city-dwellers who use it every day, or again the hotels which build their terraces on its edge. It is also alive ofr property developers who're dicovering the market value of the "view on the river" and try to get the best profit out of a land tax which becomes rarer everyday, by pilling up floors, higher and higher.

To offer Bangkok a calm and glorified relationship with its river, to serve the economic and social development of the city, to enjoy Chao Phraya as a wild, familiar and prolific nature... How to make these dreams real? Twenty one talents, twenty one skills, twenty one imaginations, twenty one experts will not be too many to take up this challenge.

Claude Prelorenzo

*William Somerset Maugham, Un gentleman en Asie, Editions du Rocher, 2000 (original publishing, The Gentleman in the Parlour, 1930).



The river Chao Phraya goes through the metropolis of Bangkok on about twenty kilometres before throwing itself into the Gulf of Thailand, splitting the city in two. Both banks of the river present different urban characteristics:

- the right bank (which corresponds to the former province of Thonburi before the creation of the BMA) hasn't been urbanized a lot but is the object of important stakes of extension today.
- the left bank (Phra Nakhon) where we find the historical centre, the big office and housing buildings, shopping centres and the main transport networks.

About ten bridges permit to cross the river. The most recent one, which steps over the buckle of the riversouth of the city, inaugurated in 2006, is the biggest double cable-stayed bridge of the world. The river still constitutes an important barrier to the continuity of urban traffic. The connection between both banks is also insured by "long tails" boats and some parts by river lines.

The city is crossed by a network of canals (Khlongs) built from the XVIth century to facilitate the transport of goods and to develop irrigated agriculture. Formerly main infra-urban communications, the majority of khlongs are now covered to the benefit of land ways and urbanization. Today, there are few remaining navigable canals and many of them serve as the recuperation network of waste waters.

The level of the city being at less than meters above the sea level, the river often floods the banks due to monsoon storms and high tides (September). Since the 1995 floods, the authorities have elaborated a prevention plan which rests mainly on the control centres of water regime and watergates.





	Parcs Parks
	Palais Palaces
	Equipements Equipments
	Temples Temples / Wat
	Zones d'activités Activity zones
	Espaces verts Green areas
	Embarcadères Piers
	Monuments Monuments
	Lignes de BTS Sky train Skytrain lines
	Lignes de MRT Métro Subway lines
	Voies ferrées Railways



**Friday 30th and Saturday 31st**

Arrival of international participants.
Check-in at Asia Hotel.
19:00 Welcome dinner.

Sunday 1st - Visit

8:00 Departure from Asia Hotel
Visit of the city by bus and by boat
Dr Siriwan and Jittisak from Chulalongkorn University and Mr Sompong, from BMA
20:00 Presentation of the workshop *by the managing team of Les Ateliers*

Monday 2nd – Opening and lectures**Chulalongkorn University, Sasa Patasala**

9:30 Official Opening and speeches
Welcome address by *Governor of Bangkok Mr. Apirak Kosayothin*
Keynote Speech "Bangkok in 2023"
10:30 Coffee Break
10:45 Official speech
Philippe Liège, French Embassy
Dr. Bundit Chulasai, Dean Faculty of Architecture of Chulalongkorn
Bertrand Warnier, Vice-Chairman Les Ateliers, Head of Scientific Committee
Nigel J. Cornick, CEO of Raimon Land
12:00 Lunch
13:30 Story of Bangkok "River City" *by Dr Sumet Jumsai*
14:30 The Moving city (Transport) *by Dr Sompong Paksarsawan, AMP Consultants Ltd.*
15:30 Hydrology of the metropolitan area *by Christian Piel*
16:30 Strategy of private property investors, *by Hans Brouwer, Raimon Land*
19:00 Welcome Dinner host by Raimon Land at the River Promenade

Tuesday, June 3rd - Lectures**Faculty of Architecture, Kasetsart University**

10:00 Master Plan and river projects, *by Dr Banasopit Mekvichai, BMA's Deputy Governor*
12:00 Lunch
14:00 Green River / Environmental impacts *by Dr. Eggarin Anukulyudhathon Dean of Faculty of Architecture, Kasetsart.*
15:00 Living in the city (Housing, sociology...), *by Dr Yongtanit Pimonsatean, Thammasart University*
16:00 River front cities panorama, *by Pr Claude Prelorenzo*

Wednesday, June 4th - Chulalongkorn

Definition of the 3 teams
Installation in the studio - Workshop

Thursday June 5th - Workshop**Friday June 6th - Workshop****Saturday June 7th - Workshop**

20:00 Party dinner, (organized by *Les Ateliers*)

Sunday June 8th - Break

Break

Monday June 9th - Workshop

Exchange Forum

Tuesday June 10th - Workshop**Wednesday June 11th - Workshop**

Arrival of Foreign Jury Members

Thursday June 12th

Rehearsal of oral presentations
Deadline for presentations
(jury members : Visit and conference)

Friday June 13th - Jury

08:30 Welcoming – Presentation Jury Members
09:00 Presentation of the topic of the work
09:30 Presentations by the three teams
12:30 Lunch
14:00 Collective debate
16:00 Deliberative Assembly
19:00 Jury deliberation – Final ceremony

Saturday June 14th

Check out of Asia Hotel





HONNENS Stephan



ZEEUW, de Thijs



SOULATGES Marie



KLAICHOM Sasithorn



PESSOT Fabien



JUMRUSJARONGPOL Amnart



DILET Marc

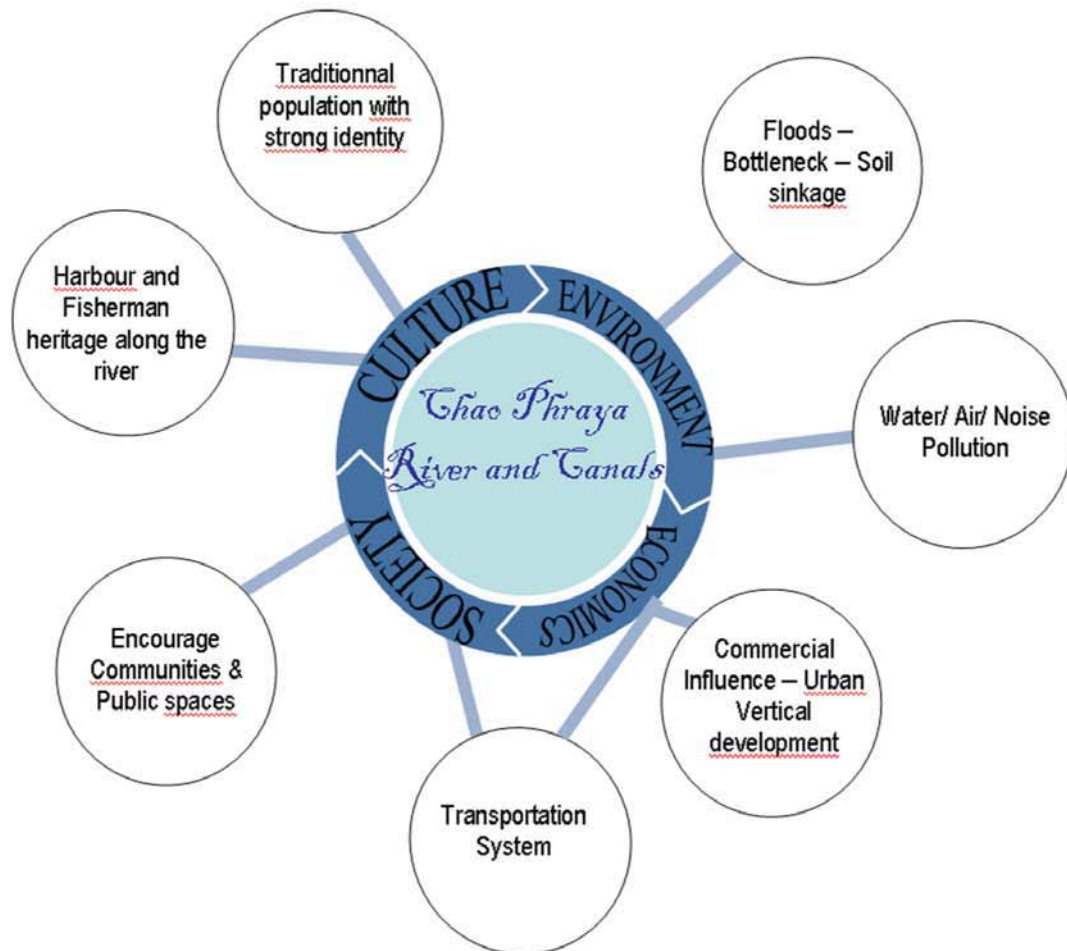
ARCHIPUNCTURE



CURRENT CONDITIONS



Main objective: Improve life quality in Bangkok



Culture

- Harbour heritage, the Chinese settlers on the land
- strong heritage and identity

Environment:

- Floods/ Ecosystem
- Pollution

Economics:

- Vertical development
- Tourism
- Transport

Society

- Transport
- Communities and very local initiatives to take care of canal and redevelop useful architecture and more livable landscapes

Archipuncture

INTRODUCTION

Health is condition of balance of yin and yang within the body.

Acupuncture regulates the flow of vital energy and blood.

"no pain, no blockage"; no blockage, it is a very pragmatical approach, by observing and questioning the patient, in order to make a diagnosis according to the tradition which he utilizes.

Freely inspired by a Chinese therapeutical method, we decided to practice "urban archipuncture".

For example, to fight against headaches, a western approach is to take aspirin pills that dilate vessels.

Our project focuses on a more eastern approach which consists in stimulating the sensitive points that are located roughly in the center of the webs. This functional rather than structural approach to developed "urban archipunctural" concept using the acupuncture "spirit", selecting hot points in Bangkok to relax flows.

Let the vital energy of Bangkok city flow and relax tension points with green and naturally shady open spaces

From pragmatical diagnosis to functional therapy :

Complementary "herbal medicine" with the green and sustainable approach.

We chose a sensitive approach to Bangkok planning, to relax the flows and make everything smoother and more relevant. "Urban archipuncture" is all about punching the proper project to the right place. Choose specific pain to relieve the pain and therapeutic purposes.



DIAGNOSIS

We used as well this approach for the diagnosis:

Inspection – face analysis, we had a tourist and Chao Phraya view of the river, and some interesting exchanges with locals has well.

Auscultation – Olfaction: sounds and odor, and here, with the hot and humid climate, you have to take care and how air is naturally refreshing the space, limit air-conditioned, -

Inquiring – general widespread diseases (global warming and its best practices...)

Palpation – go on field feel the atmosphere of the city, more relevant visits down to the city. We went down the river and canals, to feel the atmosphere

ANALYSIS - We analyzed then that Bangkok experienced a "free" development among several attraction points and not a rampant major city center; which justify our approach so as to be quickly efficient and respect the community entrepreneurship regarding development of local areas.

We want to respect as well the "living and burning" aspect of Bangkok, where everything is possible.

Focus on potentials instead of renovation at the moment to slow down wild development and drive it instead of controlling it.

Example:

Disease= Pollution

One has to develop new hot spots where to split car traffic, and so on...

THE NEEDLE MAP

What we call "Needles", are just local tools or projects to be applied on proper "nerves hubs"

But some kind of public enhancement policies might as well help to punch those needles more efficiently:

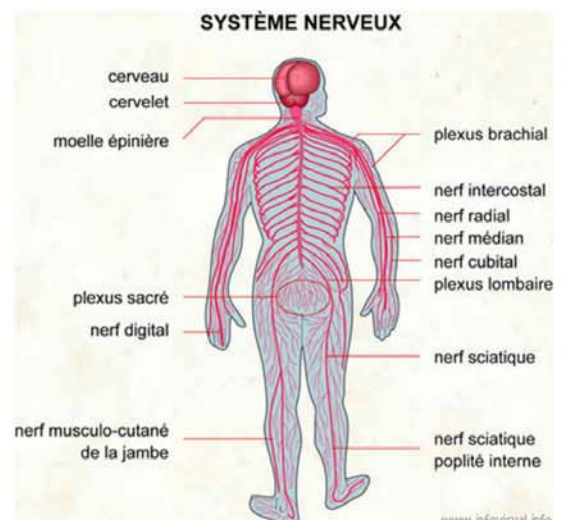
- Partnerships between Public and Private Companies, on one hand, Private companies raise debt more easily as the government is a good caution for borrowing, so it is possible to deal with bigger projects, on the other hand, the government gets flexible and relevant help to follow big projects.

- Transport system, vehicles have to be compliant as well with the environment and so on

- Preemption rights from governments might help to consolidate river sides, are parcels among the Choa Prahya are sold till the water, and no public space has been saved (even for safety reasons and accessibility to firemen for example)

- Social housing ratios for new construction can be imposed to make sure no exclusive ghetto is built in the city, and that the multicultural and social enhancement is kept so as to live altogether within the same area. But already a lot of government buildings are built along (military casern...)

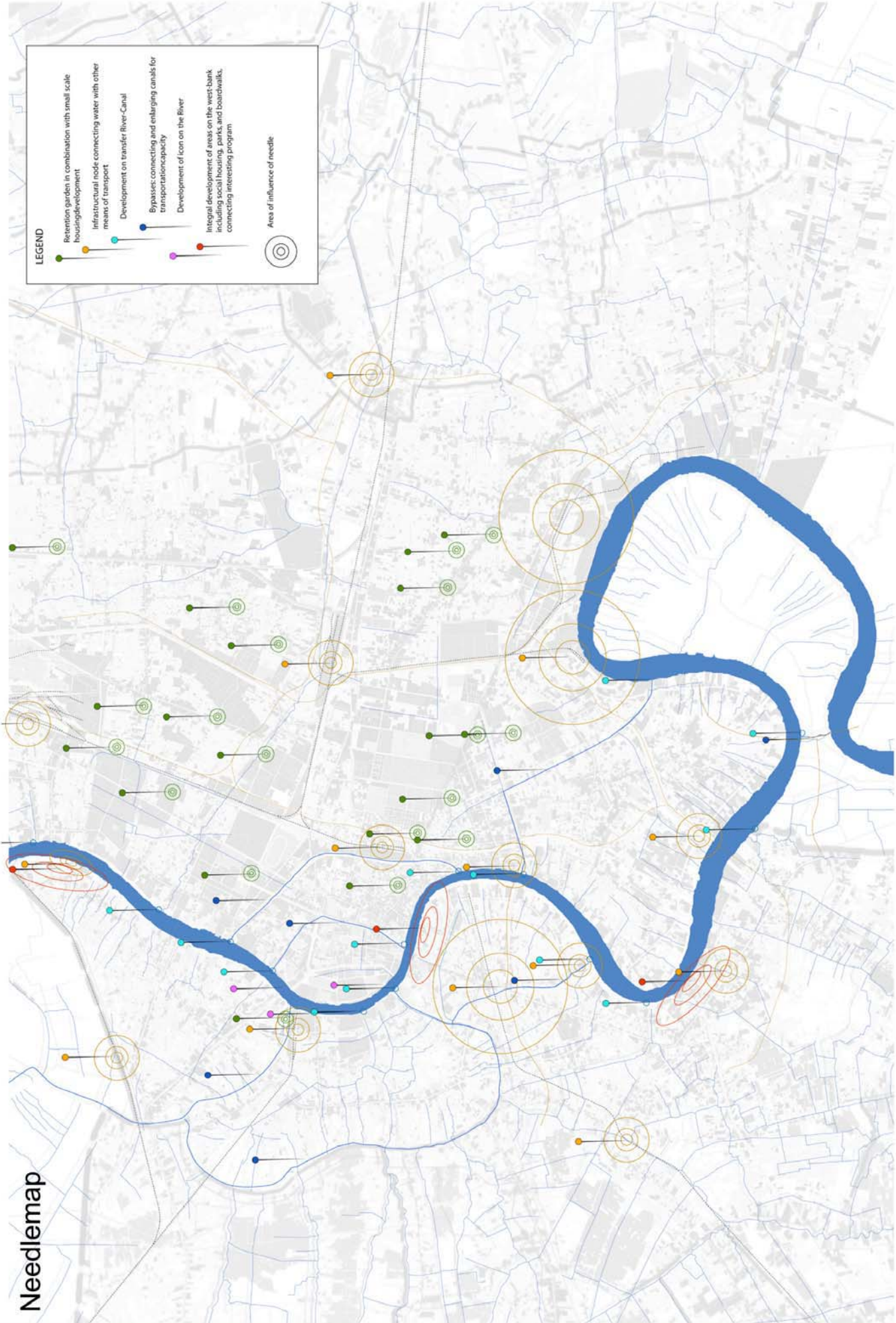
Some warehouse might be rearranged as well in case of moving because of higher rental fee.



Needlemap

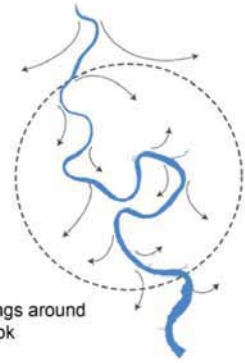
LEGEND

- Retention garden in combination with small scale housingdevelopment
- Infrastructural node connecting water with other means of transport
- Development on transfer river-Canal
- Bypass: connecting and enlarging canals for transportationcapacity
- Development of icon on the River
- Integral development of areas on the west-bank including social housing, parks, and boardwalks, connecting interesting program
- Area of influence of needle

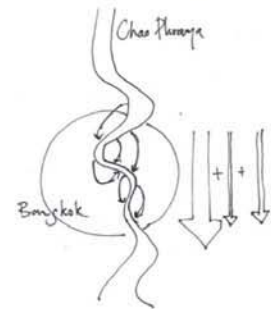
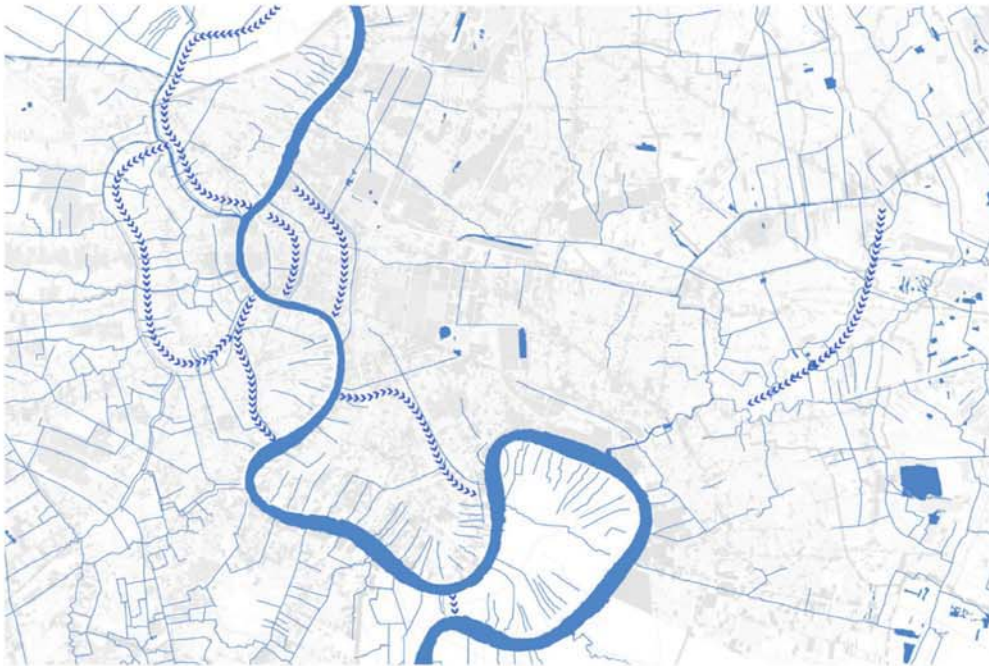


bypasses

Today Bangkok functions as a bottleneck to Chao Phraya river. During monsoon time the flow capacity of Chao Phraya river is not sufficient to transport through the city to the sea. With the result of floodings in and north from Bangkok.
Creating more space in the existing canals and use them as bypasses, can help reduce this problem.



Floodings around Bangkok

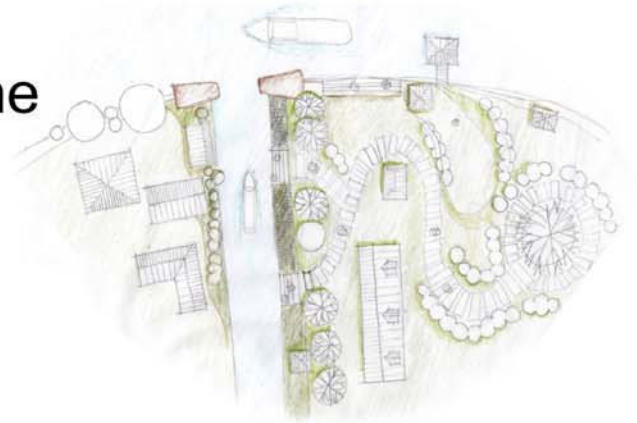


Enlarging transportation capacity



connecting the river and the canals

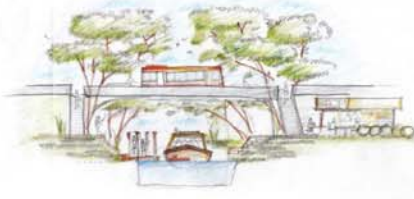
Create more transport on existing canals, and develop transfernodes.
 Remove obstacles and adjust bridges.
 Create accessibility along the canals and clean runoffwater before it reaches the canals by soil passage.
 Reduce traffic jams on bridges by connecting the two halves of Bangkok by water.



smallscale transferpoints as a catalyst for local development of economy and spatial quality



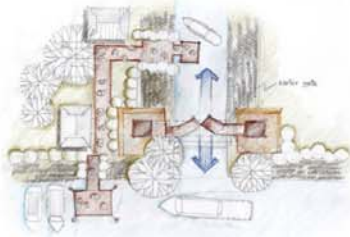
New walkway along the canals in combination with sandbody to clean the run-off water



combing different types of traffic with waterttraffic



creating boardwalks along canals in narrow areas



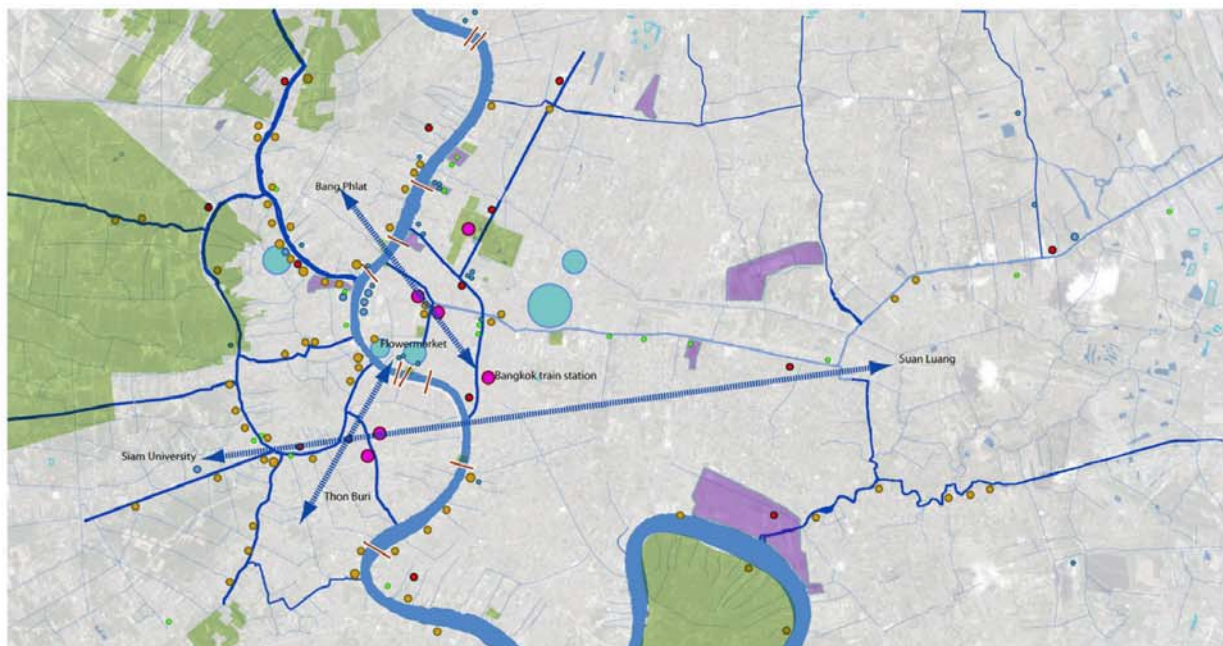
Transferpoint: people get out of the boat, buy a banana and continue on their canalboat



combing different types of traffic with waterttraffic



economic development at piers

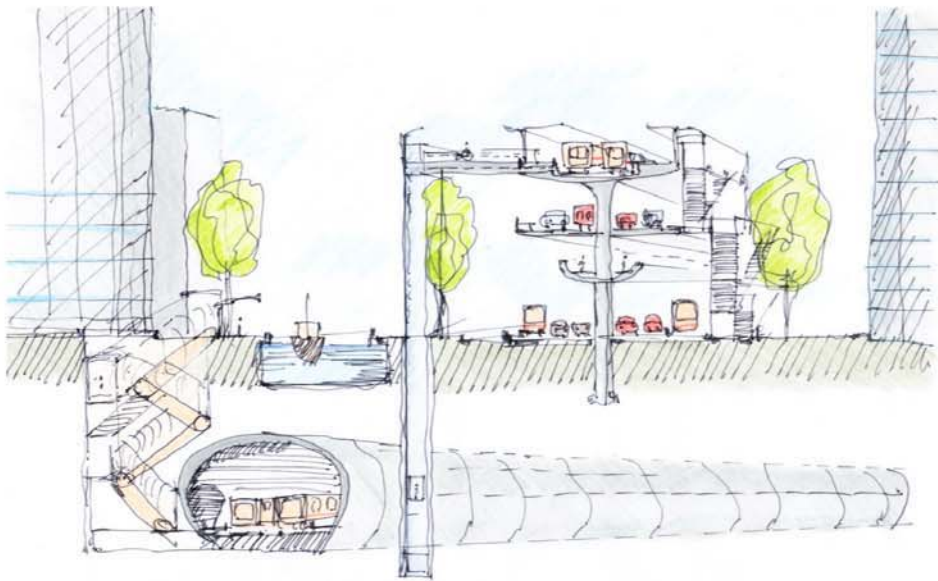


Connect east and west by new public watertransport

For instance:

- Bangkok train station ← → Bang Phlat residential area in the northwest
- Flowermarket ← → Thon Buri residential area
- Siam University ← → Suan Luang residential area

connect infrastructural nodes with water



Nanjing station, connecting rail and water

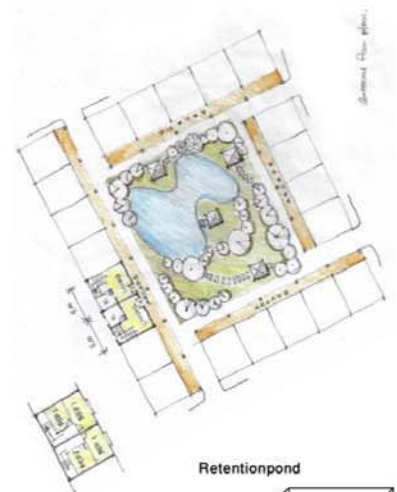
Connecting different types of transport:

- Car
- Train
- Subway
- Skytrain
- Boat
- Pedestrian

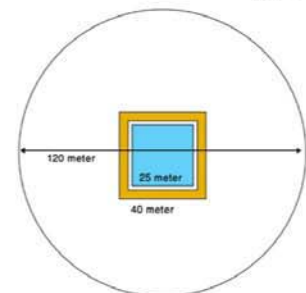
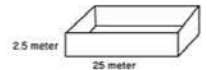
As an incentive for development in a larger area.

the retention garden

Small scale housing development around retention ponds in dense areas can take pressure of floodings after heavy rainfall. Two story building with 22 family-dwellings can store water for the area around



Retentionpond



300 days/year



60 days/year

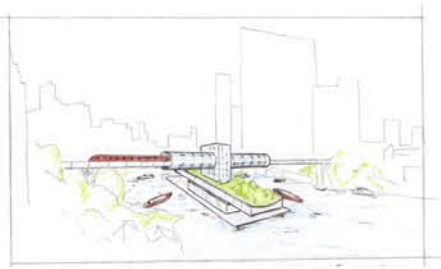
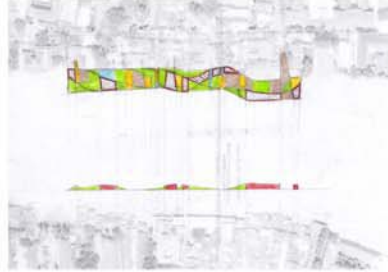


5 days/year



the river: icons

three icons on the river Chao Phraya river could be realised to reestablish the relationship with the water. One that focusses on water and transport, one on water and trade, and on water and ecology.



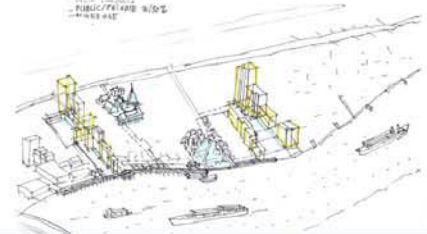
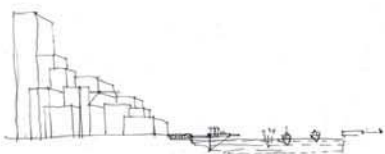
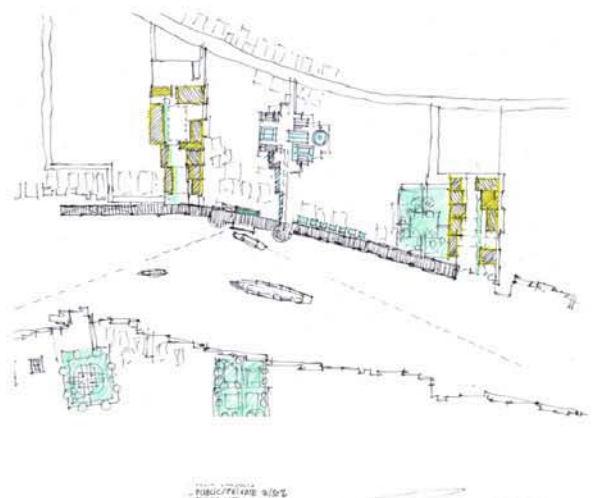
icon on traffic connecting different means of transport

icon on ecology creating contrast with the city

icon on trade, next to the flowermarket

the river: integral development of the westbank

Initiate local development on the westbank, and connect different program by boardwalks along the river.
 The projects connect new (social) housing projects with parks, temples and private gardens.
 Housing consists of 20% low-cost housing and 80 % private
 Boardwalks are like promenades, from 300 to 1000 meters long, and allow for boatstops.
 Other housing should happen behind the frontage.





SMOLARSKI Evelyne
France
Sociologist

PRUKSANUBAL Boonrawat
Thailand
Architect/ Urban Designer

ALESSANDRO TANI Ken
England
Architect/ Urban Designer
/Landscape Designer



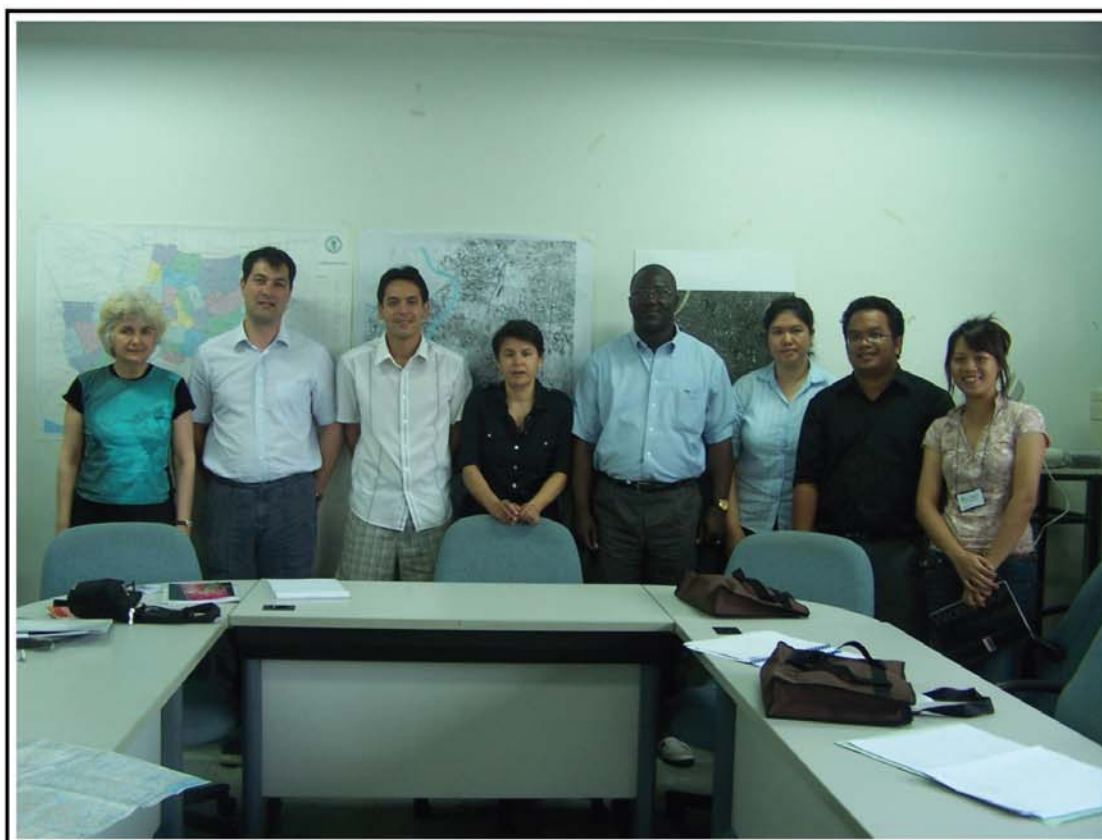
LAOKAEWNOO Treechart
Thailand
Architect/ Urban Designer

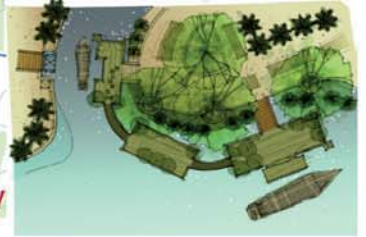
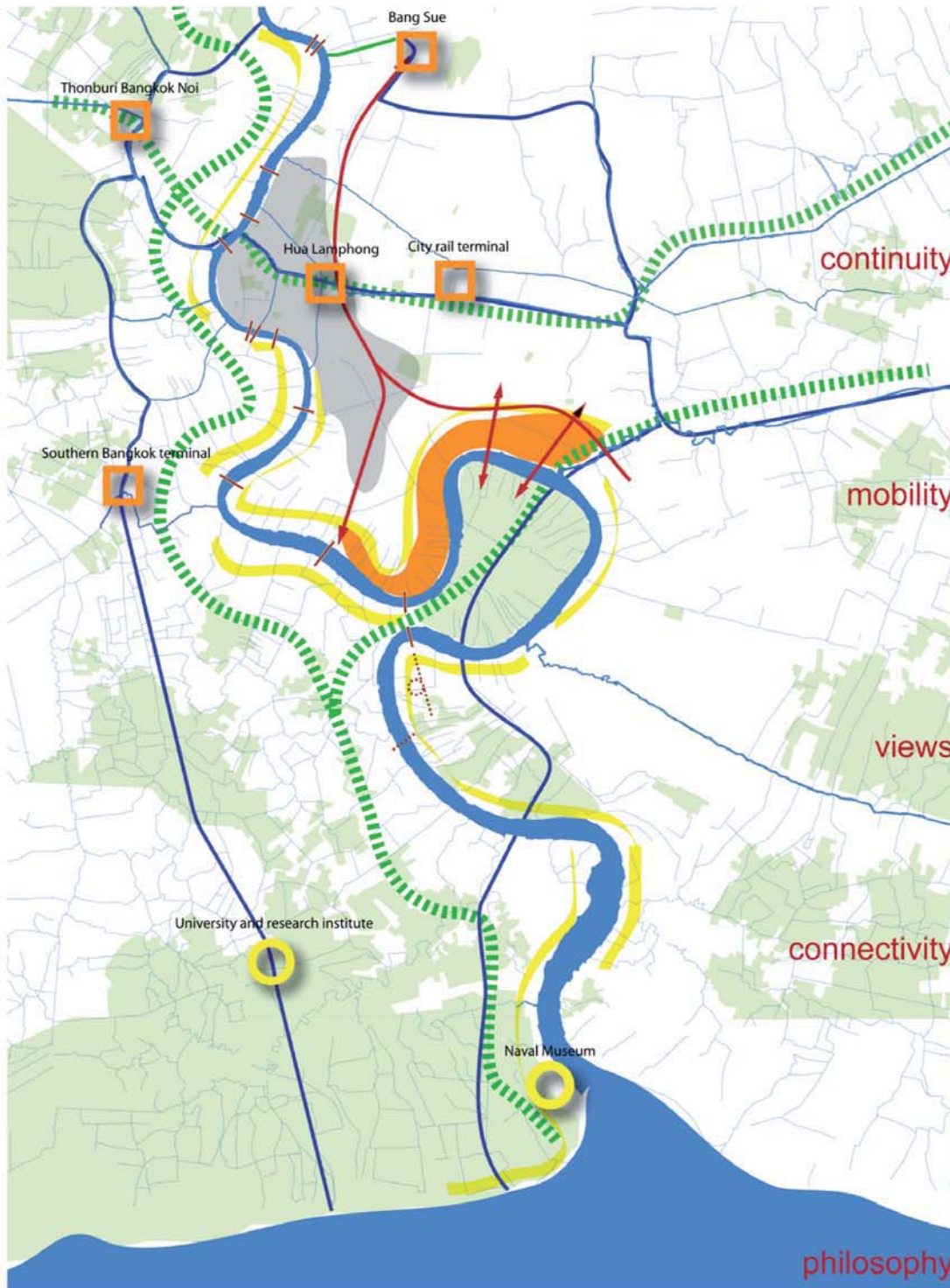
NIANG Demba
Senegal
Economist/
Urban Manager


DI FIORE Patrizia
Italy
Photographer/
Urban Designer

TIRAO Mano-Ura
Tahiti
Architect/ Urban Designer

2 FLOWING CITY





-  intermodal pole - urban development
-  cultural and research centre
-  green link
-  pedestrian and space continuity on the river
-  urban relation



Today Bangkok has a population of 8 millions inhabitants distributed on an area 1568 km². The old village which was born on the Chao Phraya river has disappeared since a long time.

If before the river was the main artery of the city for providing food, water supply, irrigation and transportation, today the roads guide the urban sprawl towards the hinterland.

The presence of the river is declined due to the fast development of the high-rise buildings and the huge infrastructure along the banks. Now the problematic is how to associate the image of Bangkok and its river and to improve the identity of the city as a flowing city.

Topics	Constraints	Potentials	Perspectives	Strategies
Geography Hydrology, Topography, Water Quality, Flooding	Swampy Areas 2m under Sea Level Sinking Land High Level Pollution / water quality Deficiencies in water Management Deforestation	Water as mean of transport, as amenity, to bring nature in the city, reconcile people and nature Large water network High biodiversity Morphology of land	Improve the connections between the river and its tributaries Improve water quality, Fight pollution Strengthen the image and identity of the river	Create a new sewage sustainable treatment facilities Encourage vegetation along the water to prevent rapid erosion Building control along the river Create a special organization to manage the water
Highways Transportation Mobility	Congestion / High number of cars Difficulty to cross the river / Difficult east-west connection Difficult to access to river edges Not enough inter-modality Lack of network of water transportation Width of streets No diversification of spaces for transport modes and types Slum extension along canal and river	Water as mean of transport Extend of canal network in the area of Greater BKK Possible cycling and pedestrian network Several unused pier along the river Settlements are placed next to the river	Extend and link water transportation network Create pedestrian network along the river Improve inter-modality Extend fast lane route in canal network Reduce car use by improving public transport, especially on rail (train, tram)	Create floating walkways and parks along the river Regulate transport access area restriction in the city Speed regulation Increase the numbers of piers along the river Create a special organization to manage the water transportation system in the 5 provinces (LKK, Samut prakan, Cha thong, Nakhon, and Nakhon Phanom Create a tramway towards the sea
Landscape Ecology	Not enough public green /public spaces Pollution No ecological corridors No visual perspectives towards the river Few promenade/beaches Lack of landmark pedestrian bridges Poor signage Lack of Thai landscape in the new part of the city	Rich biodiversity Good climate	Tropical landscape Create new green meeting spaces for the people Create new pedestrian bridges Change the overall image of the river	Create floating walkways and parks Create a special organization to manage the water way Recognize the ecological values of the river Recycle water for landscape irrigation



Economic activities New Places	Reversion of pollution farming / also culture interface urban fringe - agriculture	Link to the sea Connection to the rest of the country, north - south	Reconversion of fishing industries and agriculture Use modern water treatment techniques Organize urbanization, to preserve agricultural places	Separate the agricultural and fish farming Develop amenities Find places to promote ecotourism, protection, fishing and pleasure Preserve and Create new agriculture areas connecting with environmental lines
Housing	Slum extension along canal and river Lack of affordable housing for the poor	Variety of residential markets	Reduce use of water use in buildings Recycle Build with locally source materials	Create policies to promote sustainable buildings Create cycle parking
Historic Places	Large numbers of buildings in decline Conflict between old town and modern lifestyle Social value is changing rapidly	Strong spirit in the royalty The diversity of architectural styles in the old centre of BKK Conservative way of life in BKK Not Loop The old building are becoming more secure Walkway project will change the way of life and building orientation Increase of popularity of the floating market and tourism	Improving the life quality in the old city Promoting conservation concepts among local people Turning back to the water-based lifestyle	Improve and provide more pockets of parks in the old community Encourage the local to keep their old style houses Demonstration project on old building restoration Promoting water-based activity, floating market, fishing



The Expanding City



Bangkok from the water



1850



1900



1950



Today

City Centre



1850



1900



1950



Today

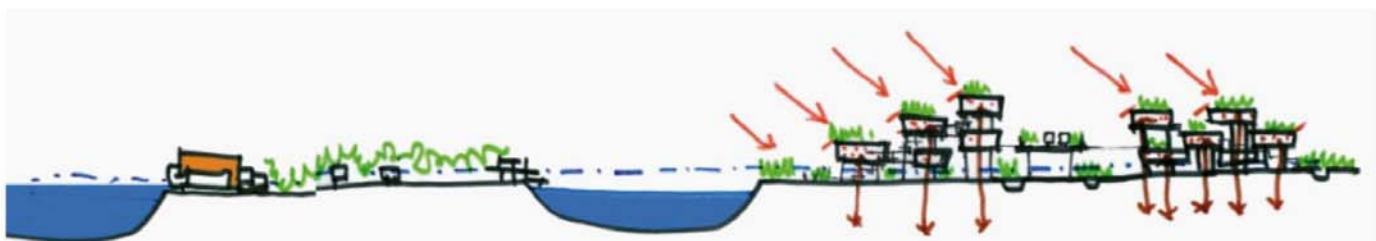
Bang Krajaao and the Double Bridge



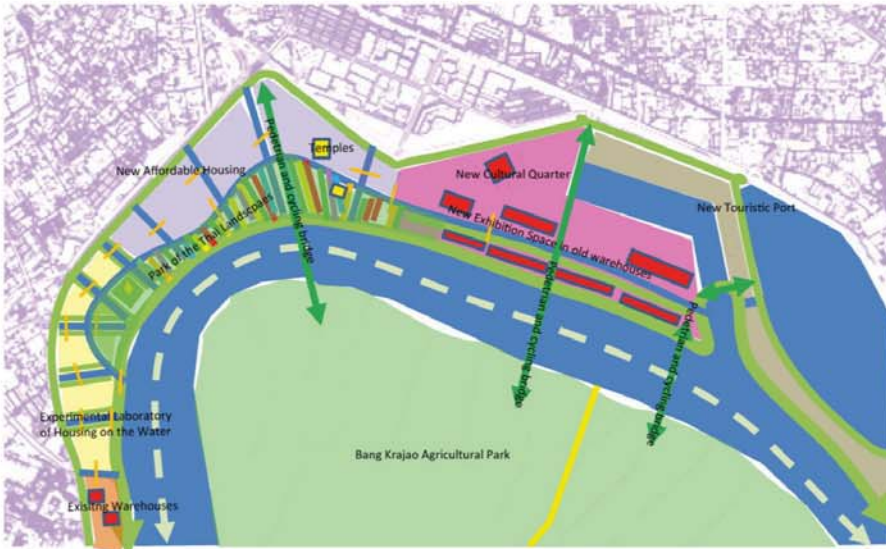
Today



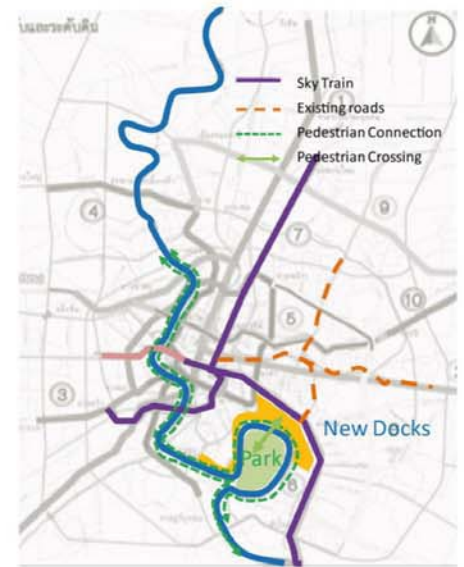
Tomorrow?



Adapting to the Water and the Environment



Masterplan of the New Docks



Access



Section



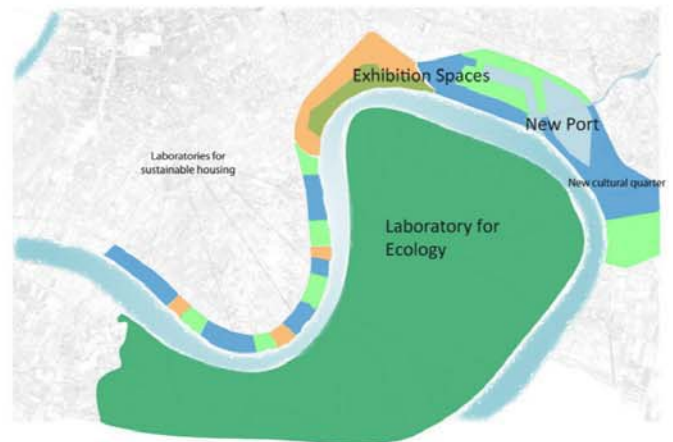
Today



Phase 1



Phase 2



Phase 3



Living With the Water



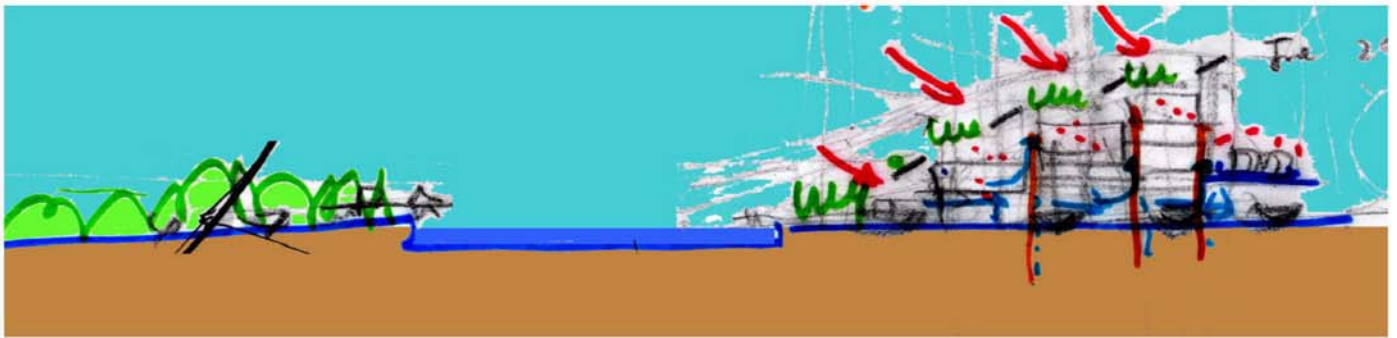
Floating Theater, Aldo Rossi



Performing Arts



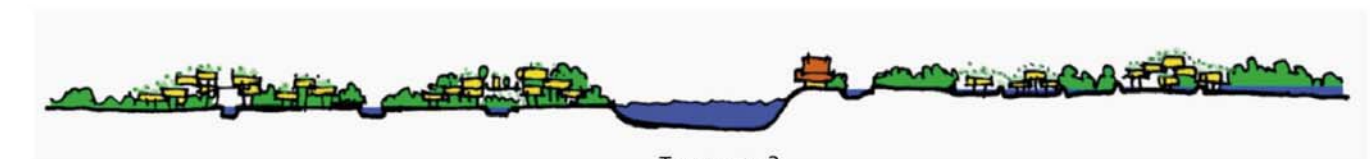
Existing Port Structures



Adapting to the Water and the Environment



Today



Tomorrow?



Experimenting New Ways of Living



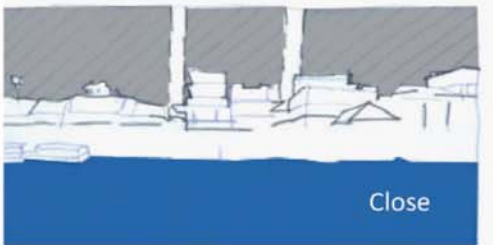
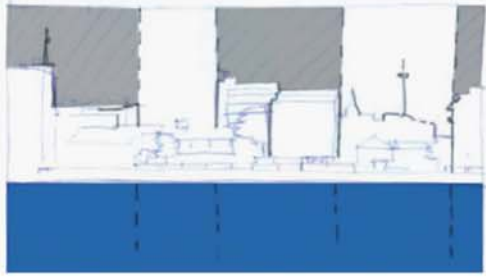
Traditional House on Stilts



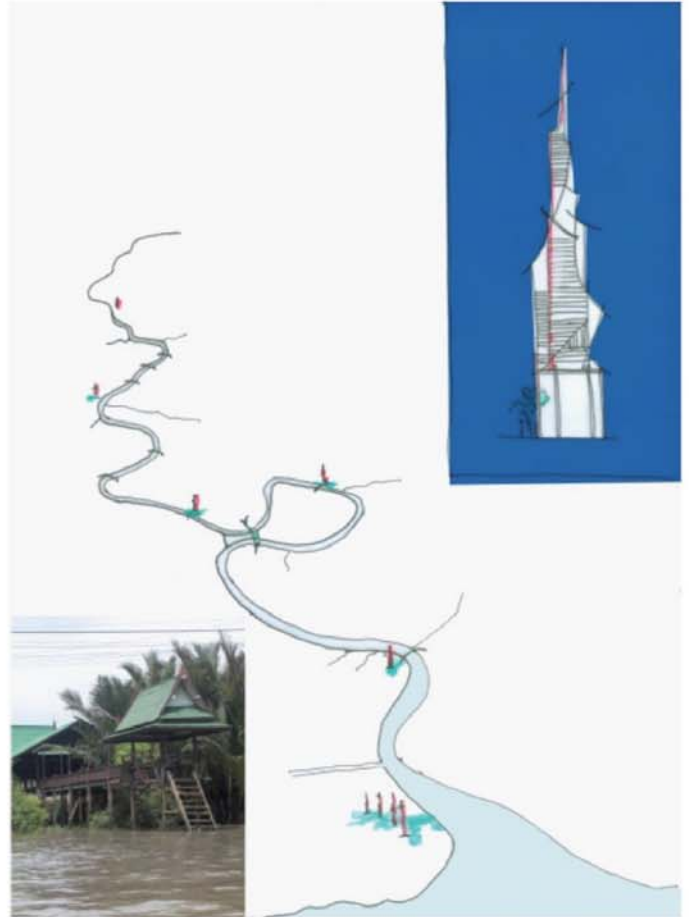
View South New Docks

Thai Landscapes





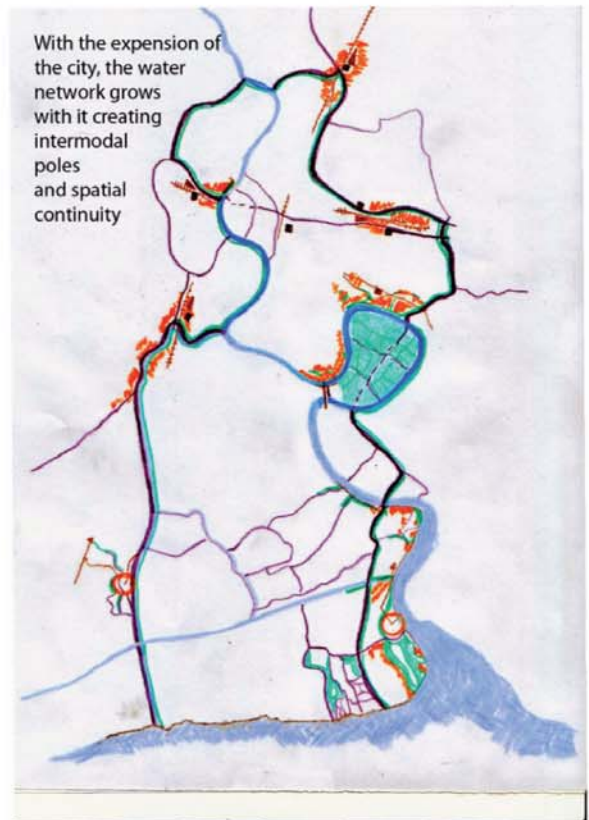
Opening-up views to the river and create perspectives from the city to the river



Create landmarks to improve the river's lisibility, remember the past uses of the Chao Phraya



Improve and develop intermodal poles



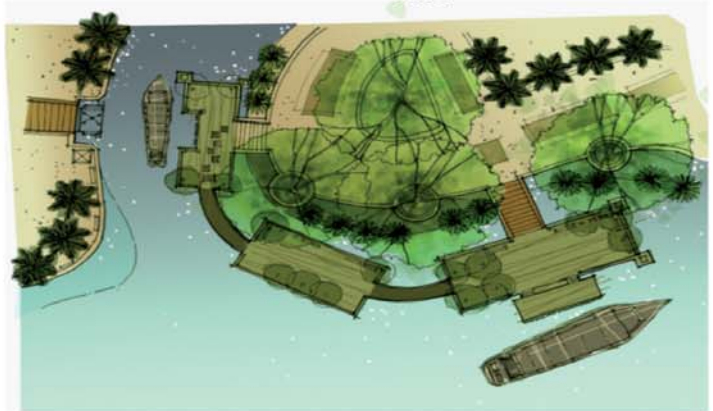
With the expansion of the city, the water network grows with it creating intermodal poles and spatial continuity



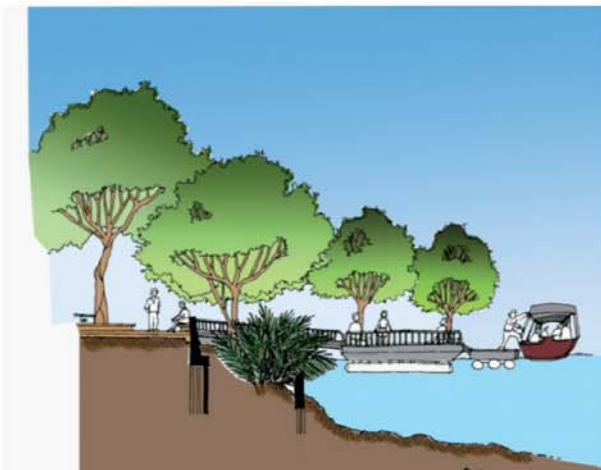
Before



After



Create access and continuity along the river's banks



Create access and continuity with pontoons



Create a new structure to improve the river's management



Present situation

Two structures work at different levels about managing the river in Bangkok :

National level : high port authority

Regional level : department of drainage and sewerage of water

The stakeholders:

- BMA
- Public sector (University, hospital, public administration with ministries)
- Private sector (manufacturing, services, informal sector)
- Development partners

Relations have to be developed by different stakeholders. Therefore, it's important to improve them in order to improve local participative democracy.

To achieve missions, some strategies have to be defined:

- Reconsider relations between BMA and the other levels of administrative structure in terms of consultation, social dialogue and monitoring about projects along the river
- Promote a better articulation between BMA and local communities directly concerned by the renovations to create Advisory councils in the districts in order to facilitate participation of players in the conception and spatial planning
- Promote Partnership Public Private (PPP) about commercial activities, cultural projects, transportation and urban housing renovation along the river, in a logic of sustainable local development
- Take account to the status of the private properties about the public and the private uses. In this perspective, local authorities will be the managers of all the process to develop the local economy.

About the institutional dimension of the structure

First, it's important to precise that the structure depends on BMA which delegate the responsibilities to a structure denominate "River Agency"

Secondly, we have almost as much juridical status which could be suitable for the structure inspired by regulations and legislative dispositions in force in Thailand. The essential is to find a juridical framework in accordance with the statute law and depending on the missions of the Agency which permit a normal performance, which ensure efficacy and efficiency.

1. What institutional device?

Some indications will be proposed:

- Apply the principle of subsidiary so that the level most apt to take care of the mission will be responsible : BMA's departments – Agency - districts
- Beg and receive the support of cooperation partners also the central government and the private sector
- Take account, above the true experiences, regulations and legislative dispositions with regard in managing rivers

So, the storyline we suggest could be declined like this :

- Building projects ensured by BMA ;
- Delegation of building projects by the River Agency

2. What missions?

- Create a structure in an "attractive" and adapted space in order to contribute as a site to welcome and to come along with commercial, cultural projects and urban renovation. These missions correspond to appraisal
- come along in upstream since the phase of elaboration of the projects and supply a support in the organizational, juridical and environmental fields
- Provide also some information as structure of territorial marketing about the possibilities offered by the river about commercial, cultural projects and urban housing

2.1. Missions with general character

- Interrelate the interventions between the different actors : State, BMA, Districts, partners, actors of civil society which get involve to the managing river
- Centralize all the questions relevant to the management of the river ;
- Centralize all the questions depend on the management of the river

2.2. Operational missions

- Inform, sensitize, and communicate around the strategies of evaluation of the river
- Realize urban and architectural studies for good management of heritage and spaces existents around the river on a border which be defined in agreement with the different authorities ;
- Support the investors and local communities to value their urban capital through subvention notably for populations who don't dispose of incomes
- Think and supply to carry out a river master plan of protection and of enhance its refer to sustainable development and protection of environment ;
- Ensure a mission about financial engineering and prospect finances



ROUY Céline Sarah
France
Architect/ Engineer



THANAGOES Ronarit
Thailand
Architect



GUTH Marie-Odile
France
Geographer/
Environmental Manager



BASILE Maria
Italy
Architect/ Urban Designer



LE XUAN Son
Vietnam
Architect/
Urban Planner



RIETVELD Franck
Holland
Landscape Designer



YIMPONG Sukonth
Thailand
Urban Planner

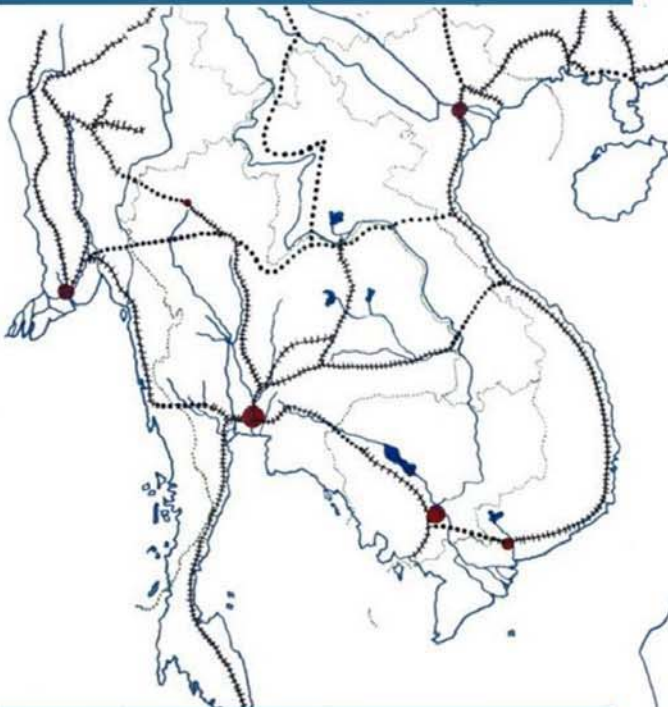
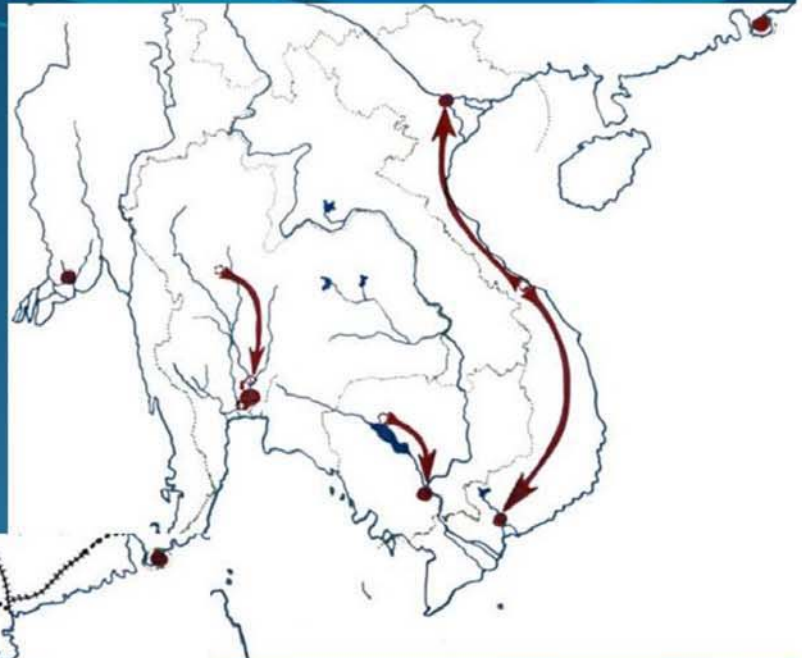
3 WATERCITY



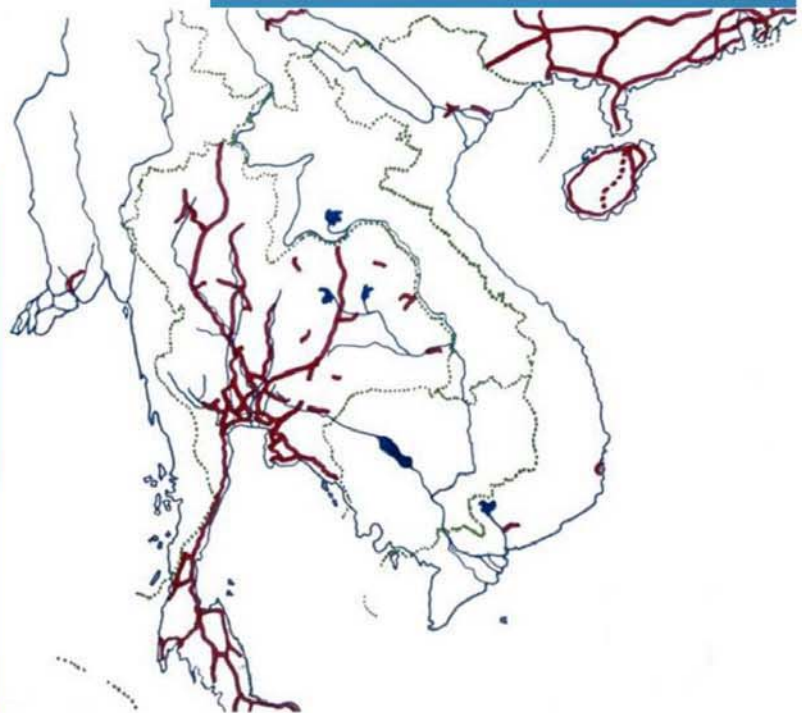
Bangkok water city : back to the future

SOUTH EAST ASIA, A WATER CIVILIZATION

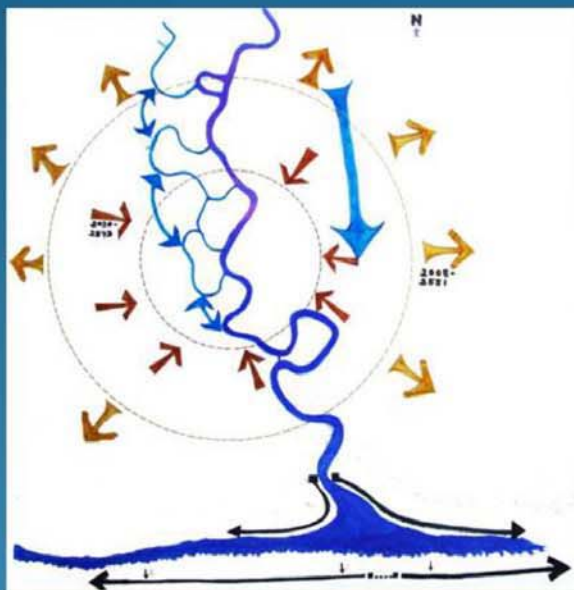
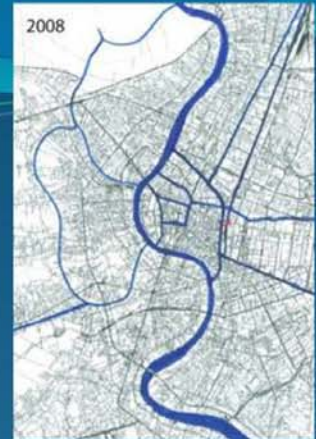
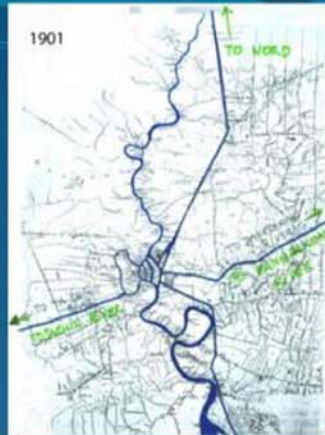
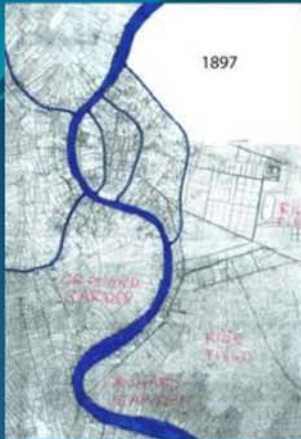
South East Asia is organized in big river basins : the Chao Praya and the Mekong, mainly. All the cities in this part of the world are localised near the water. Through centuries, the main capitals are going nearer to the sea : from Angkor to Phnom Penh, from Hue to Ho Chi Min, and of course from Ayuthaya to Bangkok. This movement downstream continues today with the choice of localization of the new airport : in the south, in a floods area. Whatever could be the floods problems and difficulties to urbanize these areas, these civilizations have chosen water, maybe because "water is life". These water basins are organizing space in a North-South direction, from the mountains to the sea, so different countries and capital are not connected with each others by train, but only by roads.



Bangkok has to find its own identity in the middle of all these Asiatic modern cities near the water, with which it is in competition to become the most modern city ever. We propose several aspects for the future identity of Bangkok, in link with what was and is its identity, to improve its identity as a water city;
its identity as a mixed city, mixed populations, mixed uses of land and mixed high of building, different from Asiatic towns for which high-rise buildings are the only image of modernity;
its identity as a node transport, in the middle of a network, making links between the North-South and the East-West organizations;
East-West railways connections between Thailand and neighbour countries (Cambodia, Vietnam, Myanmar, Laos);
East-West roads connections across the Chao Praya in the south of Bangkok.



GREATER BANGKOK, TO SOLVE THE WATER PROBLEMS



We recognize 3 problems : upstream, global warming and subsidence, monsoon.

To solve the problems of floods, we can't think only at the scale of Bangkok City : to fight against the floods at this scale, even with the very performing dikes and watergates system which is existing, is always moving the floods problem somewhere else. We propose then to make a big dam in the estuary of the Chao Praya, across the gulf, or a big dike along the coast, which could also protect the coast from the erosion (like in Nederland, Venice and Saint-Louis -Mississippi-).

At the scale of the greater Bangkok, the solution for the floods is to divide the water in as many ways as possible. We propose also to find back the old way of Chao Praya in the west side, by making big canals.

In fact, we are thinking that the suburbs of Bangkok are developing themselves very slowly and that the housing is not dense, it needs a lot of spaces. Even if the population of Bangkok is not going to grow as quickly as during the last years, we are thinking that the big centre of Bangkok can get denser, in order to avoid urbanizing a lot of lands in the suburbs. This increase of density have to be concentrated in the west of the Chao Praya and in the south of the city, in a game of mirrors with the existing old and modern centres.

PARIS



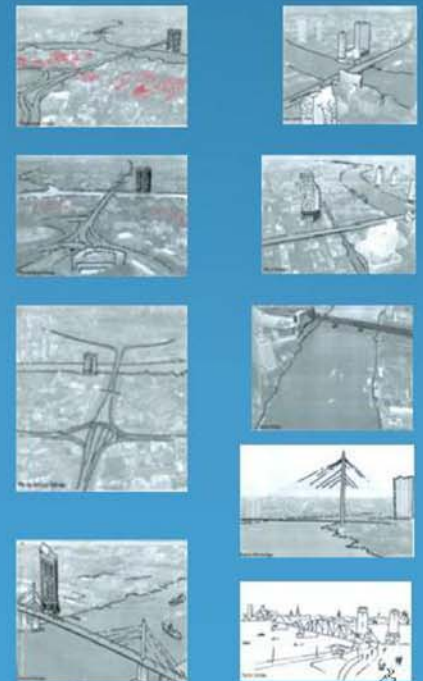
CHANGHAI



VENICE



BANGKOK





BANGKOK, A WATER CITY CONNECTED WITH THE LAND BASED ACTIVITIES
A water system for a water city and water people : re-creating a network of canals, of different sizes, by using the past canals which have disappeared and creating new canals, will permit to give to the city a modern identity in link with its past. People of Bangkok have in fact partly forgotten that they belong to a water civilization, and that this civilization is a modern way of living.

The water system should and will have several uses for the future city: transport, water management, leisure, urban redevelopment, greens, waste... No more important than the others to make an interesting city.

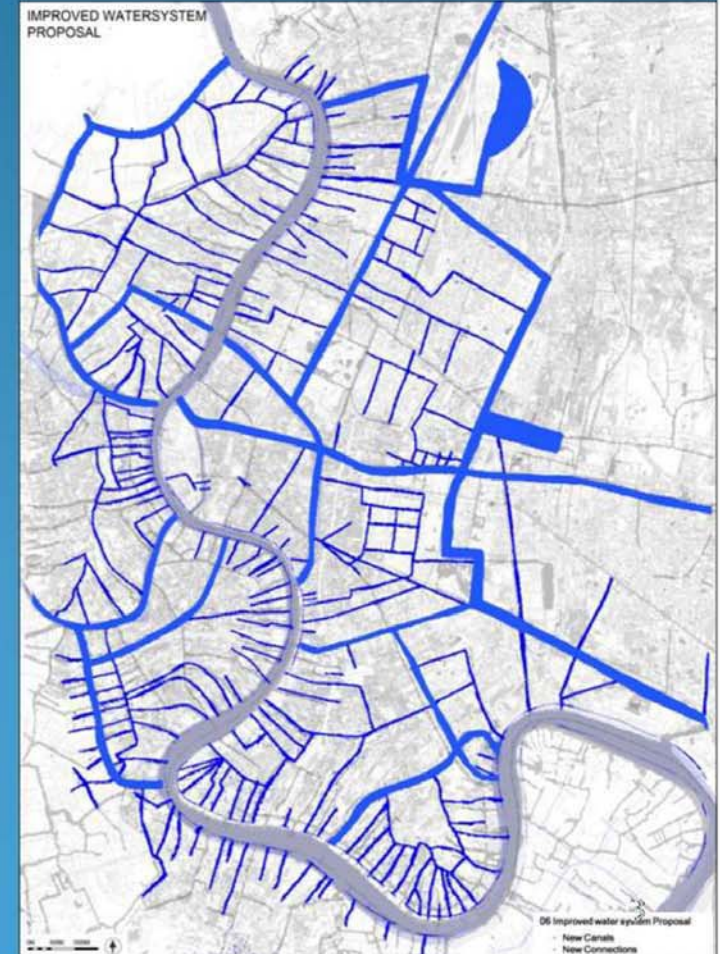
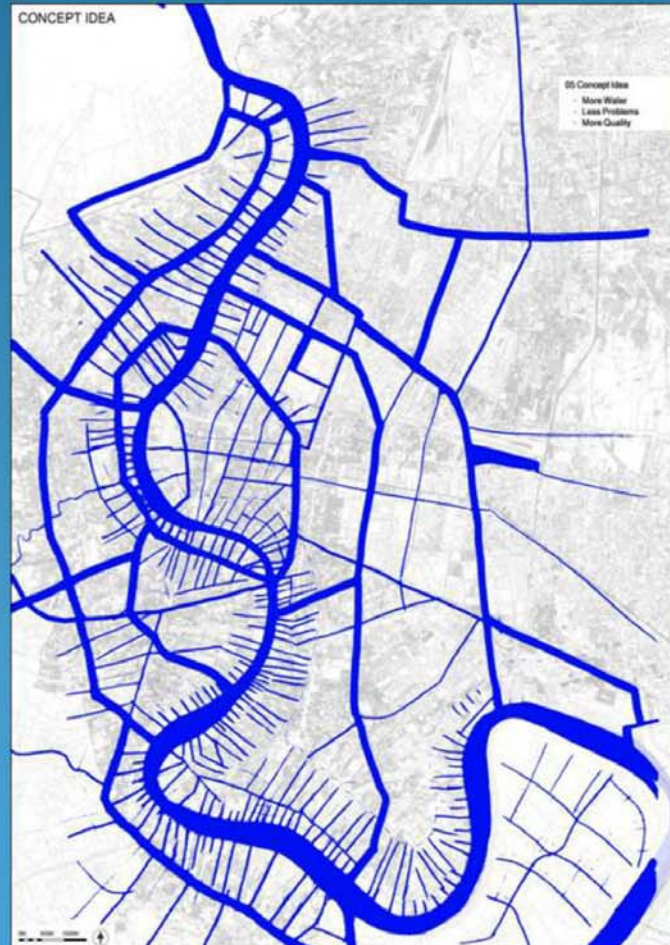
A system of a modern identity, based on the history

The water system will give a modern image of Bangkok to the world and to its inhabitants, but an image inspired from the history, the recollection and the ground identity of Thai. Inhabitants, tourist, foreigners, will be able to discover and live Bangkok from the water and to the water.

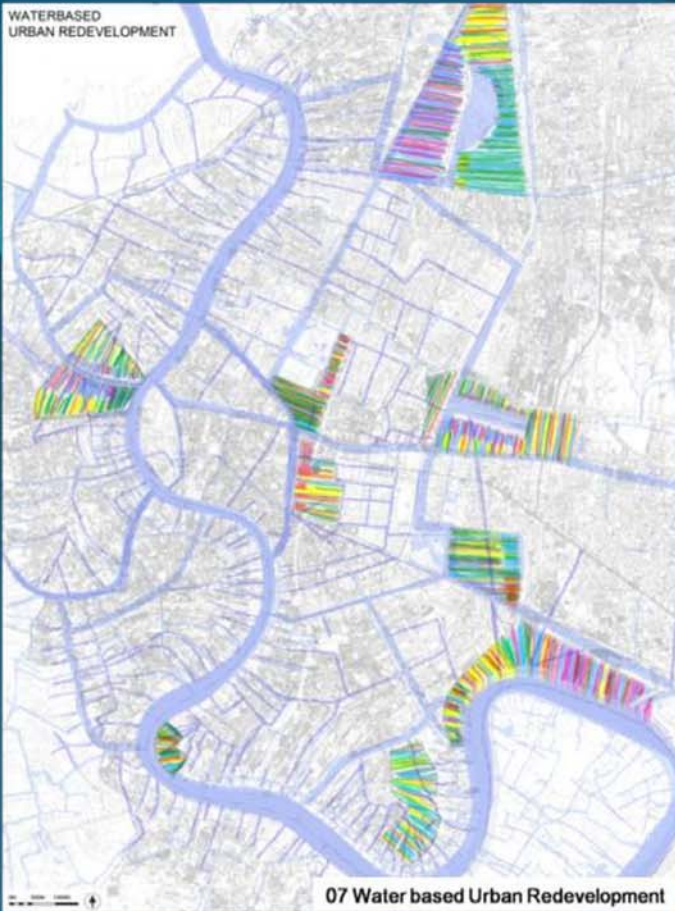
A system of shared green and blue spaces

There are not a lot of public green spaces in Bangkok, but Bangkok is in spite a green city, because of the presence of private green spaces everywhere. The future network of water will be in relation with this existing green network. We propose then to allow a private but shared access to the water and the green spaces, which is already the Bangkok way of operating.

Instead of a big public walk way along the river, for example, we propose perpendicular access to the water (river and canals), everywhere in the city.

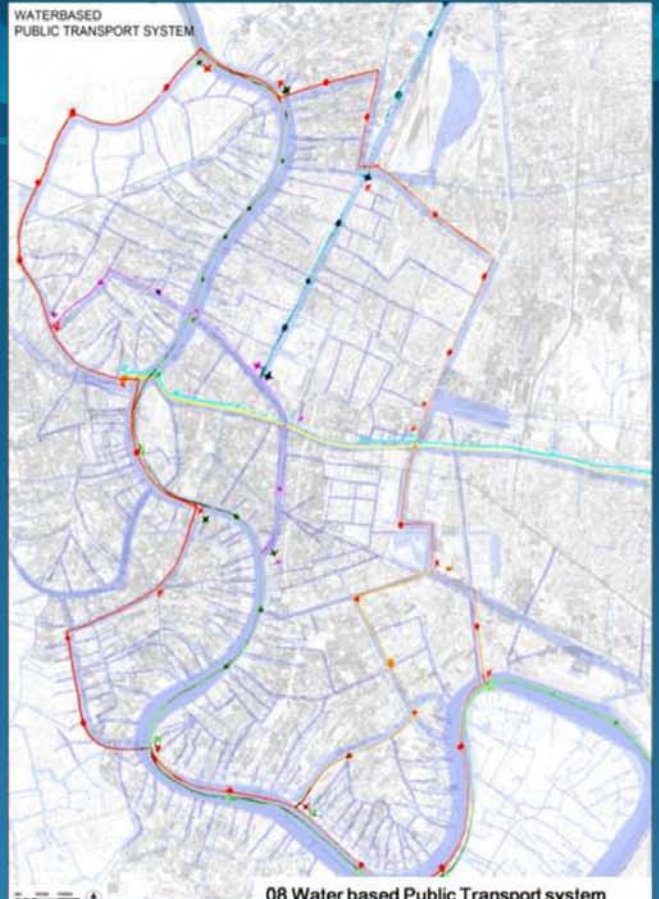


WATERBASED
URBAN REDEVELOPMENT



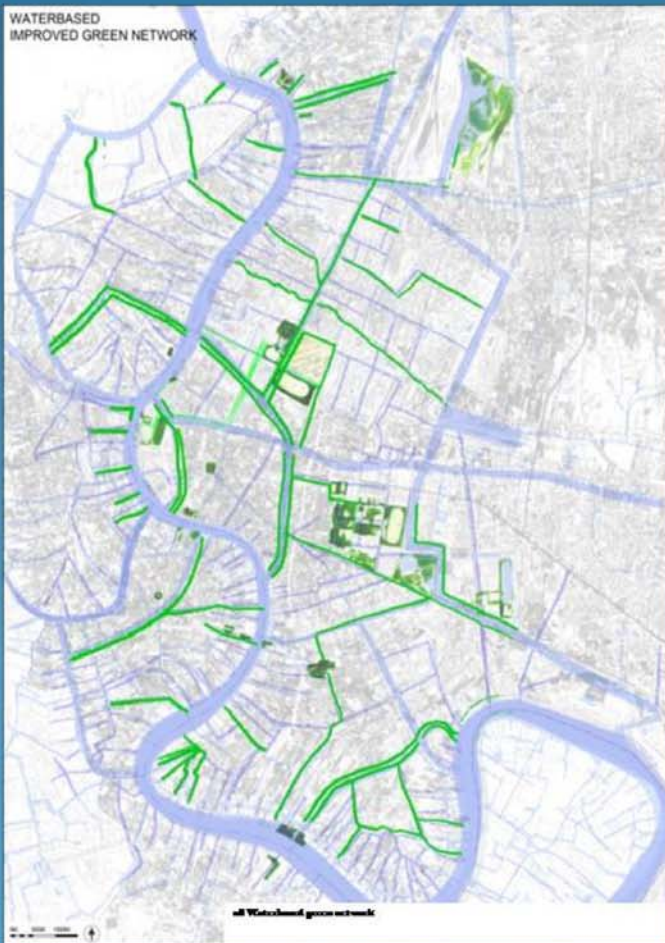
07 Water based Urban Redevelopment

WATERBASED
PUBLIC TRANSPORT SYSTEM



08 Water based Public Transport system

WATERBASED
IMPROVED GREEN NETWORK



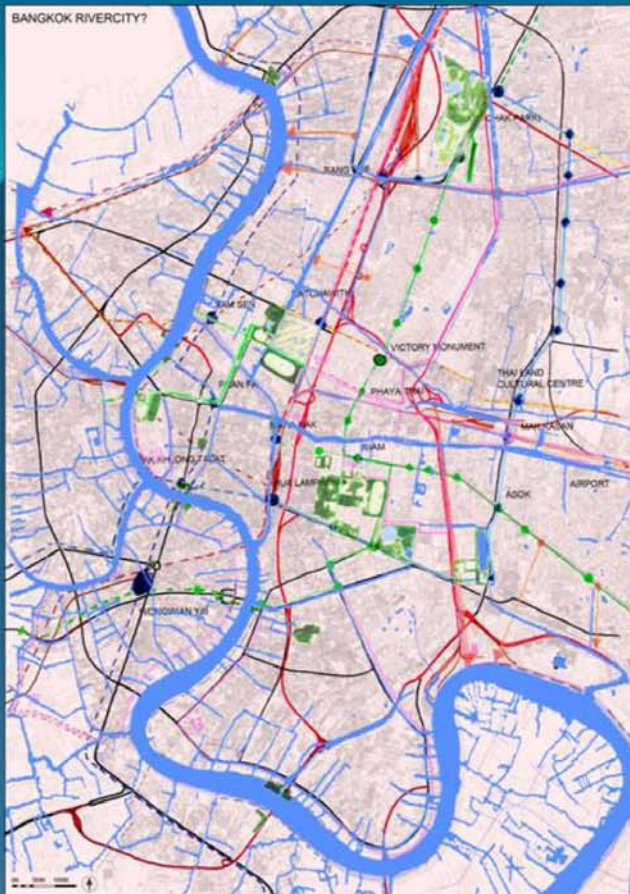
all Waterbased green network

WATERBASED
IMPROVED BANGKOK



09 Water based Improve Bangkok

- Garbage
- Recreational
- Maintenance



A system of public transportation

To solve the problem of traffic jam, Bangkok needs a competitive public transportation system, instead of developing always more the highways. This system has to mix different kinds of transports:

railways, which have to be improved and more connected between east and west sides of the river ;

a fast and efficient transport system to connect the big centre and the suburbs, to avoid the use of cars to come to work, and to reduce time of transport for people ;

skytrain and subways, which are a fast network in the big centre

buses, which could be improve in creating special ways,

and of course fast boats on the canals and the river ; improving network of canals, in making deeper the existing ones, and creating new ones, connected between them and with the river.

All these public transport systems have to be connected with each others, the junctions point between water, road, skytrain/subway/tramway and train will become node points, around which the city will become denser.

A system of performing economic activities

The harbour will be connected to the centre with railways, roads but also to a big canal. The goods will be able to be transported from the sea by these different transport modes, and especially the water, in the entire city.

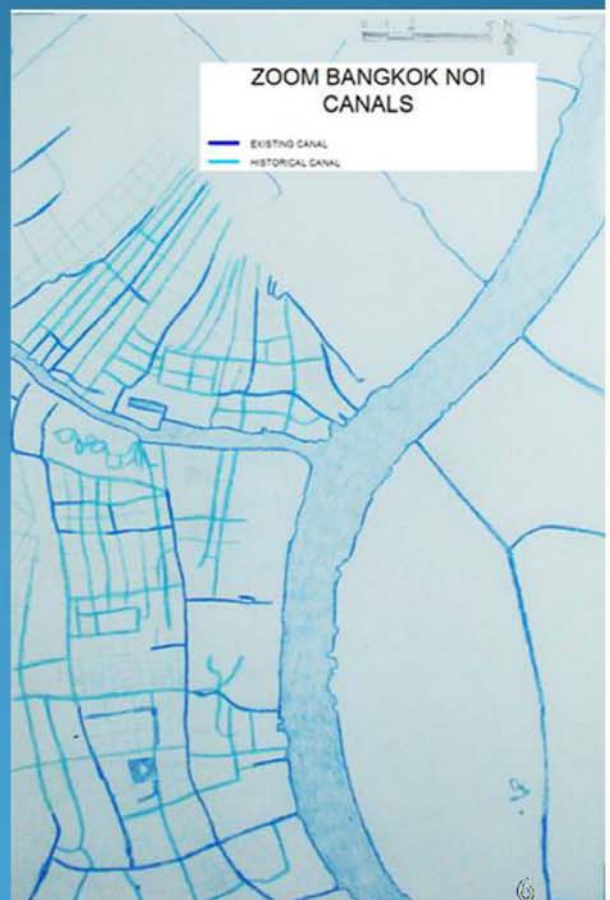
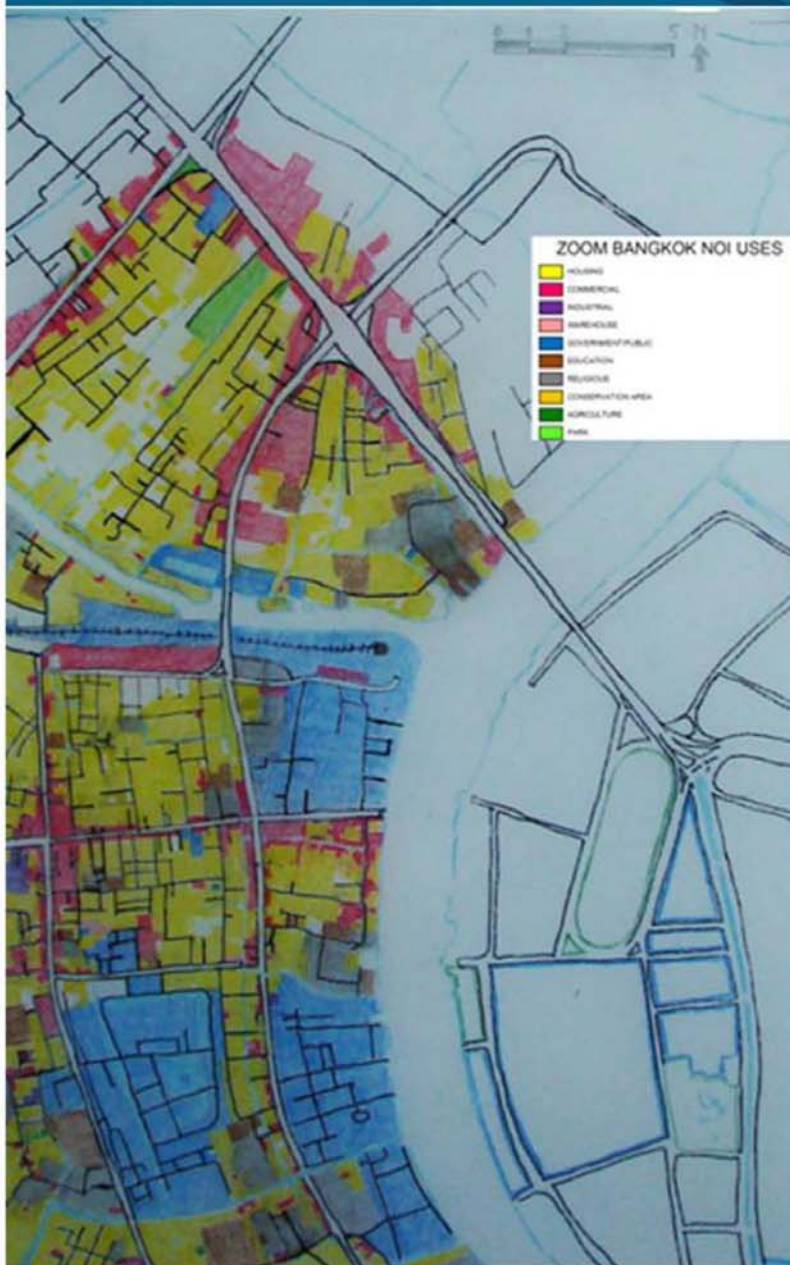
The water system will thus participate to the economic development and modernisation of Bangkok as the main urban area of the South East Asia.

A system of thinking a new relation with the street

In Bangkok, the network of main roads is dense, and there are many secondary roads. We go from main roads directly to perpendicular "soi". Main roads are thinking like highways, the objective is to make the traffic as fluid as possible, so the pedestrians are always obliged to go up in sky ways to cross the street.

The secondary roads "soi" are often dead ends which make them quiet neighbourhoods. The streets are a sort of public spaces where people can live without a lot of cars. The consequence is though that the city is turning back to the main roads: the facades of housings are not open to the street, we can see only the air con machines...

We are thinking that the two levels of streets organization belongs to the identity of Bangkok, and that it is not necessary to create secondary roads, which would only develop the cars traffic. Nevertheless, to recreate canals along the main roads will create an opportunity to transform them in "urban boulevards", where pedestrians, bicycles, public transports, cars and boats will be able to live together. In this objective, in order to improve the urban landscape, we suggest to gather and combine power lines underground or along buildings and blocks.



New opportunities in the water city: the example of Bangkok Noi

To allow to a maximum of inhabitants of Bangkok to have access to water, we are thinking that the solution is not to make big public spaces or walkways along the river. The existing way to have contact with the water in Bangkok is a "private" way, through houses which are near and on the water, and roads which are perpendicular to and ending in the water.

Water is everywhere underground. Since we wish to open as much canals as possible, a map of the 10th century was a support to identify the past canal system and use it for a modern water-based city.

Therefore, new opportunities for urban and traffic nodes emerge, such as Bangkok Noi area. Because of the extension of the existing hospital, the station nearby could take importance. Its location has to be changed, but we think it should take play an important role in the railway system and be connected to the water system. The Royal Barge Museum contributes to regenerate this urban area on the other side of the canal. The general principles (blue and green system, housing system) for Bangkok water city are "tested" in the ordinary urban fabric of the Bangkok Noi area, trying to connect canals as much as possible, offering views to the river bank, proposing a water public transport system, organizing housing (planning rules and property negotiation), taking opportunities from the existing...



A system of housing

Currently, Bangkok is a very mixed city, with lots of activities, high buildings, lots of different populations mixed in the same areas. We want to preserve this diversity, which is a part of the identity of Bangkok.

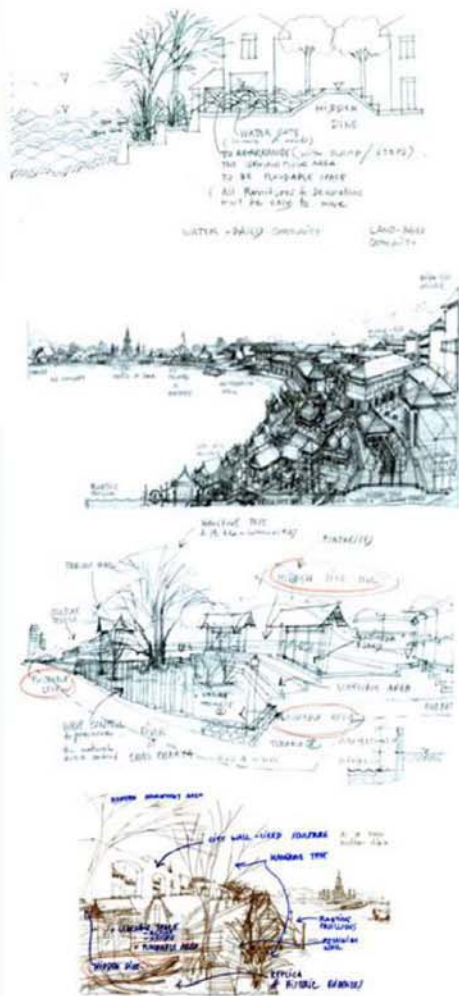
We suggest then to urbanize Bangkok in a more dense way, in the direction of the west and the south of the actual big centre. This new urbanization should allow to a maximum of people to be in contact with water. We propose to have low and middle height housing along the canals and the river, and high rise buildings in the back side so that everybody can have a view on the water.

We also propose to mix private and public housing in order to have mixed populations neighbourhoods. High rise buildings could be private operations or social housing. The same logic could be adopted for low rise buildings.

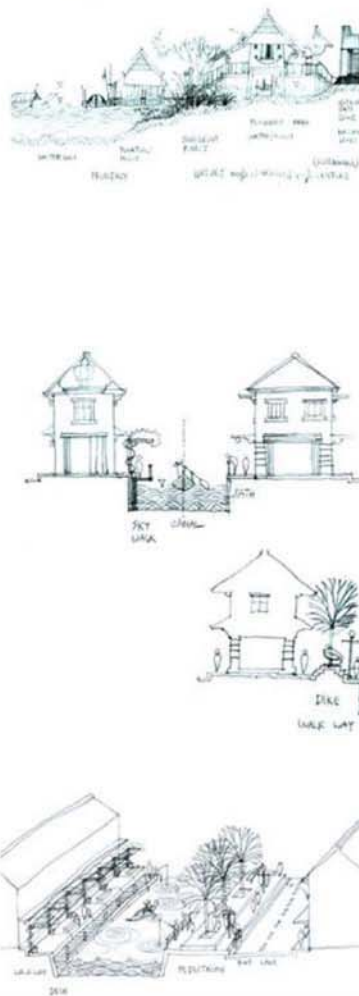
Public organizations could sell a part of their land to private real estate developers, giving them rules to build. At the same time, public body could earn money to build social housing or to give support to urban regeneration in small parcels.



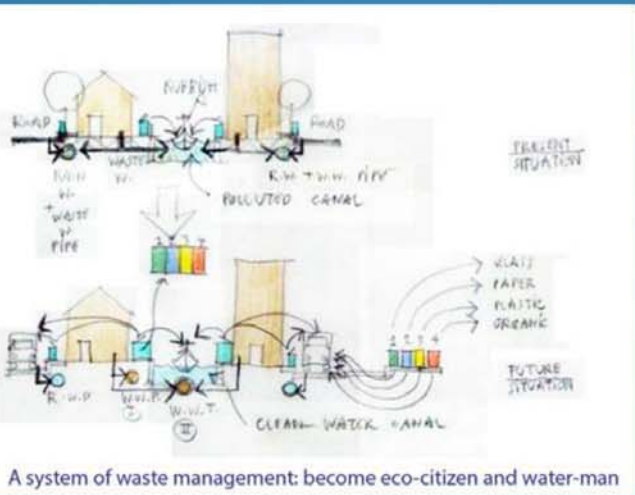
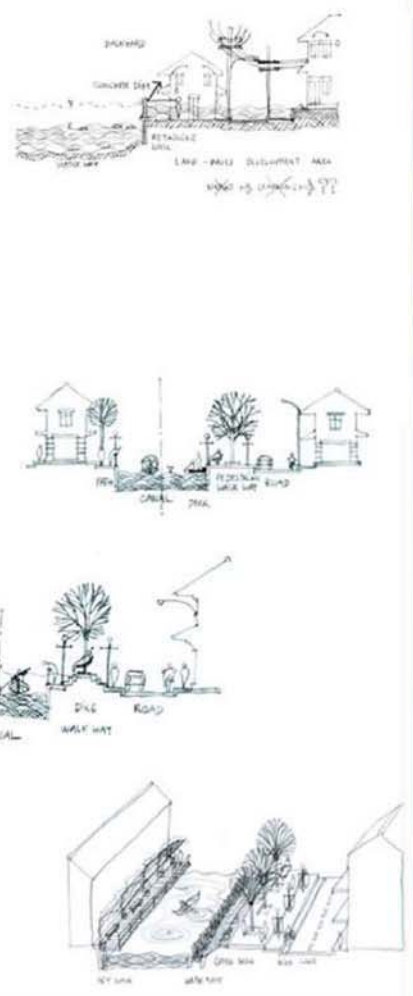
The future



The past



Today



A system of waste management: become eco-citizen and water-man

For a more efficiency water supply system;

We suggest to combine new pipes in the existing infrastructures (under canals/motor ways, sky train and bridges).

For a more efficiency sewage system;

We suggest to separate rainfalls sewers and sanitary sewers with different pipes in order to make the water processing easier ; build and strengthen an efficient sewage treatment plants and network ; have house hold's on site waste water treatment and drip pans for overflow ; require builders to integrate funding for waste water treatment.

A system of waste management: become eco-citizen and water-man

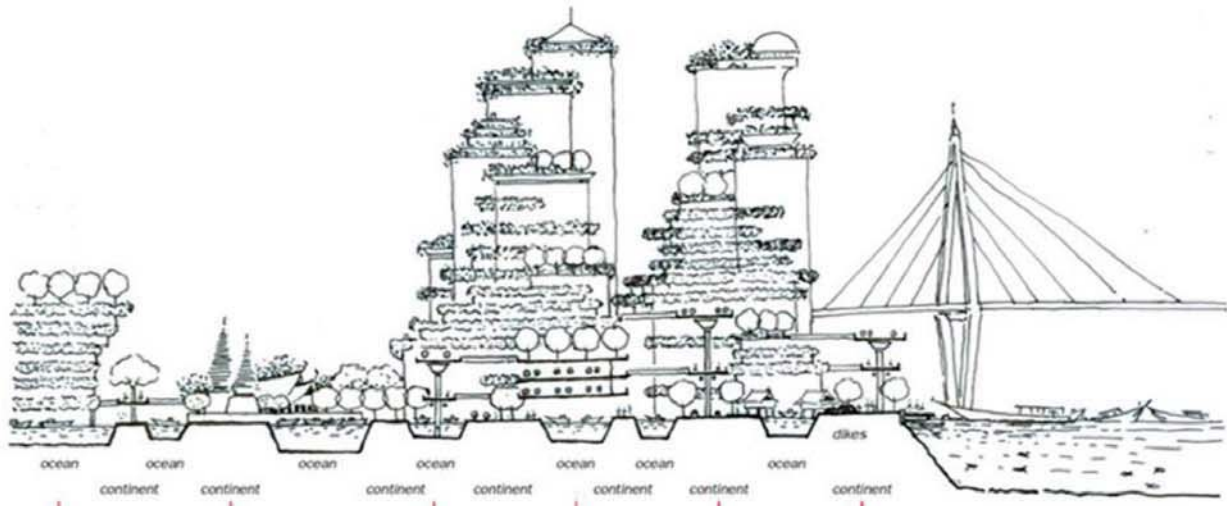
Using the water system to have a competitive waste management, in collecting waste with boats, will avoid to change the relation between inhabitants and the water, because the water is becoming a clean system.

Change of behaviour:

We propose to involve and encourage Thai people to turn to eco-citizen by consciousness raising with public campaigns and educational programs. "Clean your environment and the water, classify your waste", with : helping the waste processing by personal recycling at home and in public collection centres; put materials in different colours bins, banks or containers (glass, paper, plastic, metal, textile, organic, oil, small batteries, aso); involving the local communities; controlling the enforcement system.

Improve the collection and the treatment:

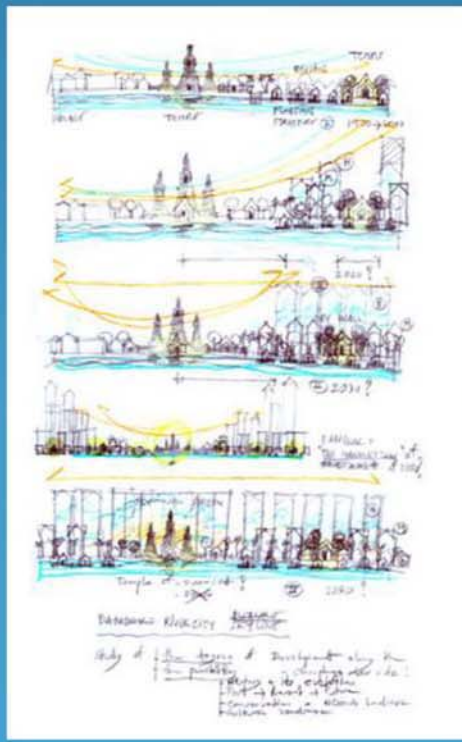
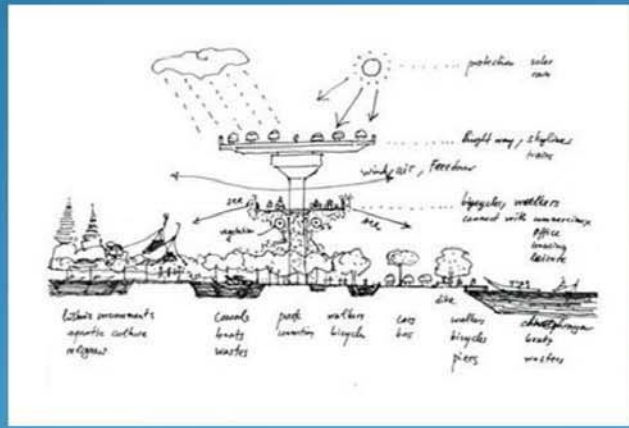
Under the authority of the BMA, we suggest to convince a private society to invest in a more efficient system and organize the capacity of the waste treatment in special units, taking care of the pollution risks and environmental impact (recycling, incineration and landfill), with : avoiding dumps and trash bags in the streets with a better waste collection with an improved daily separated collection and many collection points and centres ; organizing special "collecting days" for bulky waste ; using the transportation network to carry the waste (canals and river in priority, and roads if there is no water network); trying to maintain middlemen in the system.



Meru mountain, 7 oceans, 7 continents

Chao Phraya = Meru mountain

FLOOD ZONES	HISTORICAL CENTRE	CITY	CBD	CANALS	BANKS	WATERBASE CULTURE LIFE RESOURCES
boats	boats	skylines	trains	skylines	boats	
elevated walkway	walkways	bicycles	skylines	boats	bicycles	
bicycle path	floating markets	walkways	bus	bus	walkways	
low rise houses	wats	boats	cars	cars	water	
on the stilts	historical monuments	water	boats	subways	green	
water	thai culture	waste	bicycles	thai housing	shopping	
green	tourism	living	walkway	water	leisures	
flooding grounds	parks		water	green	tourism	
			green	waste	hotels	
			waste	tourism	living	
			shopping	leisures		
			offices	living		
			leisures	hotels		
			hotels	shopping		
			living	office		



4 AXES TO RENEW THE INTERRELATION BETWEEN BANGKOK AND THE CHAO PHRAYA RIVER

10 PROPOSITIONS FOR A RIVER CITY

At the end of the workshop, the 3 teams of experts did a presentation of their work in front of an international jury and a large audience made of professionals of the public and private sector. The jury was composed of representatives of the Bangkok Metropolitan Administration (BMA), Thai experts, representatives of the sponsor Raimon Land and international experts chosen by Les Ateliers.

What stands out from the jury's assessments and the local authorities' comments is that the outcome of the work is stimulating and often original, especially when considering that the teams were given very little time to produce their proposals. These proposals are understood as upstream ideas, and that some of them need to be verified, complemented with more accurate studies such as hydrology, marina or transport, and developed as urban projects.

The jury suggests to distinguish 4 prospective axes and 10 propositions of action whose undertaking will enable the city to create more connections with its river, and thus improving the lives of the inhabitants of the City of Angels. These propositions are briefly exposed in the following text and will be further developed in a handbook that will be written in the coming months.

1. THE RIVER AS A DEVELOPMENT AXIS

The 3 teams used the North-South river axis as the spine of the agglomeration development, promoting its symbolic and historical power. They suggest that this vertical axis should be structured around the current East-West development which favors the 'wings' of the agglomeration.

Proposition 1. Infrastructural nodes

The development of this spine implies strengthening the ties between the city centre (BMA area) and the parts of the agglomeration down and upstream. It also requires to link the North-South structure to the East-West by "infrastructural nodes". **Archipuncture** especially thought about these necessary joints and proposed a general plan to put these joints together.

Proposition 2. Connectivity

The North South axis should become a powerful axis for urban transport, in reinforcing the existing river transportation system, developing new ways to cross the river, and making better connections with the various land-based transport networks (**Flowing connectivity**).

Proposition 3. Towards a global river entity

Making such a river axis implies creating a new dedicated administrative structure, which will avoid piling up different authorities that can contradict or even conflict one another. **Flowing City** team put forward a model of "River Agency", based on experiences that turned out to be efficient in other countries.

2. THE CHAO PHRAYA RIVER, A PLACE FOR URBAN EXPERIMENTATION

Restoring the importance of the river within the agglomeration requires special and innovative projects that will highlight this change. All the 3 teams proposed to implement different urban experimentations.

Proposition 4. Model Operation for absorbing shanty towns

Making a new urban center at the South of the current one, using the harbor land that might be freed by the probable reduction of upstream activity of the port, implies facing the issue of the shanty towns that are located in that area. This is an opportunity to make a model operation of urban renewal.

Flowing City team drafted a plan, with a dedicated architectural typology.

Proposition 5. Reinventing the relation between housing and canals

All teams worked on regaining the intimacy between water and habitation. On top of the traditional form of stilt-houses, the team **Bangkok Watercity** suggests another concept of habitation, which is more land-based, and develops a close connection to the canals. They illustrate this proposition with a project on a plot of land in Noi.

Proposition 6. Manage urban planning by local action, rather than by zones

Gérer l'urbain par points (et non plus par zones)

The usual methods of zoning are not sufficient. The **Archipuncture** team suggests that usual planning should be complemented by a method known as "urban acupuncture" which on the one hand, tests the local effects of every project, and on the other hand, establishes a network of points/dots to act upon.

3. COMBINE FLOOD PREVENTION AND HABITATION QUALITY

The BMA currently manages the river with a strategy oriented on flood control, creating watergates, so as to protect the city and its inhabitants from the dangers of regular floods of the Chao Phraya. The three teams endeavored to find new proposals, putting forward that flooding is a feature of South-East Asia that is part of tradition (stilt houses, rice fields, banks...), and that the accentuation of water movements should lead us to negotiate with water, rather than opposing its power. These propositions need to be supported by hydrologic studies.

Proposition 7. Restore the canals as an urban network

"A water system for a water city and water people": The **Bangkok Watercity** team suggests a global approach in organizing land and canals, based on 3 actions: set/localize the urban development on the nodes of the canals and the river (intersections and loops), develop water-based transport, combine the canals with a network of green spaces.

Proposition 8. The open space of habitation: agreeableness and protection

Innovative solutions can combine new elements of quality of living with flood protection. The team **Archipuncture** develops "water retention gardens" for urban plots that promote both quality of life (a garden that sometimes becomes a lake by the windows) and a tool for containing water floods.

Proposition 9. Differentiate and prioritize the land use of the river banks

Developing this idea of not combating the floods with force, the team **Flowing City** drafted a concept of land occupation that depends on the distance to the river: stilt houses or amphibious housing in contact to the river, buildings and infrastructures further inland, away from the flood area of the river.

4. THE CONQUEST OF NATURE AND SEA

Proposition 10. Bangkok city more nature and maritime. Going down to the sea.

Up until now, Bangkok has set itself aside from the swampy dangerous seashore, difficult to build. The drawbacks of yesterdays are today's assets, and the swamps are now considered as important natural spaces. Moreover, the harbor activity will certainly move downstream to the deep sea, like every port city worldwide. The peninsula, the new harbor, the new industrial zone, and all renewals in the South will contribute to enriching urban practices of Bangkok. The team **Flowing City** offers a new vision of the city, with the river that reintroduces nature in town and opens Bangkok to the sea.

JURY MEMBERS

Friday 13th June 2008

CHAIR OF THE JURY

BANASOPIT	Mekvichai	THAILAND	Vice-Governor of Bangkok Metropolitan Administration
PERISSOL	Pierre-André	FRANCE	Chairman of <i>Les Ateliers</i> , Mayor of Moulins, Former Minister

SECRETARY OF THE JURY

PRELORENZO	Claude	FRANCE	Scientific manager of this professional workshop
WARNIER	Bertrand	FRANCE	Architect - Planner, Founder of <i>Les Ateliers</i> , Representing the Scientific Committee

JURY MEMBERS

Prof. Decha	Boonkham	THAILAND	Landscape Architect, Emeritus Professor, department of Landscape Architecture, Chulalongkorn University
Dr. Bundit	Chulasai	THAILAND	Dean, Faculty of Architecture of Chulalongkorn University
Dr. Varakorn	Samkoses	THAILAND	Economist, Assoc. Prof., Dhurakij Pundit University
Dr. -Ing. Kasemsan	Suwarnarat	THAILAND	Engineer, President of the Environmental Engineering Association of Thailand
Manop	Pongsadat	THAILAND	Architect, Faculty of Architecture, Chulalongkorn University
Kwansuang	Atibhodi	THAILAND	Architect, Faculty of Architecture, Chulalongkorn University
Dr. Ekkarin	Anukulyudhathon	THAILAND	Dean, Faculty of Architecture, Kasetsart University
Dr. Siriwan	Silapacharanan	THAILAND	Assoc. Dean, Faculty of Architecture, Chulalongkorn University
Pr.Dr Yongtanit	Pimonsatean	THAILAND	Faculty of Architecture, Thammasart University
TRAN Nguyen	Ngoc	VIETNAM	Former member of Parliament, Former Chairman of the Mekong Institute
GOTO	Taichi	JAPAN	Urban Planner/ Designer. General Manager of the Tenjin Meiji-dori Development Council
FIGUEIRA DE SOUSA	Joao	PORTUGAL	Geographer, University of Lisboa Director of Centre for research and Urban Innovation
AL NEDHAR	Abdullah	DUBAI	Architect, Planner and Urban Designer
EL KHOURY	Talal	DUBAI	Global Research and Urban Operation Advisor
VAN BEEK	Steve	USA/THAILAND	Writer, explorer and film maker since 1966 on rivers and river cultures, specially in Thailand
DUPORGES	François-Xavier	FRANCE	AFD - French Agency of Development
JOLY	Antoine	FRANCE	Ministry of Foreign Affairs, Former DG of city of Paris and Cannes
SALAT	Serge	FRANCE	Architect - Economist - Engineer, Researcher on Sustainable Cities
BAYLE	Christophe	FRANCE	Architect, Urban Project Manager in Paris, Former Chief Editor of <i>Urbanisme</i> magazine