

“Re-think the city for a low carbon future”

An international urban design and architectural design contest

YOGYAKARTA

KAMPUNG PAKUNCEN  
PROJECT : KAMPUNG TETANGGA

TEAM SEMERU



PARTNERS /

ADEME / INSTITUT FRANÇAIS D'INDONÉSIE / GREENBUILDING / DGHS  
/ LCED

ENSA STRASBOURG / ENSA PARIS BELLEVILLE / INSA VAL DE LOIRE



Strasbourg,  
école d'architecture



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# TEAM SEMERU

## SUPERVISORS

Haryo WINARSO (ITB)  
Loup M. CALOSCI (ENSAPB)  
Donny KOERNIAWAN (IDB)

## STUDENTS

Rendra KUSUMA (UNS)  
Isti NUGROTTA (UGM)  
Tiara R. DEBBY (UNDIP)  
Marisa SUGANGGA (ITB)  
Baptiste KIEFFER (ENSAS)  
Mélina VILLEFER (INSA)  
Victor GAUTRIN (ENSAPB)  
Margaux SIEFERT (ENSAS)



## QUOTATION

*Humanity's future, to say nothing of its prosperity, will depend on how the world tackles two central energy challenges: securing reliable supplies of affordable energy and switching to efficient low-carbon energy.*

Fatih Birol

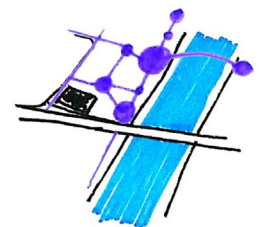
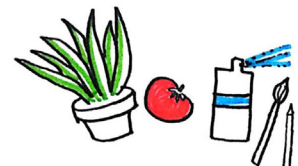
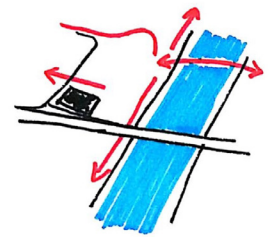


## ACKNOWLEDGMENTS

**W**e would like to thank all the organizers of this contest, and in particular our main interlocutors who were a great help throughout this stay in Yogyakarta, Franck MIRAUX and Mathieu CAILLE of the Green Building Agency.

## ABSTRACT

**W**ithin the framework of this competition, the SEMERU team, <sup>1</sup> composed of eight students and three supervisors from different cultural and disciplinary backgrounds, worked on the Kampung Pakuncen. In the context of urban rehabilitation and renovation and especially in the eastern sector of the village, we aim to offer more security against climatic hazards, and a better comfort of life to the inhabitants. We propose a program on Kampung organized around several strong ideas. First, the construction of a bridge over the Winongo River linking the village and its market to neighboring Kampung. Then, the creation of a house of the environment, which would be like a new centrality in the village like the house Joglo. It will be both an example of ecological architecture that respects Indonesian cultural and architectural traditions, and a new space for the community to meet and exchange. It will be a new place of knowledge, art <sup>2</sup> and leisure through the creation of modular spaces. Finally, by reorganizing the market area, which is both more open to Kampung and a producer of renewable energy for the whole community. Create more connections with the river and neighborhood, reduce mineralized neighborhood through a new approach to nature in Kampung. Improve the quality of interpersonal relations with the creation of new public spaces and the improvement and interconnection of existing spaces. <sup>3</sup> <sup>4</sup>





## INTRODUCTION

One of the particularities of Yogyakarta is that it is a very large city set on a plateau crossed from north to south by three very steep rivers. A road organization that never seems to suffer from this particularly difficult topography. Each bridge on these river axes is as many striking points of view on the city below. However, these areas are not relegated and disconnected from the road network. Administratively, the boundaries are shared between the shelf and the banks. As in Kampung Kapuncen, each sector manages its share of responsibility for housing, common areas and services along the river axis. Kampung Kapuncen is part of this type of urban training and is particularly well-connected to the city's transport network. Favored by cultural activities with rays of influences extended to the whole of Yogyakarta. Kampung Tetangga is the name of the project given by the SEMERU team in the framework of the competition.



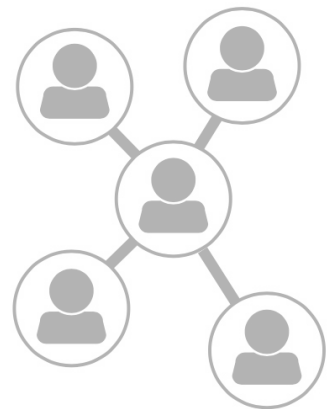


This notion of Tetangga has a double meaning, the first has to value the staircase, it is an essential element of the viaduct and the most frequent on the territory of the village. This territory with its exceptional density of habitation is characterized by its strong rugged topography marked by a hillside cutting it from north to south. The other meaning of the word Tetangga is that of the neighborhood, another major characteristic of the site, and which can also be translated by the intensity of the existing interpersonal relations in the village. It is not only an intrinsic reality of Kampung, it is felt at every moment, at every corner of streets and alleys. This double meaning is then intimately linked by the urban and sociological composition of Kampung Kapuncen. It is on these two notions which become one that we wanted to build a global project which cannot be summarized only by one of its parts.

Like a virtuous circle, we will see how each decision implemented in Kampung in this competition is interconnected and interdependent and ensures good programmatic coherence.

## What is Kampung Kapuncen ?

Kampung Pakuncen is a neighborhood where a real identity emerges that is particularly difficult to transcribe in words. It is a district with a real urban quality that owes much to its high population density combined with strong social and community cohesion. There is a real feeling of peace and serenity imposed by will or by force by the particularly constrained road fabric and not adapted to the circulation of motorized vehicles. It is therefore both a suffering neighborhood and one that enjoys its lack of accessibility. What shines give a particular and peaceful atmosphere, but which makes difficult its access to the inhabitants largely motorized today. But this difficulty of access, relative according to the inhabitants, allows for many of them, to maintain a good security of the places. They don't want to add or improve existing accesses that could harm the tranquility of their village.



However, this situation must not escape the great poverty and significant insalubrity of the habitat that reigns between its urban, administrative and natural limits. Today, the neighborhood faces several worrying problems. The main, and not the least, is the risk of flooding, a phenomenon produced by two factors in particular: one of the significant and sudden rise in the level of the river that flows at the eastern limit of Kampung during episodes of high flooding. The second is the frequent episodes of heavy rain that produce torrent of water that run down and wash down the steep, highly mineralized slopes that separate the lower village from the plateau, without anything being able to absorb or stop them.

Another issue we face in the development of the project is the issue of energy production and consumption management and waste management. What also is a global problem in Indonesia is also a global problem in Kampung, and greatly accentuated by its high population density and extreme poverty.

We will develop the various points of our project of urban and architectural requalification on the scale of Kampung and in particular on the most insalubrious zones and exposed to the risks and which are today widely located at the edges of the river. We will not break down this work according to the eight themes for reflection proposed in the framework of this competition. In our opinion, they are essential to the success of a coherent program, but they are as many transversal subjects that we prefer to develop through our different points of view.



Build the link and connect to the world.

Everyone his own way, everyone his own road:  
From the gutter to the stairs via the bridge.

**A**t present, there is nothing to serenely explore the banks from north to south from the Jalan kh Ahmad Dahlan Bridge to the limits of the RW 11 sector of Kampung. It is then in the overhang of the river, perched on the old walls inherited from the colonial era, too often collapsed, very damaged, even non-existent. The only crossing point from north to south is a path of organic and household waste that clings as best as it can to avoid being carried away by the strong current of the river. The contrast is then striking, between the two banks, facing East, a well-built wall, a solid base for a parapet which functions both as a public bench and a fishing point for the inhabitants. Then for a path shared by pedestrians and scooters.

**A**ll along the river, there are many road bridges, but very few are for the exclusive use of the inhabitants themselves. By the particular topography, these footbridges have a use limited only to the pedestrians and inhabitants of Kampung that they make it possible to connect. Often located well below the level of the main city plateau, they mainly play a secondary and localized role of connection between different parts of the city. There then emerges a city from below and a city from above often transposable to the economic level that each represents a majority. Kampung Pakuncen is no exception to this rule and is an example of this competition.

**T**he project is to re-establish this contact between the two shores, as a link between the two communities and that has been named “Tetangga Bridge.” A bridge built mainly of bamboo using Indonesian ancestral techniques. It will be capable of supporting a scooter path unit as well as pedestrians. It is a remarkable work of art and architecturally characteristic of Indonesian know-how in this field. This bridge is strategically located in the alignment of the mosque, an essential crossing point for each community and allowing new access from Kampung Kelurahan Ngampilan to the Pakuncen Market.





This bridge connects the new shoreline, approximately three meters wide, including parapets and sidewalks. The Jalan Tetangga is the new axis, the backbone of the new urban system, linking the different neighborhoods, the different RTs from north to south and by the bridge, from west to east. Offering a new view and a real landscape continuity on the river, a new public space where only pedestrians and small vehicles can circulate. This road connects the south of the village by two separate lanes, one under the road bridge and a second axis at a food market level to join the road that crosses the whole town from west to east towards the ring road. This last passage that bypasses the river is the only one possible to connect Jalan Tetangga with Jalan Yogyakarta - Wates. Because the slope between the natural ground of the Kampung located at the edge of the river is much too important to be caught up in such a short distance while remaining trafficable and pleasant.

The atmosphere and authenticity of Kampung are not only reflected in the architecture and density of its habitat, it also appears on its road network, in the organization of its urban fabric which naturally becomes synonymous with social fabrics. And if we could not preserve much of the existing habitat, because greatly degraded with regard to the whole of Kampung and in particular the plateau located further west, our bias was to preserve as much as possible its road fabric. But we are aware that the latter is not always adapted to the life and wishes of the inhabitants of Kampung. It was necessary to remain in a global coherence to the whole village as well as to the new developments as with the creation of the axis of the bank and the new bridge-bridge. It was necessary an improvement which must pass by an enlargement of its frame and this in order to allow a better circulation while ensuring a controlled flow to preserve the serenity of Kampung. The issue of fire risk on Kampung is another vulnerability of Kampung after the flood risks. Following the analysis of the urban fabric and our will to preserve as much as possible the authenticity of the place, the main factor of tourist development of Kampung, it came to us with the idea that we could not exaggeratedly open the district of an access fireman. We had to find another way to ensure the safety of the population and its natural surroundings. On several occasions, we have noticed the low use of the many water wells that punctuate Kampung. It seemed obvious to us that their use could then be for the exclusive use of automated fire protection such as sprinklers.





The sewer network and gutter will have to take place under the new roadway and take into account the steep slope of the territory of Kampung. A network currently exists in the village, but it seems undersized compared to current needs. We will take advantage of the redevelopment of street and lane profiles to review the entire network and resize and prioritize it. Common septic tanks will be installed in the renovated areas located mainly on the administrative borders of Kampung to ensure their emptying by the surrounding main roads.



## From the entrance door to the balcony: Atmosphere, atmosphere...

We did not have a preconceived idea of how to do urban rehabilitation when we made our first visit to the Eastern sector. We had our mental patterns to imagine what could survive and be replaced. We wanted to preserve as much as possible the unique atmosphere of Kampung while ensuring a minimum quality of life for the inhabitants. To legitimize our choices, we have implemented a list of selection criteria. This allowed us to start to know that we needed to destroy much more than we thought. These criteria had to be as varied as possible in light of the time available to us to conduct this analysis. Like a game of «Who is it?» We proceeded by elimination. Thus, we thought that the absence of water and electricity meters for each house could be a first criterion. For their absence would have meant the effective illegality of the installations and therefore their planned destruction. It was soon conceding that the presence of a meter could not be an objective indication as to the legality of a dwelling in Indonesia. The next criterion is the actual per capita area. The current average is about 5 square meters per inhabitant, which is well below international standards for healthy housing. Then we coupled two particular architectural criteria, the presence of borrowings from Indonesian vernacular architecture and the presence of tile roofs, which are the expression of a use of traditional materials and techniques. Finally, the last criterion is the quality of access to housing both in the public space and in the intimate space.

To meet the needs of the inhabitants, we have implemented several types of habitats, on one to two levels maximum. Depending on the location of the kampung, and the orientation, facing the river and the hillside produced by the protective walls, we have multiplied private rather than collective entrances and the presence of balconies and terraces. The improvement of the habitat of each inhabitant also passes by an individualized and easy access to the sanitary contrary to the current situation, or the great majority of the inhabitants must go in common spaces. Only communal laundries could continue to exist in Kampung, as these are still considered an important social space by many inhabitants.





## The market is the Green market: the march of progress towards energy and food self-sufficiency.

**T**he market at the south-west entrance to Kampung is a new entrance to the village and the riverside. In order to open the market on Kampung and to develop the economic attractiveness and to make of it a new poll of activity, we raise the whole of the existing habitat near the sector of the zone to be rehabilitated to improve the accessibility there and to create new outside commercial spaces. The destroyed dwellings will be moved several meters to the east, and close to the newly created traffic axis at the river's edge.

**I**t is an exceptional space, as much for its activity as for its possibilities offered within the framework of the development of solar energy production on a large scale. We have chosen to position all of Kampung's solar panel needs in a single location. The roof of the market seems to us best able to support this project. It also allows a significant economy of scale in the installation of panels and its potential extension as the community's needs evolve. Because the total surface of the current roof is about 1400 m<sup>2</sup>. After calculating the needs and production capacity, we could meet all the needs of Kampung with almost total market coverage. To do this, it is still necessary that the latter completely revise the architecture of its support. Both for its natural lighting, currently non-existent by the creation of worked sheds allowing an efficient natural lighting and reducing at the same time, the particularly important electricity consumption of the market. Locating all of Kampung's energy needs in one location, rather than individualizing it, will reduce installation costs and facilitate maintenance, as well as make it easier to expand the program over a larger area in the future.



**B**ut we have questions about the choice of solar energy to power Kampung, because it is expensive to buy and produce, and especially at the recycling stage since the average life of a solar panel is only 15 years. Thus the return on investment is not always obvious and must be discussed and thought through upstream. Similarly, the power delivered is proportional to the purchase price of a square meter of solar panels. Not to mention a particularly difficult climate that does not make all the efficiency that one could expect from this means of energy production particularly efficient. We could couple this production by another more localized in Kampung and for punctual uses mainly. It is the use of the force of the current of the river as well as that of the rainwater flow on the territory of Kampung to do turn turbines. Although its implementation is different and energy possibilities uncertain, given the population's demand, its cost and maintenance remain largely favorable to this type of technology.

**A**fter all, a reorganization and pooling of agricultural production resources for food production will be put in place for the whole of Kampung. Making it possible to rationalize the spaces devoted to agricultural production and poultry farming. Part of the production could be sold on the nearby market and offer a significant financial supplement to the community and its management. We propose to put its means of production all along the slopes separating the East and West part of Kampung and mainly on the most northern part. It is a slope with a lower gradient allowing an easier use of space.





## The public spaces: Species of spaces in the service of the inhabitants and the tourist activity.

**Y**ogyakarta, a strong community of street artists, has existed for many years. All you have to do is walk around the city, around the infrastructure, see the walls and the many galleries to be convinced. It is not for nothing that Yogyakarta is characterized as Indonesia's cultural capital. Kampung Kapuncen is no exception and is today one of the new emblematic places of cultural production in Yogyakarta. It is, first of all, a place of culture and knowledge, through the unique presence of many institutions, located mostly on the outskirts, with a famous art gallery opened since the seventies and a museum of national rank being open at the moment these lines are written. During our numerous discussions and debates, the inhabitants insisted for a long time on the need for a new place of exposure of the local culture. These new places of artistic production can be expressed in two ways on Kampung. First, through the house of the environment which would integrate a modular space allowing temporary exhibitions of local artists. But also by the massive and unavoidable presence of the walls of the secret Garden Restaurant which can become a new place of reference dedicated to Street Art.

**T**his restaurant and café is a high place of entertainment in Yogyakarta, it is a vast right-of-way of 2000 m<sup>2</sup> surrounded by a wall three meters high. It inflicts on Kampung its massive and unavoidable presence. A wall that seems badly lived by the inhabitants who border it, but more widely still by all the inhabitants of Kampung. Representing both a hold and a massive visual barrier, its morphology offers a new source of artistic expression through Street Art culture. A project that could be recurrent and make artists compete each time different for an annual appointment.

**I**n addition to the rehabilitation of existing public spaces, sports fields and leisure activities, we have the project to create additional new public spaces and in particular near the mosque and making the natural link with the Tettengga Bridge, then by expanding the play area to the northeast of the market connecting the latter to the house of the environment and the road to the shore.



## The house of the environment: When what is natural is driven off, it returns at a gallop

A new centrality for the Kampung community: a dual community approach between preserving local know-how and a new vision of environmentally friendly housing. For this house of the environment to live and integrate as well as possible into the fabric and life of the community, it must fit into an existing. It must carry a clear and optimistic message about Kampung. Like the Tetangga Bridge, it must become a symbol of the village renewal and cohesion. The bamboo house, unshakeable witness of the place, one of the first houses built in Kampung when it was still only a bamboo forest. A man and his family built with the means present on the site, and only those, the house that will mark the birth of the village. Today, although remarkably well preserved, it must leave its place on the shore path. To keep the spirit of this architecture remarkable for its simplicity and timeless by its architecture, we decided to rebuild it identically in another place in Kampung by giving it a new function and relocating its current owner. It would become an essential component of the home environment. Another facet of vernacular architecture produced by Indonesian engineering. By the presence of a large terrace, and its situation overhanging the river, it could become an essential place of the village to gather the community and the tourists of passages.



*Notice that the strongest tree yields easily while the bamboo or willow survives by bending downwind.*

## CONCLUSION

For the SEMERU team, the main aim of the competition is to offer a new approach to the development of Kampung Pakuncen. We have tried to offer a project at different scales of intervention that is both economic and sustainable. An urban and architectural Low-Tech and Low-Carbon program so that each inhabitant as well as political decision makers and economic actors can make the most of it. We are aware of the important and crucial stakes and we have the secret hope that it will be able to help the inhabitants, as much by the solutions and the new ideas that we have been able to bring them to improve their daily lives, as by this work of consultation and new pedagogy carried by the competition. If all the proposals which will be made within the framework of this competition are not implemented, we think without hesitation that this will have created in them the desire to open up to new practices of life and management of their daily lives.

We were talking about a global impression on the city of Yogyakarta, an impression that is in no way unique to this city and that is found to a lesser extent in different cities around the globe. This lower city, upper city relationship, this topographical and geographical dichotomy that links different economic and social levels that extends to all urban scales, from the islet to the RT, from Kampung to the city district. As we said, the proposed project must make it possible to reduce its inequalities of treatment on the urban space, of the collective as of the intimate.





## AFTERWORDS

**F**ew of us knew the field of analysis and project before coming to Yogyakarta. Full of apprehension and curiosity, during these two intensive weeks of work, we shared great moments of exchange and complicity with Indonesian and French students as well as the inhabitants. We felt a real involvement of the inhabitants of this competition and our proposals for their Kampung. We felt their expectations and that is what greatly motivated us. We are convinced that they have learned as much from us as we have from them, and that is perhaps even more important than the result of this competition. It was a rare opportunity to participate in this contest under such conditions and we thank all the organizers for allowing it to take place.







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27 APRIL 2018



## WHO'S WHO ?

### SUPERVISORS

Haryo WINARSO (ITB)  
Loup M. CALOSCI (ENSAPB)  
Donny KOERNIAWAN (IDB)

### STUDENTS

Rendra KUSUMA (UNS)  
Isti NUGROTTA (UGM)  
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Baptiste KIEFFER (ENSAS)  
Mélina VILLEFER (INSA)  
Victor GAUTRIN (ENSAPB)  
Margaux SIEFERT (ENSAS)

# SUPERVISORS



Haryo WINARSO

ITB  
PROFESSOR  
URBAN DESIGN  
ARCHITECTURE

Planning and  
policy development

Loup M. CALOSCI  
PhD candidate in  
Architecture

LECTURER  
ENSAPLV - SORBONNE  
GEOGRAPHER - URBANIST  
ARCHITECT



Donny KOERNIAWAN

IDB  
LECTURER

ARCHITECTURE &  
URBAN DESIGN

# STUDENTS



Melina VILLEFER

INSA CENTRE VAL DE LOIRE  
École de la nature et  
du paysage

MASTER

Baptiste KIEFFER

GEOGRAPHY LICENCE

ENSA STRASBOURG

MASTER

Architecture, structure et  
projet urbain (ASPU)

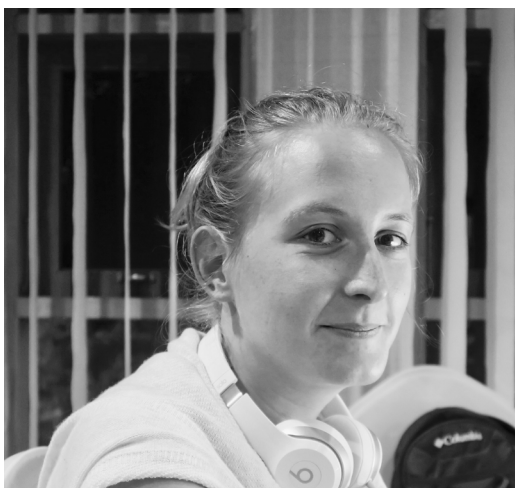


Margaux SEIFERT

ENSA STRASBOURG

MASTER

Architecture, structure et  
projet urbain (ASPU)





Victor GAUTRIN

ENSA PARIS BELLEVILLE

MASTER ARCHITECTURE

TIARA R. DEBBY

UNDIP

URBAN PLANNING



Rendra KUSUMA

UNS

ARCHITECTURE &  
GRAPHIC DESIGN







Isti NUGROTTA

UGM

URBAN DESIGN

Marissa SUGANGGA

ITB

URBAN DESIGN





## TECHNICAL APPROACHES

# The Drainage and Waste Water Management Systems

The drainage system will be implemented according to the contour of the site. Some of the existing drainage at the certain area of the site is not considering the contour. That's the reason why some of the area will be flooded because of the flow of gray water that is stuck at a certain point of the residence area. Beside that, the flood can occur because of the capacity of the pipe or drainage are not enough for the water that will flow through it. There will be 3 types of drainage. First, the primary drainage will be Winongo River (i.e. it has been decided on the planning document of Yogyakarta that Winongo River is one of the primary rivers of the Yogyakarta City). The second one is secondary drainage and lastly is the tertiary drainage. The capacity of the drainage will be enlarged into 0.5 meters width and 1 meter high and gives 0.5 m<sup>3</sup> of the total volume of the tertiary drainage. 1 meter width and 1.5 meters high and gives 1.5 m<sup>3</sup> of the total volume of the secondary drainage.

A septic system is a highly efficient, self-contained, underground waste water treatment system. It is included as one of the sanitation systems. With 1 m<sup>3</sup> of biogas, about 60–100 What can be used for 6 hours for turning of lamps at a house, three times to cook for 5–6 people and it equals 1.25 kWh (Gladstone (2006) dalam Sambang & Haq, 2010). There will be a different solution for each RT (i.e Rukun Tetangga). RT 48 does not have any septic tank at their house. That caused a bad and unhealthy environment. To solve that issue, the communal septic tank will be implemented on RT 48. This is the calculation of the communal septic tank :

$$A = P \times N \times S$$

$$A = 299 \times 2 \times 40$$

$$A = 23.920 \text{ litre} / 23,9 \text{ m}^3$$

with:

Th = the minimum time to hold the settling > 0,5 l/day

P = The amount of the inhabitant

Q = The water flows, liter/person/day

$$\text{So, } Th = 2,5 - 0,3 \log (299 \text{ people} \times 10 \text{ liter/org/hari}) > 0,5 = 1,5 > 0,5 \text{ l/hari}$$

$$B = P \times Q \times Th$$

$$B = 299 \times 10 \times 1,5$$

$$B = 4,485 \text{ m}^3$$

$$A + B = 23,9 + 4,48 = 28,5 \text{ m}^3 \text{ m}^2$$

The capacity requirements of the water (B), is :

The dimension of the septic tank is:

The height of the septic tank (h) = 1,5 m + 0,3 m ( free board)

The comparison of the width of the septic tank (L): the height of the septic tank (P) will be 1 : 2

the width of the septic tank (L)= 3 m and the height of the septic tank (P) = 6 m

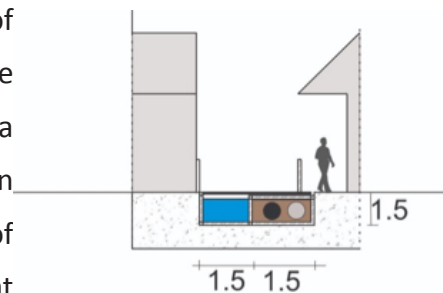


Fig. Secondary Drainage

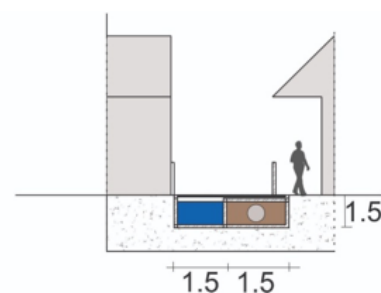


Fig. Tertiary Drainage

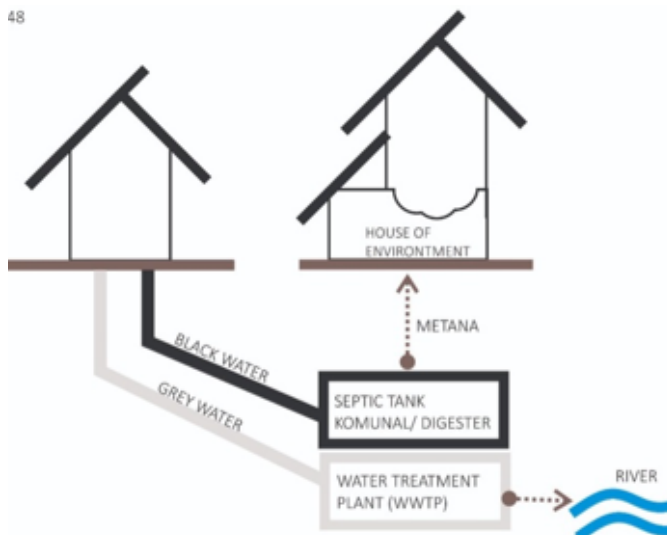


Fig. The flow of black water and grey water through the WWTP and Digester

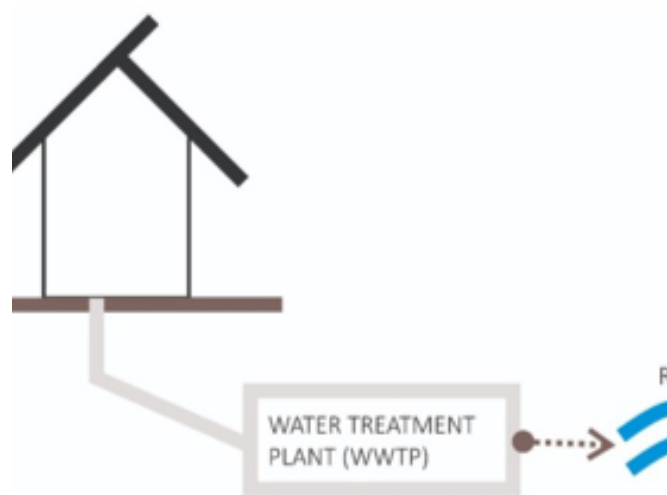


Fig. The flow of grey water through the WWTP

The septic tank will be located at the near of the river (i.e below the roads) for each RT of the pilot perimeter.



## The Solar System

Based on the current situation within the perimeter Pakuncen, the inhabitants use on average 1 kWh of electricity per day and per household, to be able to produce, daily, up to 160 kWh of electrical energy, it is required to install 320 m<sup>2</sup> of solar panels. The quantity of Solar Radiation in Indonesia is quite high, averaging about 4,5 kWh/m<sup>2</sup> per day in all parts of Indonesia (Syaifuddin & Rohiman, 2012). It means that every 1 kW Photovoltaic (PV) can produce 4.5 kWh of electrical energy a day. Photovoltaic systems (PV system) use solar panels to convert sunlight into electricity. A system is made up of one or more solar photovoltaic (PV) panels, a DC/AC power converter (also known as an inverter), a racking system that holds the solar panels, electrical interconnections, and mounting for other components. This system will be implemented only as Solar Rooftop System.

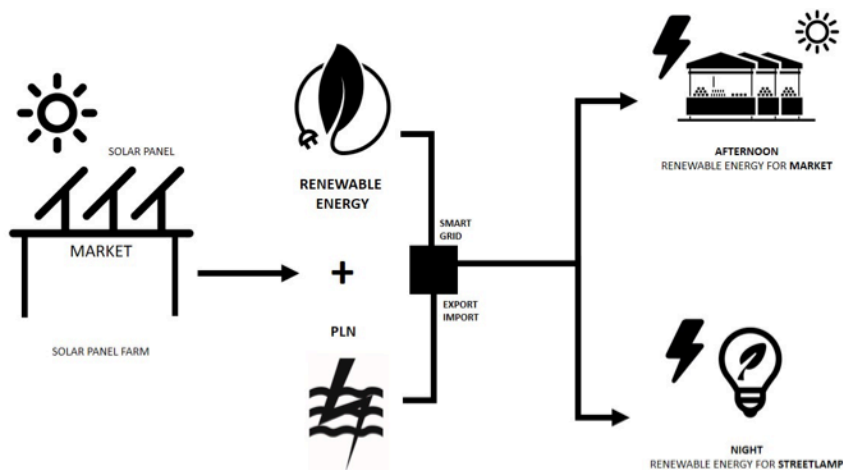


Fig. Electricity System

The solar panels convert sunlight into direct current (DC). After that, an inverter converts electricity from DC to alternating current (AC). This AC will power the houses, buildings or street lamps. At the pilot perimeter, the smart grid system will be used. It combines the renewable energy and the electricity provided by the PLN (Perusahaan Listrik Negara). When the electricity provided by the solar panels are low, the electricity from PLN will increase to supply the needs of inhabitants. In the afternoon, the electricity produced by the solar panels will be used for the market. At night, the electricity will be used for houses or street lamps (if only there is extra electricity).

## The Rain Water Harvesting

Rain water runoff that is usually disposed directly to the river will be collected in a storage tank, and then treated so that it meets the drinking water quality standard and used as a clean water resource in Kampung Pakuncen. The drainage is planned to be separated from the gray water. This way, the drainage will be functioning as the rain water harvesting. The flow of the drainage will consider the contour or topography of the site. This way, the flow will only rely on the gravitation. The water then will be storage at the water tank, which will be located near the urban farming area. This area is still at the upper level of the site. Therefore, the water can flow to the lower level and can be the water supplied for the houses there.

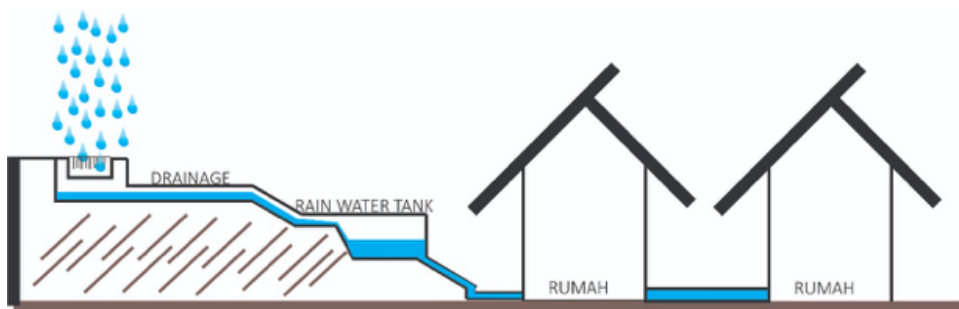


Fig. The Rain Water Harvesting System

The main issue found at the site is related to clean water resources. The residence at the upper level is actually still has the clean water resources from the wells, this is the reason why the wells at the upper level will be preserved. Besides being used as the clean water resources, the water storage from rain water harvesting systems also used to water the plant at urban farming.

## The Solid Waste Management

The solid waste management will be divided since household scale. After that, every household will throw it to the garbage can (located at every entrance of the path). The garbage cans will be served for a half of the RT (i.e. every RT has 1 path and 2 entrance, and the garbage can be at both sides of the entrances). The garbage man will take the rubbish and bring it to the TPS (Temporary Dumping). At the TPS, the people will take the organic waste to the digester/ composter and the inorganic waste will be brought to the waste bank. The organic waste processed at digesters can be converted to be methane (biogas) and the organic waste processed at composter will be turned to be composted.

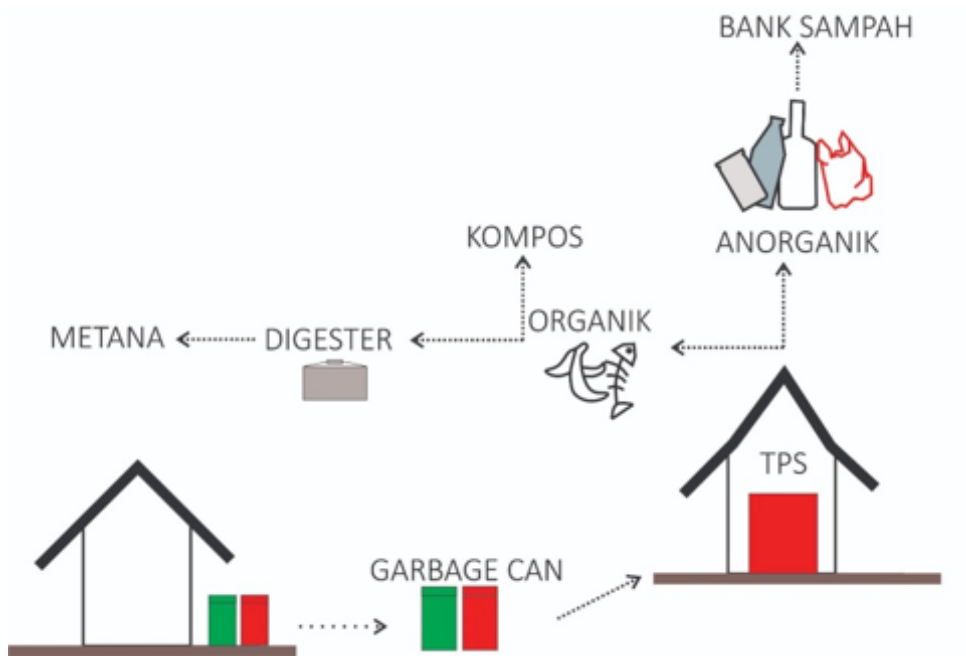


Fig. Solid Waste Management

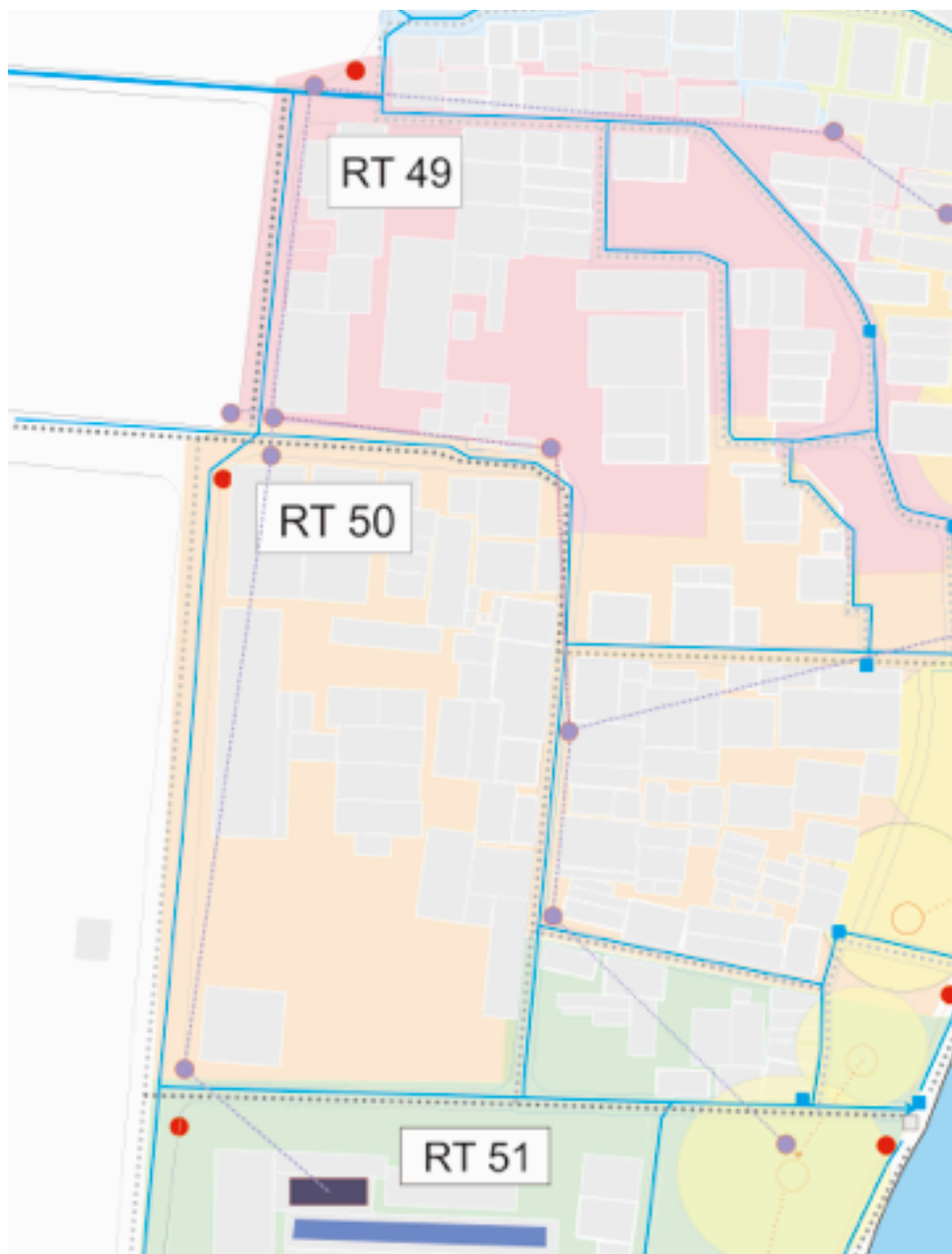


Fig. The Utility Services of The Site



## AXONOMETRY PROJECT



ACTUAL SITUATION

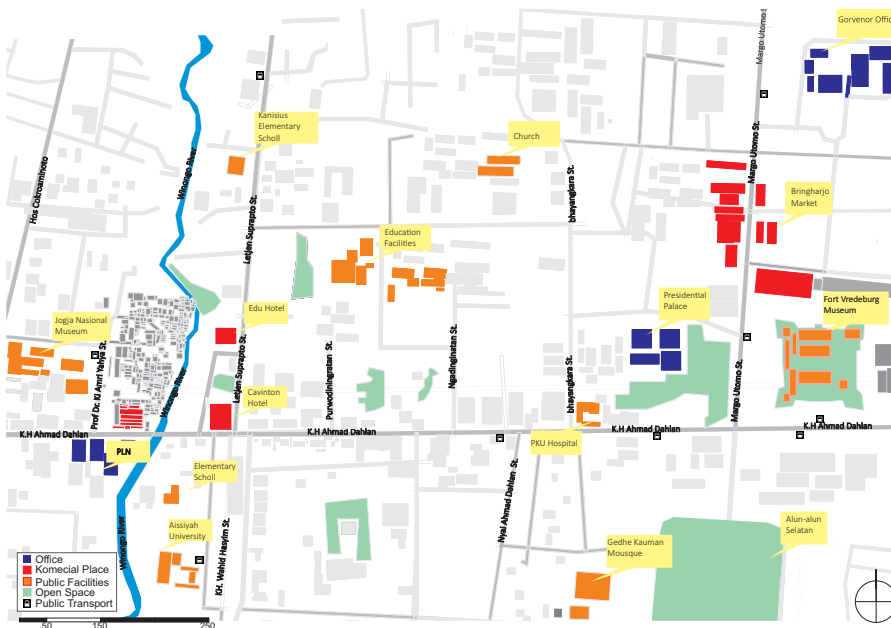




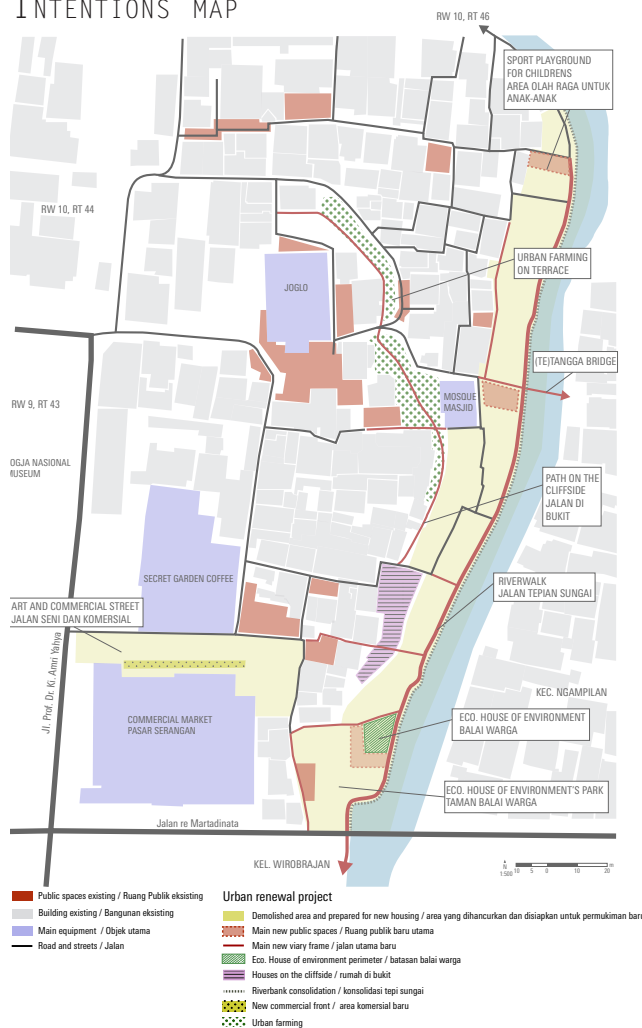
**PRESENTATION**  
**27 april 2018**

## CONTEXT AND DIAGNOSTIC

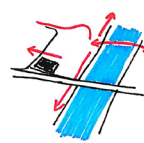
## CONTEXT MAP



# INTENTIONS MAP



1



MENCIPTAKAN LEBIH BANYAK  
HUBUNGAN DENGAN SUNGAI DAN  
LINGKUNGAN  
SEKITARNYA

Re create more connections with the river and the neighborhood around

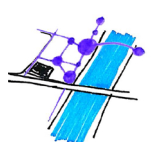
2



MENGHADIRKAN KEMBALI ALAM  
DAN SENI UNTUK KAMPUNG KOTA

## Bring nature and art in the kampong

(3)



MENJAGA INTERAKSI SOSIAL DAN  
KEANFAN LOKAL DENGAN SALING  
MENGHUBUNGKAN

Keep the strong social interactions and culture with new connected public spaces

4



MENINGKATKAN KUALITAS LINGKUNGAN  
HIDUP DALAM KEWASTAN BERKEPADATAN  
TINGGI

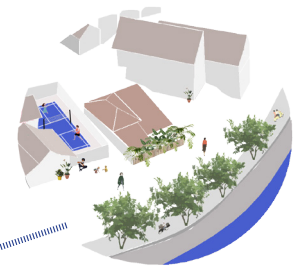
Better living conditions  
in a high density area

TEAM SEMERU

MELINA VILLEFER - MARISA SUGANGGA - BAPTISTE KIEFFER - TIARA RIZKYVEA DEBBY - ISTI NUGROHO-  
RENDRA KUSUMA BERLIANTO - VICTOR GAUTRIN - MARGAUX SEIFERTLOUP CALOSCI - HARYO WINARSO

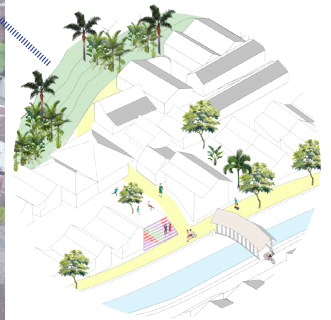






## Zoom1\_

A NEW CENTRALITY  
BETWEEN THE RIVER  
AND THE HILLSIDE



## Zoom2\_

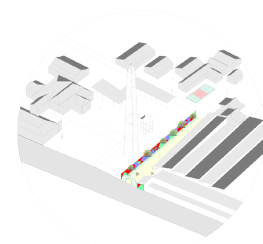
LIVING IN THE  
HILLSIDE CLOSE TO  
THE RIVER

## Zoom3\_

A NEW ARTY AND  
COMMERCIAL STREET  
FOR THE NEIGHBORHOOD

## Zoom4\_

UNDER THE BRIDGE



1/500

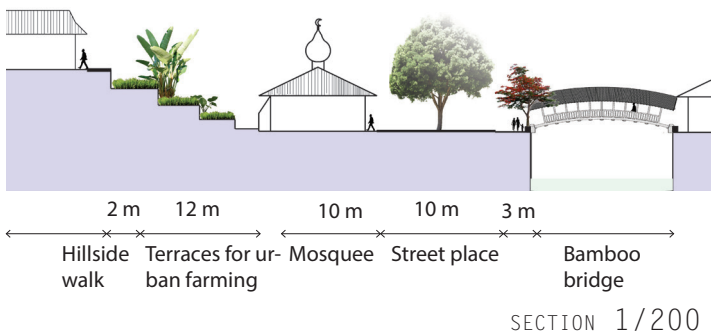
### TEAM SEMERU

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RENDRA KUSUMA BERLIANTO - VICTOR GAUTRIN - MARGAUX SEIFERTLOUP CALOSCI - HARYO WINARSO





# Zoom1\_ A NEW CENTRALITY BETWEEN THE RIVER AND THE HILLSIDE



THE MAIN IDEA WAS TO RE-ESTABLISH THE LINK BETWEEN: THE INHABITANTS AND THEIR CLIFF-SIDE, THE INHABITANTS AND THEIR SOIL BY PROMOTING URBAN FARMING. THE TETANGGA BRIDGE IS ALSO A WAY TO LINK THE TWO VILLAGES.

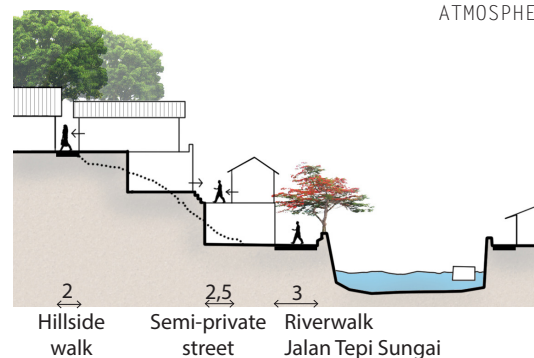
IDE UTAMA ADALAH UNTUK MENGEMBALIKAN KETERIKATAN ANTARA PENDUDUK, ANAK-ANAK DAN MEMANFAATKAN TANAH MEREKA UNTUK PERTANIAN PERKOTAAN (URBAN FARMING). JEMBATAN TETANGGA JUGA MERUPAKAN SEBUAH PENGHUBUNG ANTARA DUA DESA.

# Zoom2\_ LIVING IN THE HILLSIDE CLOSE TO THE RIVER



THIS AREA OFFERS A NEW WAY OF LIVING IN PERFECT AD EQUATION BETWEEN THE HILLSIDE AND THE RIVER WALK. SEVERAL TYPES OF HABITATS ARE IMPLEMENTED, ON ONE TO TWO LEVELS MAXIMUM BUT FACING THE RIVER. THE PRESENCE OF PRIVATE ENTRIES, BALCONIES AND TERRACES PRESERVE THE PRIVACY OF THE INHABITANTS.

PADA AREA INI, AKAN TERDAPAT HARMONISASI ANTAR KAWASAN DEKAT DENGAN BUKIT/ PERENG DENGAN KAWASAN TEPIAN SUNGAI. BERBAGAI MACAM LINGKUNGAN HIDUP AKAN DI IMPLEMENTASIKAN DENGAN BANGUNAN BERLANTAI DUA MENGHADAP SUNGAI. AKAN DIGUNAKAN JALUR MASUK RUMAH YANG PRIVAT, BALKONI DAN TERAS UNTUK MENJAGA PRIVATISASI PENDUDUK SETEMPAT.



## TEAM SEMERU

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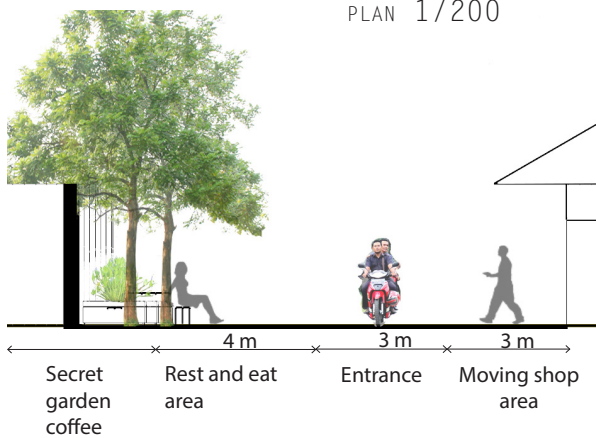




# Zoom3\_ A NEW ARTY AND COMMERCIAL STREET FOR THE NEIGHBORHOOD



PLAN 1/200



SECTION 1/200



ATMOSPHERE SKETCH

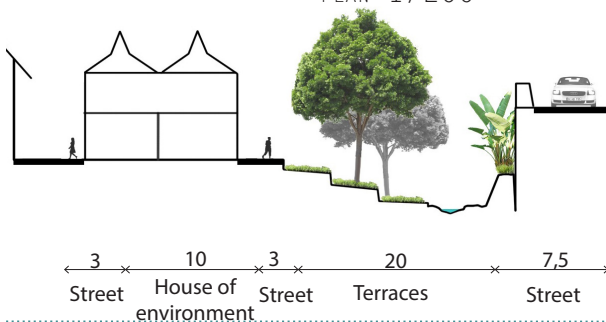
THE IDEA IS TO BUILD A NEW ENTRANCE TO THE VILLAGE. THIS ENTRANCE AIMS TO VALORIZE THE COMMERCIAL AND ART ACTIVITIES TO DEVELOP THE ECONOMIC ATTRACTIVENESS. THE WHOLE OF EXISTING HABITAT IS DEMOLISHED FOR ENLARGED TO DEVELOP A NEW STREET AND OPEN THE COMMERCIAL MARKET. THUS, THE COMMERCIAL MARKET AND THE WALL OF THE SECRET GARDEN WILL BECOME THE SYMBOL OF THE VILLAGE'S RENEWAL.

PADA KAMPUNG GAMPINGAN, AKAN TERDAPAT JALAN MASUK BARU. PENINGKATAN AKSESIBILITAS INI DAPAT MENINGKATKAN POTENSI KOMERSIAL DAN KESENIAN SEHINGGA DAPAT MENINGKATKAN PELUANG EKONOMI. KAWASAN PERUMAHAN EKSTINGSIKAN AKAN DI RELOKASI, SEHINGGA DAPAT DIBANGUN JALAN BARU PADA AREA TEPIAN SUNGAI DAN MEMBUKA AKSES KE PASAR. SEHINGGA, PASAR DAN DINDING KAFE SECRET GARDEN AKAN MENJADI SIMBOL DARI PEMBARUAN KAWASAN.

## Zoom4\_ UNDER THE BRIDGE



PLAN 1/200



ATMOSPHERE SKETCH

IN THIS AREA, A HOUSE OF ENVIRONMENT WILL BE BUILT AS THE COMMUNITY PLACE FOR THE INHABITANTS. THIS PLACE INCLUDES A COFFEE SHOP PLACE, ART GALLERY FOR LOCAL ART COMMUNITY, A PLACE TO WATCH CINEMA TOGETHER AND A LITTLE LIBRARY. THE BUILDING INCLUDES ALSO A STAIR FOR FISHING AND A PARK OVERHANGING THE RIVER. THE DECORATION OF THE BUILDING WILL SHOW SOME LOCAL ARTS, AS KITES, CRAFTS, MURALS, ETC.

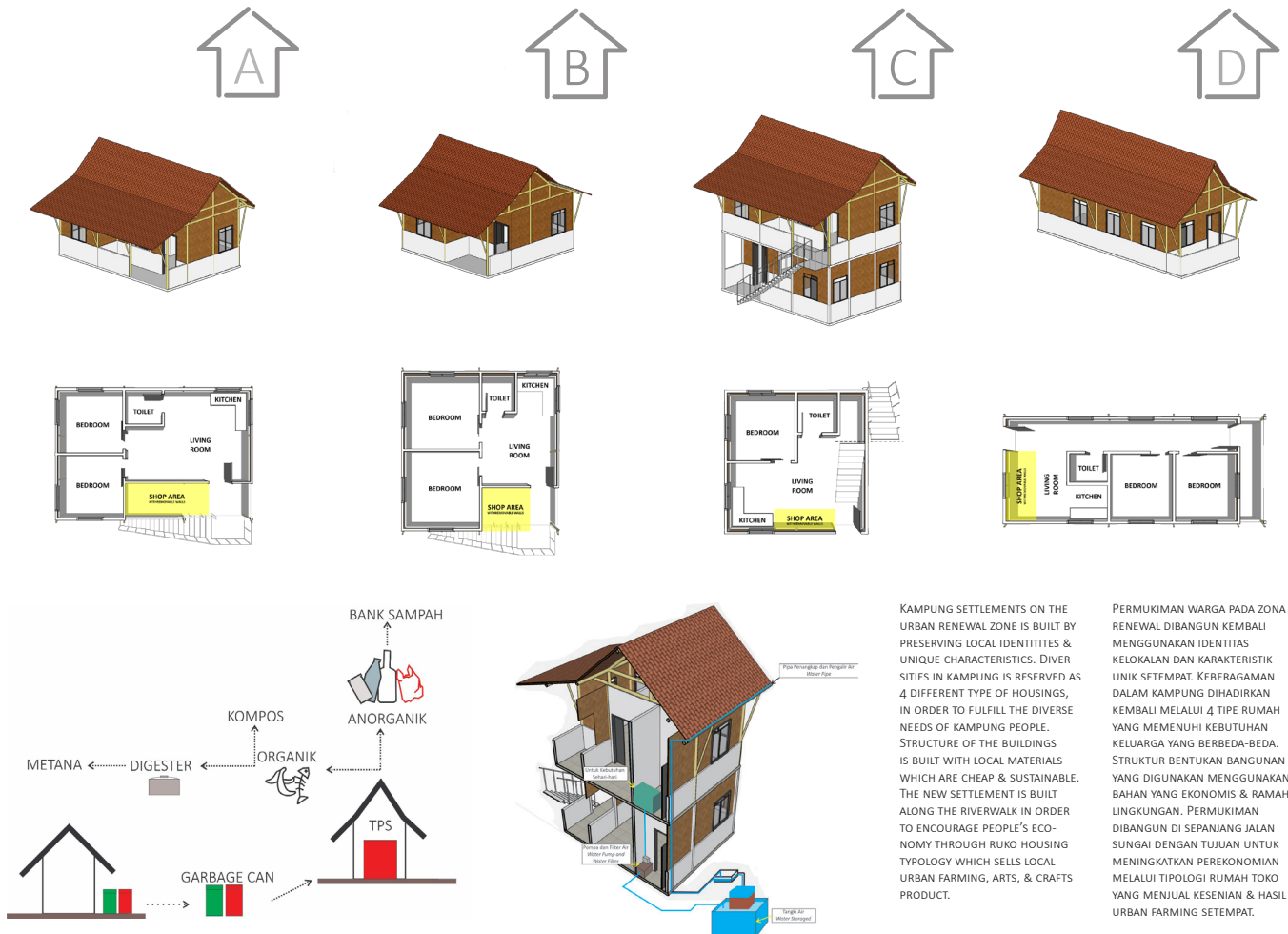
PADA AREA INI, HOUSE OF ENVIRONMENT (BALAI WARGA) AKAN DIBANGUN SEBAGAI TEMPAT BERKUMPUL WARGA. TEMPAT INI JUGA MERUPAKAN TOKO/ WARUNG KOPI, GALERI UNTUK HASIL KESENIAN WARGA, TEMPAT MENONTON BERSAMA DAN PERPUSTAKAAN. BANGUNAN INI MEMILIKI TANGGA DI DEKAT SUNGAI UNTUK KEGIATAN MEMANCING. BANGUNAN AKAN DI DEKORASI DENGAN MENUNJUKKAN KESENIAN LOCAL SEPERTI LAYANGAN, KERAJINAN TANGAN MURAL DAN LAIN SEBAGAINYA.

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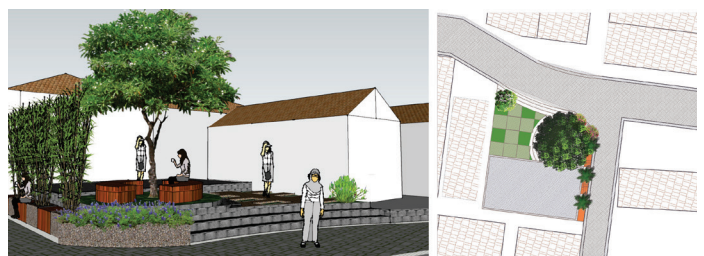
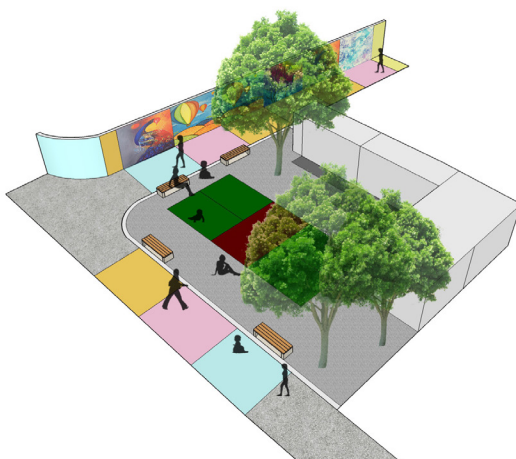
## NEW HOUSING



KAMPUNG SETTLEMENTS ON THE URBAN RENEWAL ZONE IS BUILT BY PRESERVING LOCAL IDENTITIES & UNIQUE CHARACTERISTICS. DIVERSITIES IN KAMPUNG IS RESERVED AS 4 DIFFERENT TYPE OF HOUSINGS, IN ORDER TO FULFILL THE DIVERSE NEEDS OF KAMPUNG PEOPLE. STRUCTURE OF THE BUILDINGS IS BUILT WITH LOCAL MATERIALS WHICH ARE CHEAP & SUSTAINABLE. THE NEW SETTLEMENT IS BUILT ALONG THE RIVERWALK IN ORDER TO ENCOURAGE PEOPLE'S ECONOMY THROUGH RUKO HOUSING TYPOLOGY WHICH SELLS LOCAL URBAN FARMING, ARTS, & CRAFTS PRODUCT.

PERMUKIMAN WARGA PADA ZONA RENEWAL DIBANGUN KEMBALI MENGGUNAKAN IDENTITAS KELOKALAN DAN KARAKTERISTIK UNIK SETEMPAT. KEBERAGAMAN DALAM KAMPUNG DIHADIRKAN KEMBALI MELALUI 4 TIPE RUMAH YANG MEMENUHI KEBUTUHAN KELUARGA YANG BERBEDA-BEDA. STRUKTUR BENTUKAN BANGUNAN YANG DIGUNAKAN MENGGUNAKAN BAHAN YANG EKONOMIS & RAMAH LINGKUNGAN. PERMUKIMAN DIBANGUN DI SEPANJANG JALAN SUNGAI DENGAN TUJUAN UNTUK MENINGKATKAN PEREKONOMIAN MELALUI TIPOLOGI RUMAH TOKO YANG MENJUAL KESENIAN & HASIL URBAN FARMING SETEMPAT.

## REFURBISHED HOUSING/PUBLIC SPACES



PUBLIC SPACE WILL BE DESIGN TO MORE INTERESTING AND FUNCTIONAL TO BE ONE OF THE MAIN POINT AND IT CAN BE USE OPTIMAL BY THE INHABITANTS AND ALSO THE PEOPLE WHO COME TO THIS KAMPUNG. THE PUBLIC SPACES WAS INTEGRATE ONE BY ONE BY THE NEW STREET AND THE MAIN STREET.

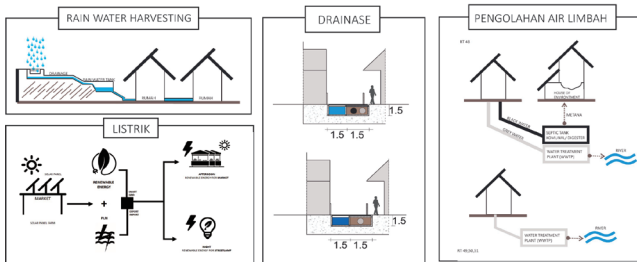
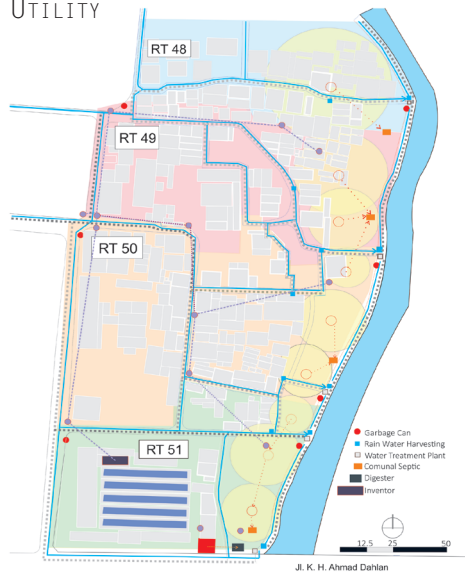
RUANG TERBUKA PUBLIK DIRANCANG MENJADI LEBIH MENARIK DAN FUNGSIONAL UNTUK MENJADI SALAH TITIK YANG DAPAT DIGUNAKAN SECARA OPTIMAL OLEH MASYARAKAT DAN ORANG-ORANG YANG DATANG KE KAMPUNG INI. RUANG TERBUKA PUBLIK JUGA SALING TERINTEGRASI DENGAN JALAN LINGKUNGAN DAN JALAN UTAMA PADA KAMPUNG.

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## UTILITY



## TECHNICAL ASPECTS

## VEGETATIONS



Flamboyant/ Royal poinciana



Flamboyant/ Royal poinciana



Jacaranda/ Jacaranda filicifolia



Ketapang kencana/ Terminalia mantaly



Terong/ Eggplant



Tomat/ Tomatoes



Cabe/ Chili

## BEFORE / AFTER



EXISTING



PROJECT

## TEAM SEMERU

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RENDRA KUSUMA BERLIANTO - VICTOR GAUTRIN- MARGAUX SEIFERTLOUP CALOSCI- HARYO WINARSO









## TEAM SEMERU

INDONESIA

15-30 APRIL 2018

### SUPERVISORS

Haryo WINARSO (ITB) / Loup M. CALOSCI (ENSAPB) / Donny KOERNIAWAN (IDB)

### STUDENTS

Rendra KUSUMA (UNS) / Isti NUGROTO (UGM) / Tiara R. DEBBY (UNDIP) /  
Marisa SUGANGGA (ITB) / Baptiste KIEFFER (ENSAS) / Méлина VILLEFER (INSA) /  
Victor GAUTRIN (ENSAPB) / Margaux SIEFERT (ENSAS)