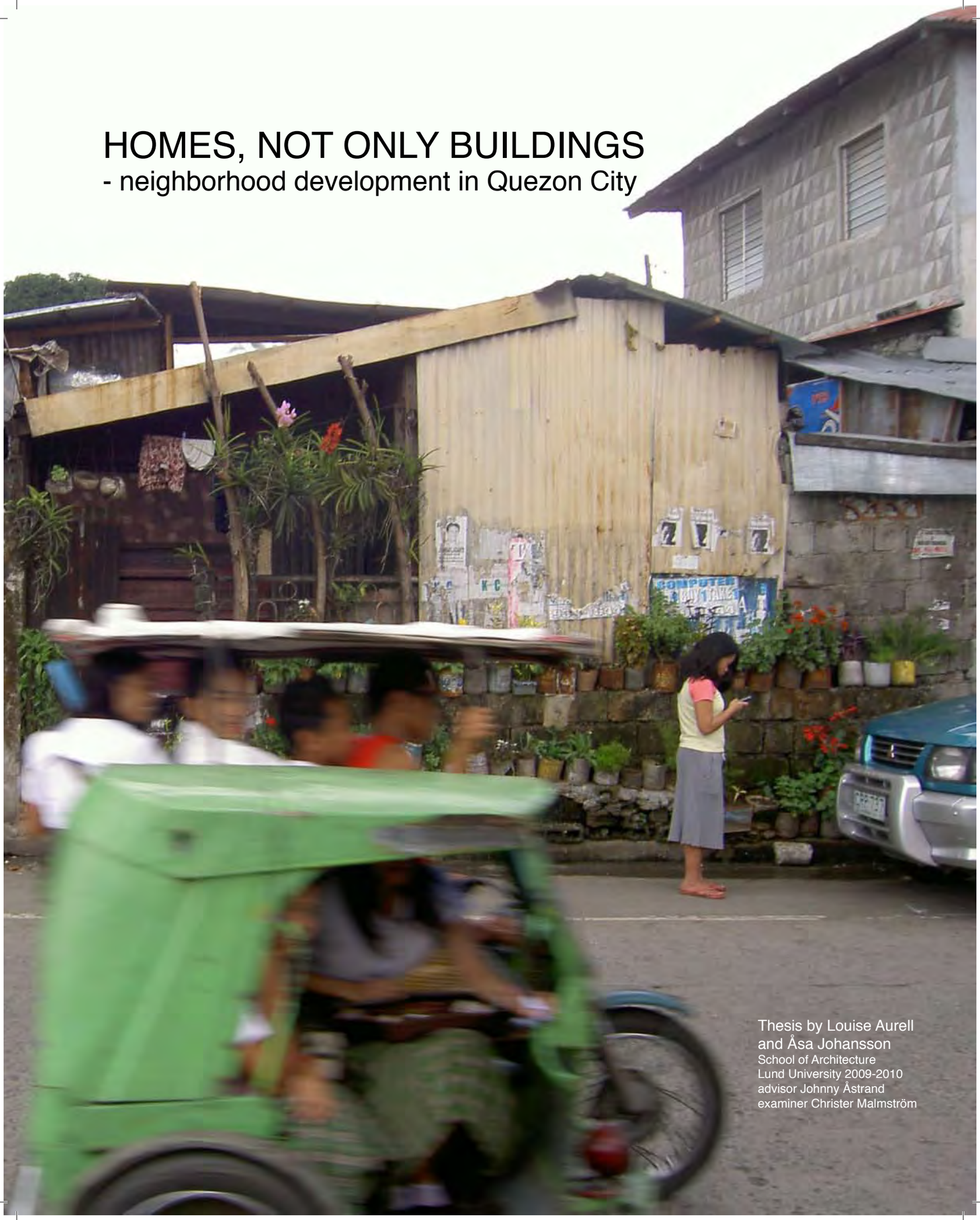
HOMES, NOT ONLY BUILDINGS
- neighborhood development in Quezon City



Thesis by Louise Aurell
and Åsa Johansson
School of Architecture
Lund University 2009-2010
advisor Johnny Åstrand
examiner Christer Malmström

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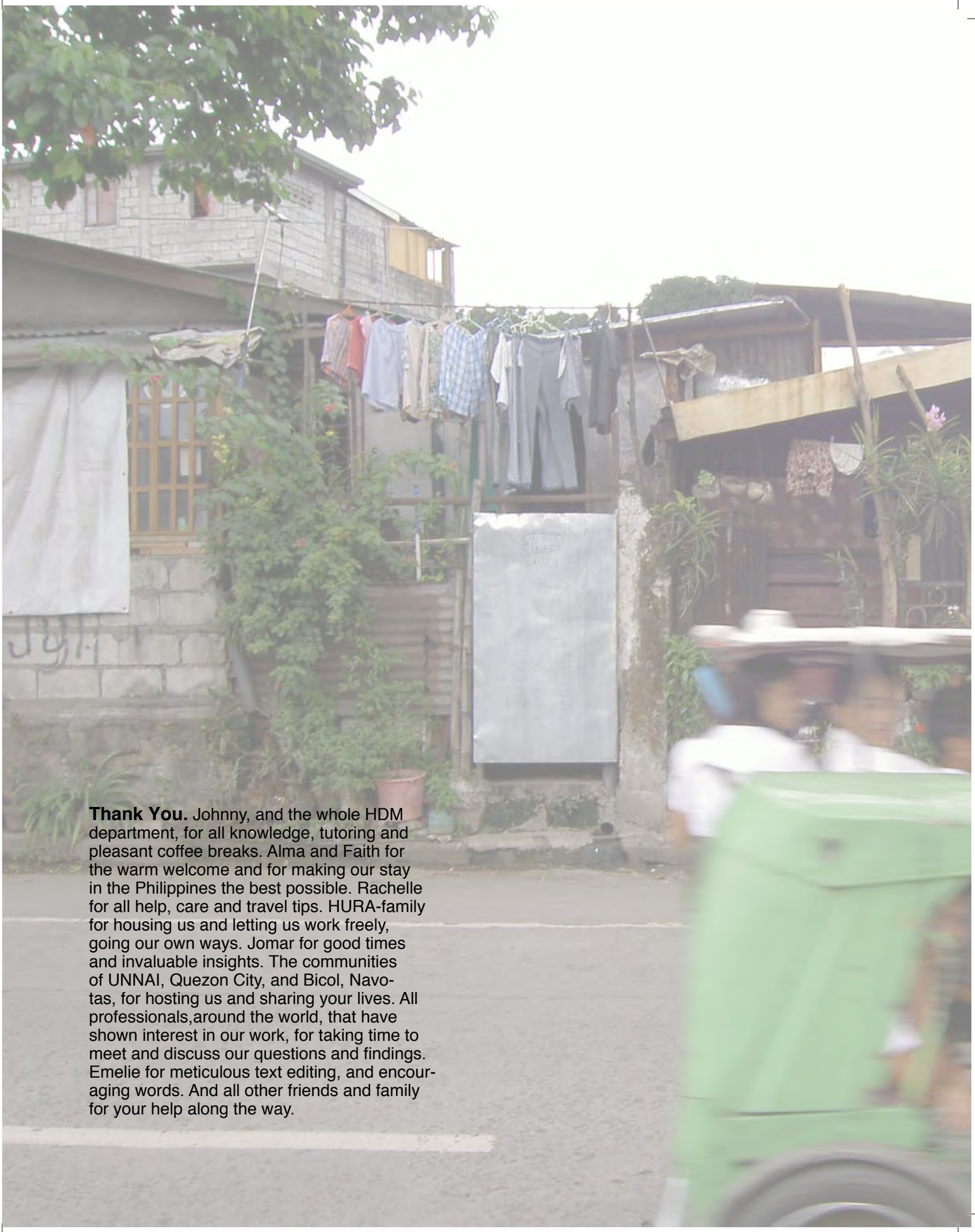
- neighborhood development in Quezon City

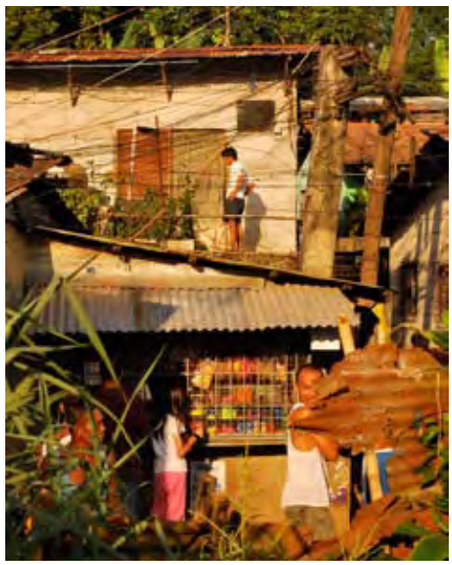
Lund University, School of Architecture 2009-2010

Louise Aurell
louiseaurell@gmail.com

Åsa Johansson
asa.ark@gmail.com



Thank You. Johnny, and the whole HDM department, for all knowledge, tutoring and pleasant coffee breaks. Alma and Faith for the warm welcome and for making our stay in the Philippines the best possible. Rachelle for all help, care and travel tips. HURA-family for housing us and letting us work freely, going our own ways. Jomar for good times and invaluable insights. The communities of UNNAI, Quezon City, and Bicol, Navotas, for hosting us and sharing your lives. All professionals,around the world, that have shown interest in our work, for taking time to meet and discuss our questions and findings. Emelie for meticulous text editing, and encouraging words. And all other friends and family for your help along the way.

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INTRODUCING THE PROJECT

GENERAL BACKGROUND

urbanization

usability and culture

preserving traditions

PROJECT BACKGROUND

the Philippines

Quezon City

DESIGN PROPOSAL

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INTRODUCING THE PROJECT

This chapter is shortly introducing a project about cost effective housing. It is a quick guide through the problem setting, the authors approach and objectives. Including a brief description of the chronological order of the work and finally a definition of key terms that will be of importance through the work.

introduction

This is an architecture thesis on housing in Quezon City, the Philippines. It is a design proposal for an urban housing project, a medium rise, cost effective building, and a discussion about the context and issues influencing the housing situation as it is today.

The need for housing around the world is enormous. We Swedes often complain about rising prices of city centre apartments, about the diminishing market of rental apartments and young adults being excluded from the housing market and forced to stay with their parents. But if we raise our heads a little bit, we will quickly realize how fortunate we are. Globally, the need for shelter is urgent. It is not really an issue of housing shortage, most people do have somewhere to live (Åstrand 2009). The issue is rather how people live. 1 billion people live in urban slums around the world (Tibaijuka, 2008:3), in communities where the access of basic needs such as drinking water, electricity and the possibility to close your door can be limited. A majority of the billion people live in what is mostly referred to as developing countries but what difference do that make? Everyone's right to adequate housing is stated in the Universal Declaration of Human Rights (UN 1948: article 25), and should be an issue of importance to everyone. But, what do "adequate housing" mean? At the UN conference on Human Settlements (Habitat II) in Istanbul 1996 The Habitat Agenda was agreed upon. It states:

> *"Adequate shelter means more than a roof over one's head. It also means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water-supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost."*
>
> The Habitat Agenda 1996:22

Article 25, *1. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control. 2. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.*
Universal declaration of Human Rights, UN 1948

When reading this list of requirements all seems reasonable and when living in the Western part of the world it might seem impossible that any of them should be difficult to achieve. But as an example, how much is adequate space? And how do one create enough space in cities where there is no space left? These seems like stupid questions but it is a reality in cities everywhere. It is basically the same problem we experience with rising real estate prices here, but in cities with rapid urbanization, with around 15 million inhabitants (as Metro Manila) and much lower income levels, the issue becomes much more striking and the effects are worse. So what can be done? Or maybe more importantly, how can this issue be approached?

These are questions we, two Swedish architecture students, find important to discuss globally. It is not only a responsibility for each country to solve on their own, but it is neither a problem with one global, "magical" solution. Our interest in global issues have been growing the last year after being introduced to housing issues in developing countries through a university course in Lund. The wish for more knowledge and experience made us seek for possibilities to continue the work carried out in the course. The Philippines are facing many challenges in the effort of improving the housing conditions in the urban areas, a problem seen in many cities. With the background we had from a previous visit it was a natural choice to continue our work in Metro Manila.

The Housing and Urban Renewal Authority (HURA), a Quezon City governmentally owned housing corporation, invited us to Quezon City to assist in improving their housing projects. HURA's objective is to provide the low-income groups of Quezon City "adequate and affordable housing" (CPDO 2003:26). Quezon City, one of 18 cities in the metropolitan area of Manila, has just below 3 million inhabitants at about 16 000 hectares (QC 2009:1, ADB 2004:54). The city is, along with the whole Metro Manila area, running out of space.

Our aim has been to look at the idea of social sustainability within social housing projects. HURA presented us with an ongoing project to be built, two medium rise buildings on a site in Barangay Escopa III (Barangay is a municipal division in Philippine cities). Drawings for standardized buildings previously used by HURA at the neighboring site were prepared and re-sized for this specific site. There was still room for improvement of the existing proposal before construction and we were asked to consider alternative solutions still meeting the requirements from HURA.

The housing project has been a way to test theories and conclusions drawn from the analysis of the current situation, to enhance the existing qualities and reduce the lack of others. We have developed a site specific design were qualities of the proposed buildings from HURA are combined with resources on the site. Our focus have been on the use of space, how the layering of private and public spaces contributes to the community within the building. But the project is not just about the building proposal. The initial aim was to come up with design guidelines. But the project is neither a manual or set of rules. Most importantly it is a conclusion of the work carried out. The result is our gathered knowledge and general learnings, and hopefully our work will contribute to a constructive debate on global housing issues as well as local needs in Quezon City. The project is an argument for a site specific approach, but it is surely not the only way to develop this site.

The report is divided into a number of chapters. Main topics are the global issues of urbanization and poverty, distribution of space and culture, vernacular architecture and new technologies. The discussions are complemented by general information, facts and figures. All supporting the development of the design proposal and leading up to the final part, critically reviewing the work carried out.

"Housing is a process, dwelling units evolve with the user"

Navarro Åstrand 2009

ISSUE	Globaly there is a shortage of adequate housing options.
RESPONS	This project is one way to respond to that challange through a design proposal and a discussion about the context and issues influencing the housing situation in developing countries as it is today.
FOCUS	The focus of the design has been on the use of space and how the layering of private and public spaces contributes to the community within the building.
OBJECTIVE	Present an affordable solution that meet the cultural needs, the climatical requirements and that supports the social life.
METHOD	This has been a collaboration together with a Quezon City based housing corporation.
CONCLUSION	Hopefuly this work will contribute to a constructive debate regarding ‘adequate housing’ and related issues.

"…the lesson comes to me: that it was only possible to deal with these issues because of the architect's ability (necessity!) to move from the macro to the micro, back and forth, every day – in a synergy that informs the whole process. As Jack Robertson has so brilliantly pointed out, you can't design a spare-part without understanding what the machine should look like, and you can't conceptualize the overall machine if you can't design a spare part."

Correa 2000:9

project approach

The goal has been to make a design proposal for one of HURA's housing projects, to try to understand the situation in which HURA works and come up with a sustainable product that meets the needs in Quezon City and the requirements from HURA.

This project has been carried out during one semester at the School of Architecture at Lund University, from September 2009 until February 2010. Seven weeks, October 13th to November 23rd, were spent on field studies in Quezon City, the Philippines.

Along the way we have thought about issues such as urbanization, vernacular architecture and climate considerations. Discussing these issues with people crossing our path have given us a lot of input to the work. Architects, politicians and professors, friends and friends of friends in the Philippines, architects, social scientists, economists, friends and family in Sweden have provided valuable insights. Housing is an interdisciplinary science and even if we are not able to discuss it in any other way than as architects, it is important to understand the complexity of the issue, to put everything in a wider perspective.

The process has not been linear. The work has been divided into three phases; preparations (before travelling), field studies and analysis (in Quezon City) and further development and conclusions (back in Sweden). During each phase different themes and issues connected to the project have come up, but many discussions have continued through the whole work or appeared in different contexts at different times. Even if the discussions have been fluent through the whole process, the work and methods of the work has differed rather distinctly between the phases.

preparations Initially we did not know HURA's interest in our 'sustainability approach'. They had communicated that there was a need for "a holistic approach to architecture", but nothing more. This made it possible for us to use the month of preparations for the field studies for a discussion between our selves. We defined our approach, discussed terms such as *sustainability* and *the home*.

field studies and analysis in QC When arriving in the Philippines the first objective was to understand the context in which HURA works, their objectives and restrictions. Through discussions and interviews with the HURA staff and at HURA's regular meetings we followed the processes surrounding the project and got insight in general issues of social housing in Quezon City and specific issues for this project.

To understand the context of the site we have observed the area through several visits. Residents and Barangay officials in ESCOPA III invited and guided us through the area, we were invited into homes both in earlier HURA projects and to neighbors of the site.

Through the stay in Metro Manila interviews with both international and local "experts" helped us to broaden the perspectives, to get an understanding of all factors shaping the development.

We got an opportunity to take part in a community participation workshop, which gave us further insight into the life of the metropolis.

design and conclusion The final part of the project has been dominated by the design work. Screening and presenting the information gathered has along the way helped us forward. Two public presentations and discussions of the project (at the Talk Climate Exhibition at Form/Design in Malmö and in the course Urban Shelter at Lund University) has also developed the project through defining issues, concepts and ideas further.

defining ideas and concepts

Key words within this project is sustainability and quality. Meanings have shifted over the time of our work, but it always comes down to the quality of living and the possibility for sustaining these qualities. When discussing sustainability we have talked about 'hard' and 'soft' qualities, the quality of outdoor spaces and if it is possible to create social sustainability through design. We have also asked ourselves if it is possible to consider these issues within small budgets? Is it vanity to care for quality when the need for housing is this huge? No, it is not.

It is important to create a neighborhood rather than a number of houses in order to achieve a sustainable city and 'social growth'. Long term planning and investments do pay off. Even if the initial cost is higher a long term sustainable approach will give future profits also economically.

To be able to continue the discussion, definitions of the main concepts are needed, what lies in the key word sustainable?

sustainability What is sustainability? Today everyone talks about it, but many still see it just as a 'green movement' fighting for vegetation and trees. Others may say it is the most over used word in modern time. Maybe the term sustainability has been so worn out that it should not be used at all? But it is a recognized concept that still holds some rhetorical strength. However there is a need to discuss and define the term so it is not used only as a rhetoric tool to sell an idea. When talking about development and growth, it is important to include sustainability aspects, but not just as an empty phrase.

The most common definition of sustainability is found in the UN report Our Common Future from 1987:

> *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs…"*
>
> Brundtland 1987

Even before the above definition was formulated, the concept was discussed at the UN Conference on the Human Environment in 1972. Then it was referred to as the:

> *"possibilities to achieve economic growth and industrialization without environmental damage"*
>
> Adams 2006:1

When discussing sustainability nowadays, social-, economic- or environmental- is often added to express more clearly what 'sort' of sustainability that is being discussed. Probably it is needed because of the vague definition of the term. Adams argues that *"the concept is holistic, attractive, elastic but imprecise. (…) In implying everything sustainable development arguably ends up meaning nothing"*. But to achieve sustainability the interaction between these three (social-, economic- and environmental-) is necessary, interaction is the core of sustainable development. (Adams 2006:2ff)

The Philippine architect Rosario Encarnacion Tan means that sustainable architecture is: *"a dynamic movement that makes sure that the architecture is an organism that is renewable"* (Encarnacion Tan 2009). She argues that sustainability is about the ability and knowledge to give back, unfortunately this rarely falls in line with the interests of profit driven developers. But it is also about knowledge and capacity, to blame it completely at 'greedy' corporations is not fair. Many municipalities do not have the capacity to develop 'cities', sustainable systems that works as one whole.

We have seen sustainability as something that leads to positive development within different sectors, without compromising any factor (in accordance to Brundtland). It is the collective concept of a long-term process-driven

qualities for sustainability	'hard'	'soft'	
adequate space:			
privacy		x	
usability/functionality		x	
community		x	
life-styles and culture		x	
accessibility:			
connection between indoor and outdoor		x	
infrastructure	x		
adequate security:			
affordability	x		
secure tenure	x		
structural stability:			
planning procedures	x		
building materials	x		
water, sanitation and waste management	x		
possibilities for expansion	x		
ventilation	x		
durability	x		

'soft´= abstract & social qualities
'hard' = concrete & material qualities

When there is room
for both, sustainability
can be reached.

Architect Joven Ignacio,
private practitioner and cofounder of Green Architects Advocacy

"When it comes to sustainability we are at a point where people start to be aware, but green architecture is not enough. Our systems need to work for, and support, the people. Communities needs to be made aware of the responsibilities we all face, both local governments and residents. The physical structures are not strong enough to hold them selves. No technical solution will work without the support of a well working social structure..."

Interview in Quezon City, 2009 11 13

development. And as Adams notes, the sustainable society is the sum of social-, economical- and environmental sustainability.

However, the concrete meaning is depending on the scale observed. Sustainability in the global context is an extremely complex issue, while working with sustainability in an individual scale does not have to be that difficult. If local systems are sustainable, they would much easier fall into a larger sustainable system.

social sustainability After stating the importance of an overall sustainable approach we still linger with the social sustainability. The issues of safe neighborhoods, livelihood generation and comfort are important, and are issues that are forgotten in many social housing projects. Social housing have stigmatized to a degree where people are marked by their address. Zoning and attitudes segregate residents rather than include everyone in the city. 'Social' has become a negative attribute instead of an assurance of good, socially sustainable neighborhoods. The bad attitudes to social housing needs to be changed, social housing is homes and requirements should be considered the same as for any other home. Even if finances and available space limit the possibilities, 'soft' qualities should be just as important as anywhere else. The feeling of safety and comfort is important for everyone.

Social sustainability can be a generator for further sustainability concerns. Adams means that wellbeing and security are key elements for sustainability. That quality and diversity of the environment as well as equity between people are issues in need of being addressed in the sustainability debate. What he calls "quality of life" is of equal importance as political and economical factors. (2006:12ff) The feeling of security and belonging, the attachment to the home is a prerequisite for commitment to maintain and care for the area. Adding knowledge about

environmental issues and good solutions will create a sustainable neighborhood. Or as Viveca Berntsson formulates it, *"the individual commitment is a prerequisite for beautiful and sustainable cities and societies in which we want to live"* (Troedson 1999:27, Authors translation).

the quality home In Quezon City, the vision is to create a 'Quality Community' (CPDO 2003:15). Sounds great, but what is that? What qualifies a 'quality community'? Of course there are many aspects of a well functioning community, all of equal importance. It is about politics, economy, culture, environment and social systems. And what one person defines as qualitative might be seen as the direct opposite by someone else. We believe that a qualitative community must include qualitative and sustainable housing options for all. Mario Rodriquez and Johnny Åstrand argues that improved living conditions often result in better physical health which in turn leads to better opportunities for work and higher incomes (Rodriguez and Åstrand 1996:5).

How the home is shaped, what defines its boundaries and why people give the home the attributes they do is questions we have discussed. Improved living conditions are, again, a subjective definition with a lot of room for interpretation. It is, and should be, impossible to define one single description or a universal solution to what a good home is, there are as many definitions of a 'home' as there are homes in the world. Agreeable though, is that a home should be a place to feel comfortable, safe and satisfied, a private zone where we can fulfill our daily needs and be together with our family and friends. Which qualities that makes us feel comfortable and secure differs dependent on site, climate, economy, culture, personality etc.

With The Habitat Agenda, the world has agreed upon the basic requirements, but how everyone prioritize them will differ from one person to another due to their unique situation and individual needs. A number of different qualities, including structural and material issues as well as social aspects, needs to be combined together to create this 'quality community'.

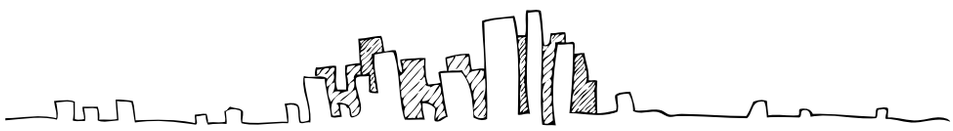
Even if there is a big difference in how we prioritize, is there a way to create quality for all?

About this, and along with general concepts such as shelter, homes, communities and cities, we had discussions with HURA, their beneficiaries, architects, students and others in Quezon City.

Quezon City defines a Quality Community as following:

- dynamic, with efficient road transport and communications.
- healthy, through adequate health and medical services and healthy living conditions
- safe and secure, peaceful and orderly, and with affordable housing
- productive, with commerce and industry, livelihood and employment opportunities, and a thriving tourism
- nurturing and caring, through its education and cultural heritage, and social welfare and protection
- environment friendly, with good solid waste management, parks and open spaces and protection of rivers
- well-governed, through an effective development administration and comprehensive barangay development

(ADB 2004:57)



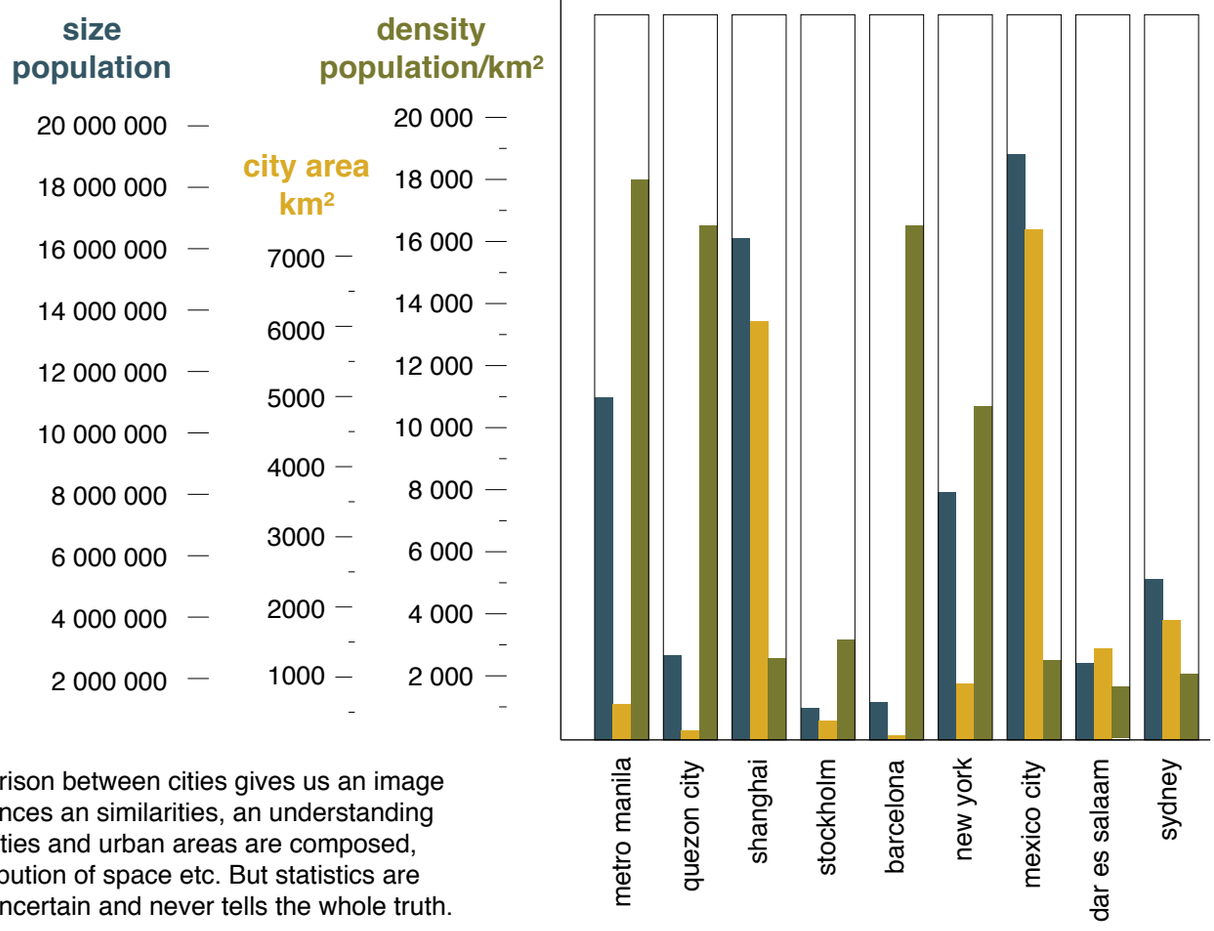
GENERAL BACKGROUND
urbanization

Rapid urbanization is a fact in most developing countries, to work in this context one needs to understand both larger and smaller systems at work. Everything that effects the living condition of people in question. This chapter is giving a background to urbanization. Discussing causes and approaches to the challenge of rapidly growing cities as well as briefly describing the specific situation in the Philippines.

URBANITY

	(city based calculations)			(nation based calculations)				
	size population	city area km²	density people/km²	urbanised population %	growth rate of urban population %	GNI/capita USD	energy use oil/capita kg	water withdrawls /capita litres
METRO MANILA	11 550 000	635	18 200	64	4	1 620	538	376
QUEZON CITY	2 700 000	161	16 600	64	4	1 620	538	376
SHANGHAI	16 400 000	6 200	2 600	42	3,6	2 360	1 316	495
STOCKHOLM	1 250 000	375	3 300	84	0,5	46 060	5 780	333
BARCELONA	1 650 000	100	16 500	77	0,9	29 450	3 339	875
NEW YORK	8 300 000	785	10 600	81	1,6	46 040	7 885	1 687
MEXICO CITY	19 200 000	7 800	2 500	77	1,8	8 340	1 701	782
DAR ES SALAAM	2 300 000	1 590	1 500	25	4,6	400	532	149
SYDNEY	3 600 000	1 787	2 000	89	1,5	35 960	5 897	1 255

Statistics: Unicef, World Resources Institute, www.citypopulation.de



A comparison between cities gives us an image of differences an similarities, an understanding of how cities and urban areas are composed, the distribution of space etc. But statistics are always uncertain and never tells the whole truth.

what is urbanization?

Urbanization is the common definition of an increase of the urban population, but cities have two ways of growth – migration and natural population increase.

Tannerfeldt and Ljung (2006:20ff) writes that urbanization and urban growth are two separate concepts. Urbanization is the transition process from a rural to an urban society. With urban growth they mean the increase of the native urban population. Urban growth is actually the main contributor to the increasing population in cities. The combined effect is very rapid urban growth that might result in overcrowded non-sustainable cities. Recently the world's urban population became larger than the rural and the pressure on the city structures and typologies are getting harder.

The premises for development today are very different than during the industrialization of the now developed world. When European countries became over crowded there was 'available land' in other parts of the world, a land resource to spread the population over. That possibility does not exist any more. Instead of emigration there has been a regional flow of people, a rapid urbanization. Correa can see one gain for previously colonized countries though. Referring to India he states that *"the skills developed by the colonial powers for their own selfish purposes have turned out to be exactly the skills we need to bring about our own development, example railway implementation"*. (Correa 2000:105)

There are many reasons why people transfer from rural areas to cities, but it is rare that people move to cities to find better housing alternatives (Correa 2000:110). The main reason for moving to urban areas is the hope of better jobs, education and health care opportunities. Some people are *"engulfed by urbanization without migrating"* according to journalist Jeremy Seabrook (Davis 2007:9). Seabrook describes an example from Malaysia where the local fisherman's possibilities to keep working were cut off by new highways, waste and deforestation due to globalization. Another example of 'forced' migration are when safety nets for local farmers disappear and they have to compete with industrial produced products and the global market prices, argued by Deborah Bryceson (Davis 2007:15). A trend seen even in Sweden. One bad harvest season or unexpected disease for the animals can lead to no income and the only situation is to move where you can find another livelihood.

Unfortunately no attractive urban land is cheap so if cities can not provide affordable housing close to basic services, jobs and transportation, migrating people will locate themselves informally close to where these can be found (Correa 2000:110). This results, as seen in many cities, in people occupying dangerous zones that no one use such as dump-sites, riverbanks and along railways (Manaugh 2009:104). The consequences of moving from the rural area to the urban areas often include bad living situations and rarely any social network. Hence, the possibility to improve your situation is very limited, contrary to the anticipated better living conditions and new possibilities.

urban poverty The main issue when dealing with urban poverty is the degradation and dehumanization of the urban poor population. Housing areas for low income households are in many cases badly planned and do not meet the needs of the people. (Correa 2000:106) In some aspects the informal settlements works better as an urban structure than newly planned neighborhoods. Houses are built by available materials and they grow organically with the terrain or availability of land. In the 2009 exhibit "Green Architecture for the Future" Frederic Druot Architecture exhibits the Favela la Rochina in Rio de Janerio. The project is based on the idea that *"in its basic concept the favela is sustainable, while the health and energy conditions are often poor"*. (Juul Holm and Kjeldsen 2009:38)

In 2006, 33% of the population in the Philippines lived below the poverty threshold of 15 000 PHP per capita. But in a 2009 survey, by "The Social Weather Stations", 50% of the families considered themselves poor, which is about 9,3 million families. (ADB 2009:15-17) This indicates that the official poverty threshold do not correspond to what people consider it to be. But it is also an indication that income alone does not define poverty. Many families that reach above the poverty threshold in terms of income still live in informal settlements with poor housing and poor access to basic services. (ADB 2004:12ff)
The urban poor households are estimated to be 1.22 million in the country but the estimates are uncertain because of the large number of urban dwellers without 'proper' address. Informal settlers often reject surveys, fearing that demolitions and resettlement will follow.

Most of the urban poor population live in the metropolitan area of Manila. And out of the population in Metro Manila, 35% live in informal settlements (ADB 2009:13ff). In an interview Sec. Enriquez, general manager of HURA, tells that the number of informal settlers in Quezon City is about 50% of the population (Enriquez 2009 10 30). This means almost 1,5 million people lack adequate housing in Quezon City alone.
The National Housing Authority (NHA), whose objective is to provide housing for the poorest 30% of the population, manage to produce about 125 000 housing units per year nation wide. The backlog of homes is still huge and the rising population will continue to demand more housing developments. To architect Alma Valenciano at NHA it is clear that NHA alone not will be able to cover the housing needs in the Philippines. The market requires more actors both from the governmental and the private sector. (Interview 2009 11 17)

Architect Alma Valenciano,
Deputy Area Management Officer NHA

"Design should be an answer to the preferences of the people, many buildings for the urban poor are not answering to that, it is only space. At NHA we try to build cities including commercial and industrial areas providing work opportunities, not just residential developments. Some projects are more successful than others, but when relocated some people always leave the sites anyway."

Interview at the NHA office, Quezon City, 2009 11 17

Architect Florian Steinberg,
Land use specialist Asian Development Bank

"Community driven development and pro-poor land management are the only long-term solutions. We wont support any 'out of the city' resettlement programs, moving people outside the city boundary, further away from work and municipal services, will not solve the housing situation. Unfortunately the disaster prevention debate have resulted in a hunt for resettlement sites out of the cities instead of land studies within the urban area. There is land suitable for development in Metro Manila but land reforms must take place to be able to use it."

Interview at ADB office, Pasig City 2009 11 13

actions to take

Shelter development is a wide concept that is dealt with differently around the world. The United Nations member countries have together developed the Habitat Agenda and set up goals for the future. Can these goals be met and will governments apply them? Or will everyone have to take an individual responsibility for their societies and growing population?

Actions take place on different levels, ranging from the international global arena to the smallest rural societies. During the latest years, architects, city planners and engineers have tried to find a new 'miracle' way to solve the rapid urban growth and the growth of mega-cities. New technologies, materials and universal prefabricated options has been invented but this only makes the buildings more expensive and forces people to come up with their own solutions. Dated planning principles is another problem. Correa argues that *"the problem of housing the vast majority of our urban population is not one of building technology – it is primarily a matter of optimizing densities, of re-adjusting land-use allocations."* (Correa 2000:107) Architect Florian Steinberg at the Asian Development Bank is also convinced that land-use reforms is the most important question when it comes to future developments in Metro Manila (interview 2009 11 12). Urban theorist Mike Davis argues that a prerequisite for a change is *"cheap, squattable land and the existence of entrepreneurial opportunities in the informal sector"* (Manaugh 2009:104).

As stated earlier, housing is only one part of a complex situation.

better housing, not necessarily new buildings As mentioned in the introduction, housing shortage is often not the main challenge, it is a question of quality (Åstrand 2009). Homes can be informal, small, crowded, unhealthy, unsafe and without basic services but the solution is not always to build new houses. It is rather to upgrade old ones and to legalize existing structures.

The urgent need include better sanitation and infrastructure, but these can be reached in a number of ways. For example, by improving existing buildings with proper water and sanitation, suitable drainage systems and re-blocking smaller parts of the structures to get better access into the area.

One good example is Mumbai where subsidization and development of the public transport system resulted in an increase of usable and appreciated land. After the construction of two new railway lines northbound from the city, the land around every station became desirable and the city could accommodate more people. (Correa 2000:110ff) The question is how to sell the land, and how to be sure that it is not only developed for financial profits, but developed so the urban poor can benefit from this.

Instead of considering the growing population as a problem, cities should be seen as a resource, as a requirement for sustainable growth (Tannerfeldt and Ljung 2006:29). Governments need to realize that the urban poor is an important part of the society and by including them in future plans, the city will be wealthier. Problems with overcrowded cities are often blamed on the urban poor, but the criticism should be directed to the political systems and the government (Tannerfeldt and Ljung 2006:14). Lack of adequate housing is a huge problem but housing without any connecting context is not the solution. It is not about building houses, it is about building communities with access to the public services that the city provides.

Many governments and some donor agencies practice subsidized housing. One problem with this can be that the unit after a while is sold on the informal market to get cash. Subsidized loans requires regular payments, without permanent employment it is difficult to sustain the payments. Rather than end up in debt or with eviction notices, many sell their newly gained land titles preemptively. (Roy 2005:153ff) By selling the unit

the person is back to square one and without any safe housing option and have to settle illegally. Instead of subsidizing land or houses, living options has to be more affordable.

There are also those who will try to benefit from the situation, referred to as professional squatters. Professional squatters can be individuals or syndicates who either occupy land even if they have sufficient income for legitimate housing or sell, lease or transfer awarded titles illegally to make a profit (Ramos 2000:130). Attempts to sort out and exclude professional squatters from benefiting in housing projects will only result in someone being misjudged or fall in between. The solution is rather to look for new, innovative ways to subsidize. Again referring to the public transportation system in Mumbai, it does not only make land available. By subsidizing the railway pass, housing is indirectly subsidized. Previous remote areas, where prices are relatively low, become accessible and housing become more affordable to more people. To illegally make profit from the subsidized transportation is much more difficult than to profit from the illegal housing market. (Correa 2000:110ff) Transportation is of course not the solution to everything, Mumbai still have more than 5 million squatters (Correa 2000:111), but it is one example of what can be done to improve the conditions within the whole city.

In the Philippines, NHA alone is almost the only developer of social housing (Valenciano, interview 2009 11 17). Correa argues that there is a need of hundreds of different delivery systems in order to fulfill everyone's needs and find the diversity in the urban structures and "the qualities so essential to our habitat" (Correa 2000:108). Also Adams, in a discussion on how to drive positive changes for a sustainable future, argues that site-specific strategies must be developed. 'One size fits all plans' will never be effective due to the different challenges and contexts around the world (2006:16). Developers, both governments and private, also need to involve the urban poor in decision making and development processes, to accept their existence and recognize their knowledge.

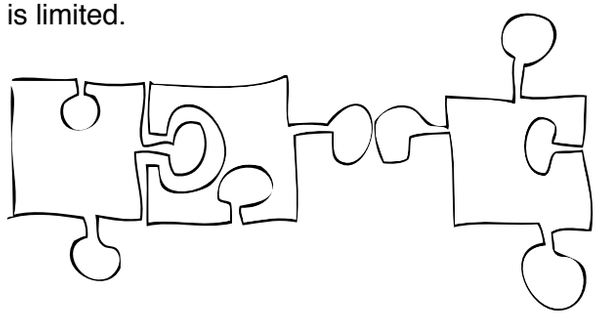
In the Philippines, the need is to develop the urbanity of areas to make them more attractive. The land zoning segregate rather than bring areas together. If properly planned, urban areas should stimulate and enrich each other to make a whole. As stated earlier, houses alone are not enough when the lack of livelihood opportunities, transportation routes and accessible public services is not dealt with. The challenges also include the lack of physical elements such as playgrounds, shaded public spaces and benches. Open space does not automatically make nice meeting places, but places that provide comfortable facilities generate human life. Lively areas, in turn gives wellbeing and security. These are just some issues of importance for the ability to improve the living situation.

Naturally there are more factors of importance for housing developments in urban Philippines. It is also about economy and politics. There is a lack of incentives to pay for a long term investment, politically run organizations often focus in investments that will give results during their mandate periods.

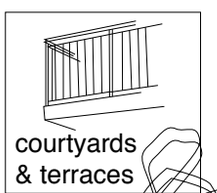
> *"Shelter is a path towards a well-working society with integration, security, economic growth, education and health."*
> Åstrand 2009

GENERAL BACKGROUND
usability and culture

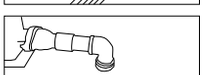
It is important to consider culture when designing homes, and the living environment as a whole. Housing is not only buildings, it is neighbourhoods where every inch is to be used. This chapter looks at how space is used and how to prioritize when the access to land is limited.



the front doorstep



courtyards & terraces



the common water tap or village well

principal open space used by the whole community

Pictures from around Metro Manila shows that Correa's four activated spaces occur even in the Philippines.

NOTES: usability

- consider all space available
- outdoors and indoors complement each other
- identify key places and its use (like Correa)

use of space

When cities are not developed for the needs of the people, poor planning can increase the poverty. By not addressing to the social and cultural needs of the people, their situation is worsened. The climate and the culture of living are resources but are not always taken into consideration in modern 'cost effective' developments. *"There is a brutal mismatch in how our cities have been built and the way people are compelled to use them"* (Correa 2000:106).

There is a tendency to think about housing only as the built-up structure, as isolated boxes. The result is housing projects carried out just as simple equations on how to pile up as many boxes as possible on a given site. Surrounding areas are not at all considered, even in climate zones where the outdoor areas could be used as an extension of the home almost all year around. (Correa 2000:106ff)

Architect Pratima Joshi, founder of the Indian practice Shelter Associates, means that the kind of structures that are built for the urban poor today are similar to buildings that are destroyed in America because of its bad conditions, both on the structures and in the societies. *"In ten years these areas will become vertical slums instead"* (Gordan 2009:46, Authors translation). NHA already experience vertical slums appearing in 10 year old projects, and they neither have the knowledge nor the resources to deal with it (Valenciano, interview 2009 11 17) .

The reason why cost effective housing is developing in the same direction all over is hard to determine. Maybe it is due to lack of other good examples, maybe its ignorance or resignation, maybe the developers are forced by political decisions and lack other commitment. But surly there has to be a change. There is a need for more accessible and inviting architecture and developing processes. It is not a one-man work, it is a cross-sectoral process and the most important actor to consider and involve is the user.

In order to assessing alternative ways to design housing, Correa describes the daily lives of people in rural areas in India. He states that about 75% of the daily chores can be accommodated in outdoor spaces for about 70% of the year. (Correa 2000:106ff) Correa picks out four specific examples of qualities that are often forgotten in the transformation from a rural to an urban context. Especially in new developments for the urban poor in India.

- courtyards and terraces
- the front doorstep
- the common water tap or village well
- the principal open space used by the whole community

If designers consider aspects like these, it is possible to improve housing without increasing the enclosed space. Developers calculating costs for every square meter would argue that it is too expensive to increase the space for each unit in a housing project, especially a cost effective project. With a little extra effort to activate the spaces surrounding the buildings, the improvement of living conditions for the inhabitants would be considerable, and there would be a gain of city space. Public areas that have been used up by private developments will 'reappear' in semi public neighborhood spaces. (Correa 2000:107)

Philippine architect Encarnacion Tan also deals with the relationship between enclosed and open spaces. According to her, small housing units are tolerable if they are surrounded by an open landscape. She does not mean that it needs to be widely spread meadows, the definition of her open space lies in the usability. It should be free to use for everyone in the city. The "urbanscape" is the city landscape, dense but with shared and planned spaces for shopping, jogging, play etc. It is a great value for a dense city if there are possibilities to share some spaces and have public usable areas. (Encarnacion Tan 2009)

culture of living

In order to design better housing, one needs to look at how people live, traditionally and how habits and needs have changed as well as which changes are for the better and which are for the worse.

As an architect, it is easy to make assumptions based on your own needs, norms and wishes. When working in an unfamiliar culture it is important to consider everything one normally take for granted. In a different context priorities might be different. To strive for improvement is not the same as striving for 'Western' standards and blue-print solutions. If not being sensitive to this issue, investments will go to unnecessary items. For example, one of the first priorities in the Swedish home is the kitchen, preferably with a double sink, and obviously indoor. In the Philippines, it is tradition to use the dirty kitchen outside for food preparations. When cooking inside the room is heated up, hence the more you can cook outside, the better.

"the Filipino people are attached to land" During our visits we were often told that Filipinos wants to live in their own single house on the ground. Explanations given varied a little bit. Most people meant that this originated in the traditional rural housing, how Filipinos have been living historically. This is mostly a first generation migrants issue, people born in the cities have slightly different references. But not as much as one would think, the single house is still the predominately image of the home. It is also an expression for the insecurity in tenure. There is a lack of tenure options, and it is always easier to own your own plot and your own house. Once your loans are paid off, you do not have any more diffuse charges to pay.

Lack of knowledge, rent control laws, trust in authorities and good examples makes it difficult to persuade anyone that there are other options. This results in arguments like, *"we are not good at doing things together"* or *"common possessions will just be destroyed"*. Such arguments do not hold.

Walking through an informal settlement shows intricate patterns of shared spaces both indoors and outside, people living their daily lives close together. Obviously this is often a forced way of life, but it is also a proof of the possibilities with the urban life. The wish for a private house and an assigned lot is not only a strive for improved living conditions, it is also a romantization of the rural life. As such is it easy to disregard this wish applying the cruel fact that the cities do not have enough space for people to continue to live the way they have always done. The urbanization calls for interventions when it comes to how tenure options and the home is defined. But is it still possible to meet the dreams and traditions of the 'rural life'? What qualities and attributes are important to transform into the urban context?

living outdoors Correa highlight four specific examples on how the outdoor space is used in the daily life, as written in an earlier paragraph. The uses vary from social interaction in the community to cooking and sleeping. (Correa 2000:107) In order to design a space to be usable, one need to look at what kind of activities take place, how and for what purpose.

Danish architect Jan Gehl classifies three different types of outdoor activities; necessary activities, optional activities and social activities. All three types have different demands on the physical environment (Gehl 2001:11). To be able to understand the differences one have to look closer to these three types of outdoor activities and also define the connections between them.

The necessary activities are, as the word indicates, the activities that are essential in order to fulfill the daily needs. Such activities include going to school or work, going to the food market, some go to the church etc. These are activities carried out all year round and sometimes even if not wanted to.

The optional activities are chosen because they are desirable. If the outdoor conditions are nice one might want to take a walk, or have lunch outside. Someone might bring a good book to read at the square because the comfort is appreciated. The optional activities depend to a high degree on the external environment and the built structure, the surroundings ability to shield from rain, wind, snow or sun. Places designed to protect from the discomfort of the climate will have a more active outdoor life.

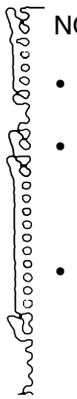
The social activities are the ones that emerge from necessary and optional activities. *"The social activities depend on the presence of others in public spaces"* (Gehl 2001:14). While going shopping one might meet an acquaintance and stop for a conversation or just nod to someone recognized. Gehl states that the most widely spread social activities are the passive contacts. All the everyday meetings not thought of, people passed while crossing the road or while using public transport. Simplified, it is about seeing and hearing other people, what Gehl calls the 'resulting activities'.

If the physical environment allows people to move around with reasonable distances, the flow of people contributes to social activities. In the context of a neighborhood, the result is that people will get to know their neighbors, which in turn leads to a safer environment. Adams states that the activities of human life contribute to the well being of people and there is a direct link between human well-being and security (2006:12).

Gehl's theories are basic and based on the need for humans to interact and connect. The comfort of the outdoor climate is the essential key to qualitative spaces. Also cultural differences influences the life outdoors, to find exactly how it is important to thoroughly investigate movements, habits and patterns.

But is it possible to plan an area that stimulates people's moving patterns to support social activities? How do one encourage social interaction with physical form?

status versus climate Is this praise of the outdoor life a romanticized image of something that is born from constraints? Would people live privately and enclosed if it was an opportunity? Is what we see as a quality actually a restraint? Is it financial assets that regulate the street life? Partly it is, but it is also a climatic issue. As stated, the tropical climate allow for an extended use of the outdoor space. But the climate also makes it necessary, especially when considering both environmental and financial costs of e.g. electricity. It is not affordable to cool down every home with air conditioning, for every room that is cooled down the outdoor space is heated. Investigations show that the temperature in streets surrounded by air conditioned buildings the temperature can be a few degrees higher than in the surroundings (Johansson 2009). Planning for as much natural ventilation as possible along with usable outdoor spaces will be a more sustainable solution.



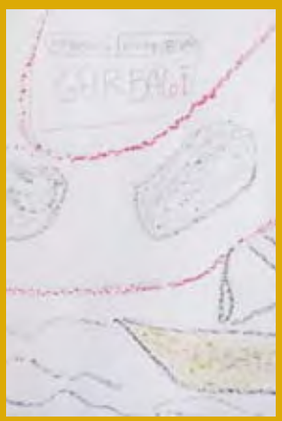
NOTES: understanding

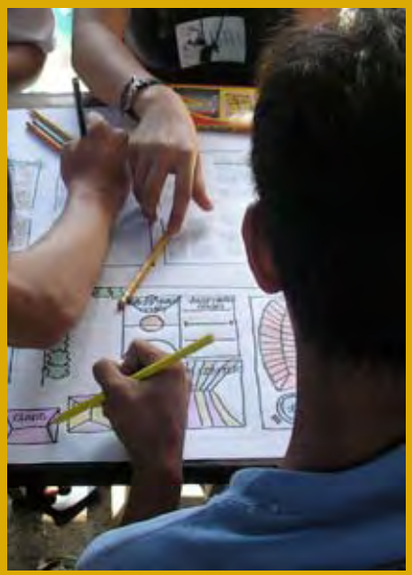
- analyze and document existing activities
- identify qualities and important attributes in need of transformation and adaption to a new setting
- always re-evaluate your conclusions and assess your ability to observe and understand

TAO YOUNG PROFESSIONALS WORKSHOP WATSAN Oct. 22-27 2009

For six days we participated in a workshop arranged by TAO-Pilipinas. It is an annual arrangement based in a collaboration between young professionals/students and community leaders of informal communities. This years theme was WATSAN, meaning water and sanitation. According to the world bank more than 90% of the sewage generated in the Philippines are not treated, resulting in high incidence of health problems. The objective of the workshop was to share knowledge and education, stressing the importance of good waste water treatment for a satisfying access to clean water. Through community participation, problems and possibilities were defined and plans for improvement were made.

We were invited to visit the communities for two days. During our stay in the host families we got an invaluable insight in the daily life of these communities. An important experience for our understanding of the culture, the segregated society and the needs in informal communities.





examples of results from the Workshop

ways to improve the community water supply

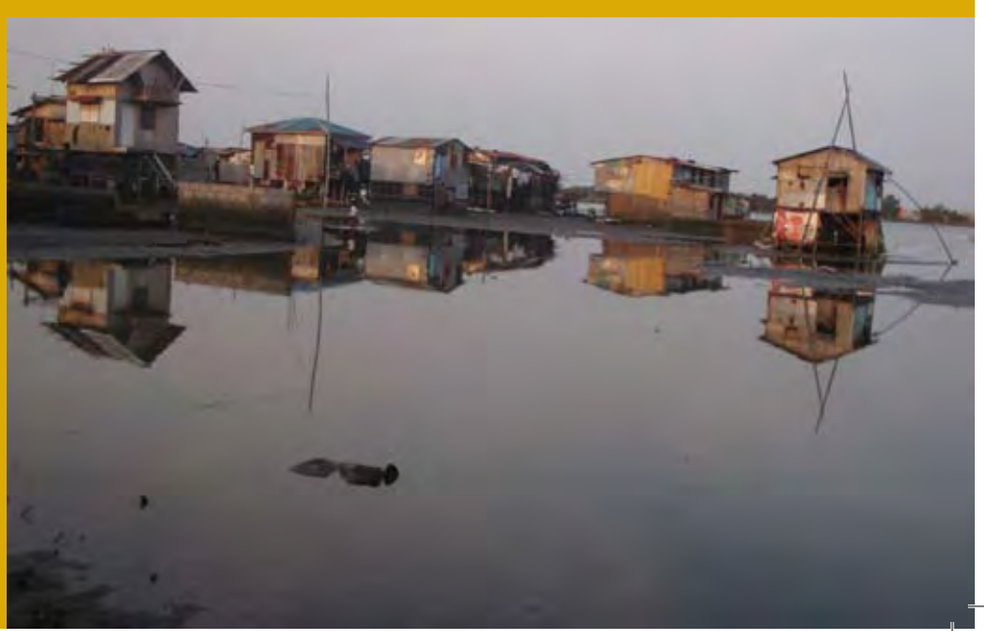
- remove all illegal connections
- report all damages (by SMS)
- save water/use properly
- collect rainwater
- use a basin
- get involved in projects

identified possibilities in the Bicol community, Navotas City

'everyday' things and characteristics the community wishes for

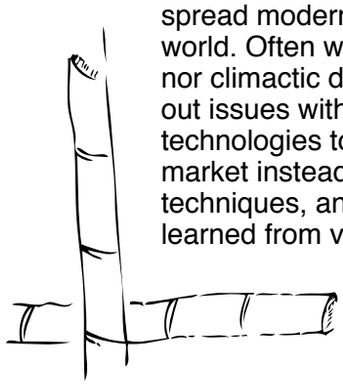
PLAYGROUND
BASKETBALL COURT
CHAPEL
MARKET
PARK
ROAD
SCHOOL
MEETING PLACE
TREES
GARBAGE CANS/BINS

identified wishes in the Bicol community, Navotas City



GENERAL BACKGROUND
preserving traditions

A strive for efficiency and modernization spread modern technologies around the world. Often without regard to neither cultural nor climactic differences. This chapter points out issues with introducing complicated technologies to the cost effective housing market instead of using traditional building techniques, and takes a look at what can be learned from vernacular architecture.



the blessing of technology?

People strive for modernization. Living in modern houses, with high technology, new materials and facilities gives you status. The Philippine people try to adopt foreign lifestyles and technologies. According to Philippine Architect Encarnacion Tan, this is being done on the expense of local culture and the national economy.

If the Philippines were to adopt high-tech building systems to solve the housing needs the national economy would go down, the country can not afford it. Instead, a parallel process with development of Philippine traditional housing techniques should take place. Encarnacion Tan argues that *"processing foreign influences has destroyed the confidence on our own architecture."* Importing high-tech and prefabricated systems from other countries raises the housing costs and the result is that units are affordable only for the wealthy customers. *"Housing has gone from being a social process to being an economic product."* (Jenkins et al 2007:101) This product is inadaptable, conditions differ around the world but the product is the same. Is this the right way for modern technology to be used?

As Architect Rachelle Navarro Åstrand says when talking about the housing sector in the Philippines, technology is required, but the technology should not be seen as a solution in itself (2009). She lists a number of situations when new technologies in fact are inappropriate for housing, especially for self-help builders. First in line is when a technology involves high investment costs. For example, prefabricated construction methods require too much investment to start up the production. The methods also results in products that are non-adaptable to spatial change. The technology limits the possibilities for future development or progressive development.

Modern, especially imported, technologies can also be both culturally and climatically unsuitable to the local conditions. To use prefabrication as an example again, it completely exclude the user from the process. That is a problem when people are used to changing their houses, to adapt them to changes in the living situation.

Not only are the prefabricated and universal systems unfit to the cultural and economical context. It also kills traditional building knowledge, and take away job opportunities (Encarnacion Tan 2009).

learn from the vernacular According to Rosario Encarnacion Tan there has always been a tradition of sustainability in the Philippines. But, as the respect for the vernacular systems weakens, the sustainable traditional houses disappears.

It is not that the Philippine traditions are any more intelligent than others. Vernacular architecture in general has been adapted to the nature of its site (Juul Holm and Kjeldsen 2009:78). Around the world it look differently but vernacular architecture has one thing in common, *"a perfect empathy with the environment"* (Correa 2000:109). Societies have developed shelter and communities for centuries. Vernacular buildings are the result of real life experiences and responds to the life within its societies. These buildings are often made out of local materials, adjusted to the climate, appropriate to life-styles, energy efficient and high-visual.

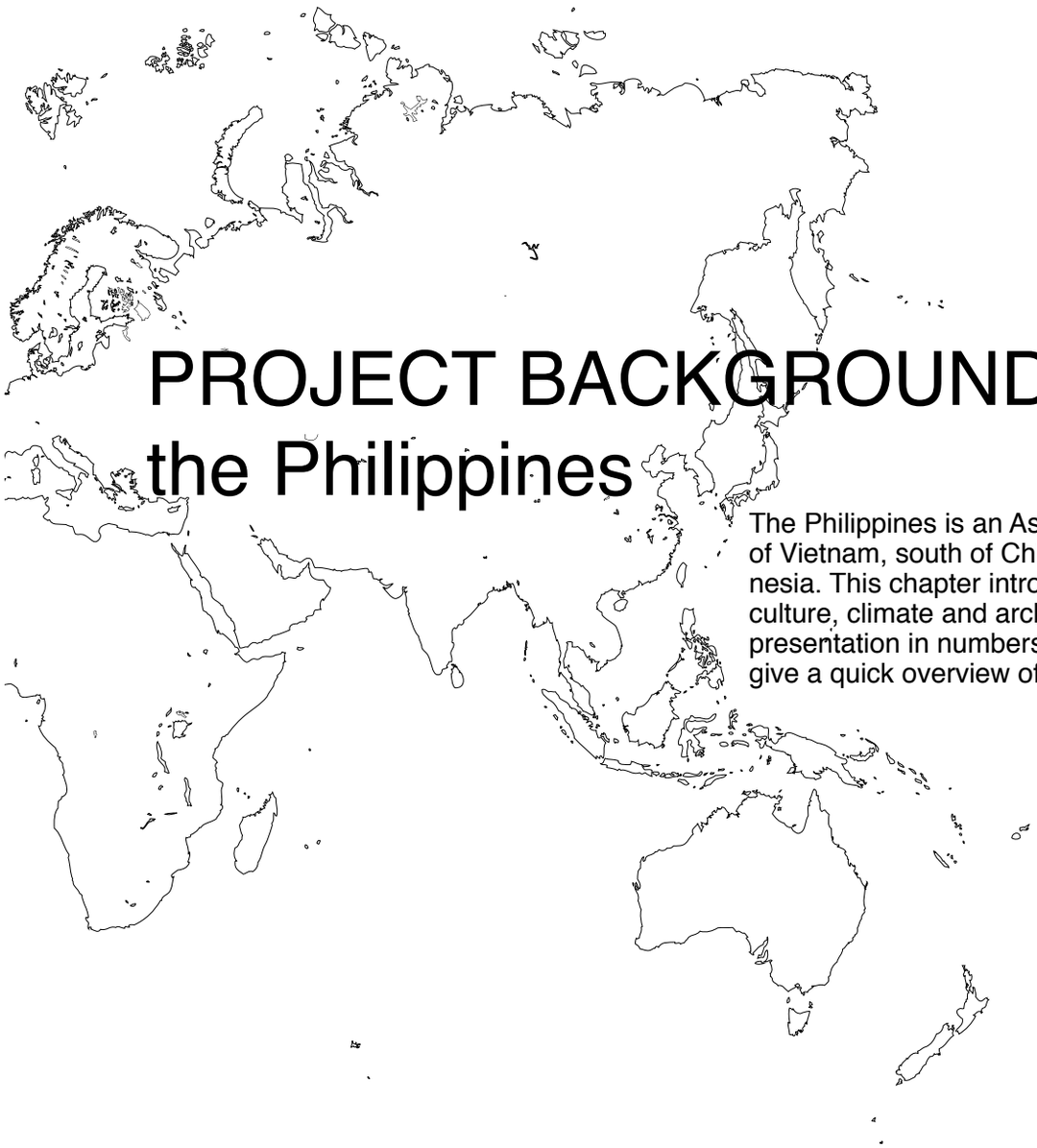
According to Correa the architect's role is to observe every aspect of the building and the life within and around it. The architect need to find out what works well and what does not and then adapt the building to these conditions. Instead, architects tend to search of a miracle cure, a solution to the housing problem unrelated to the origin. This dates back to the industrial revolution of the West, when a common conscience appeared because of the terrible housing conditions for the factory workers around the world. When the needs for adequate housing grew rapidly, the only focus became the quantitative numbers of units. Just like what is seen happening in the developing world today.

Ironically it was a stressed social conscience that made architects to overlook the traditional habitat and the basis of vernacular architecture: adaptation and need. (Correa 2000:108-109)

The setting of homes has changed, from a rural to an urban context, leaving building traditions behind. As stated above, the nature of vernacular architecture is adaptation, so as well as adapting to natural elements it should be transformable into another setting. It should be possible to transform rural building traditions into dense urban structures. The question is how? Encarnacion Tan means that modern architecture should be build in traditional materials with modern, improved, techniques. That is one of many paths to take.

NOTES: learn from local building traditions

- local materials often work well in the climate conditions and are appropriate to lifestyle
- transform traditional idioms and functions to meet present requirements and new settings



PROJECT BACKGROUND
the Philippines

The Philippines is an Asian island nation, east of Vietnam, south of China and north of Indonesia. This chapter introduces the Philippine culture, climate and architecture. Mostly it is a presentation in numbers, graphs and maps, to give a quick overview of important features.

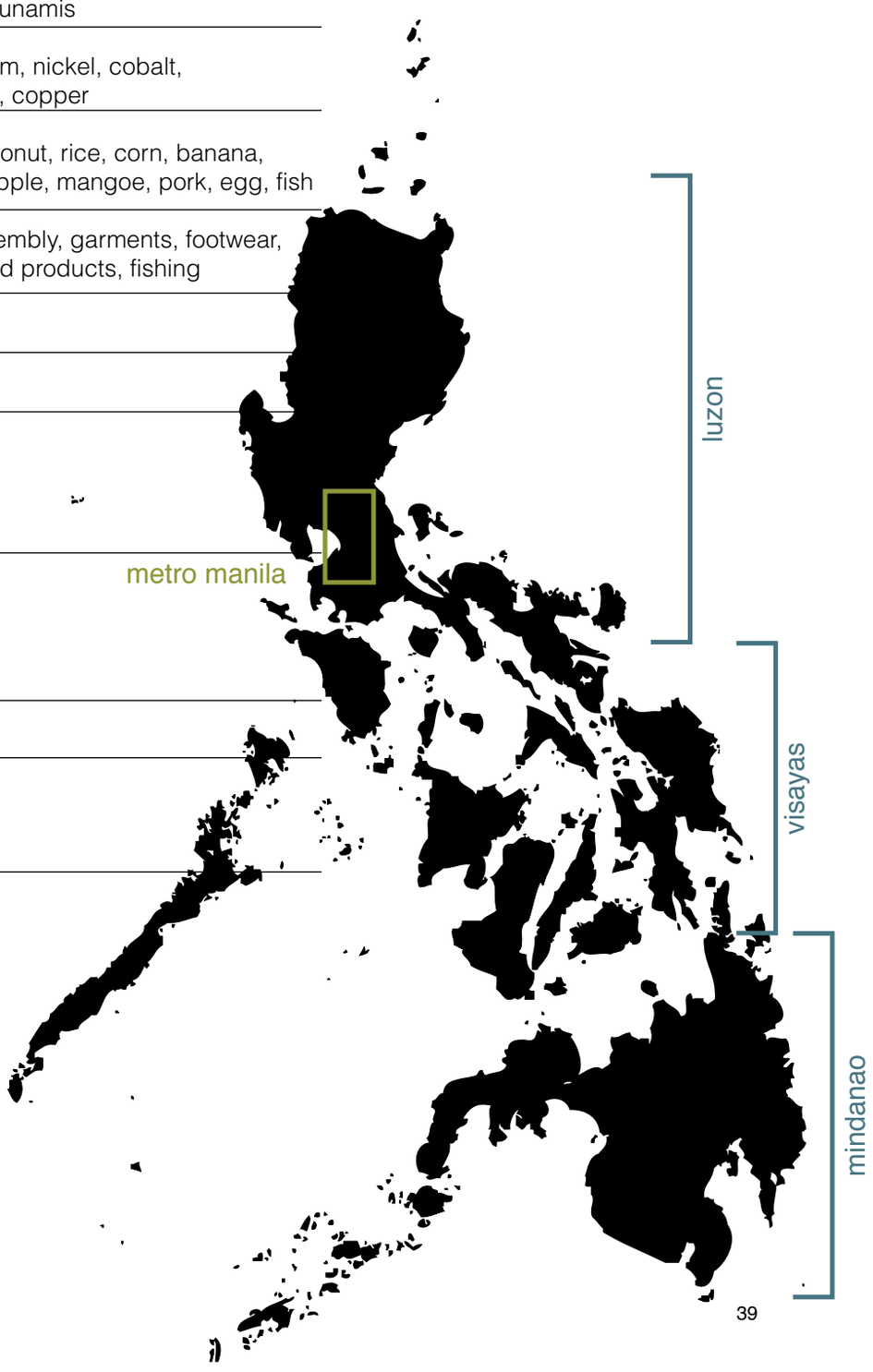
The Philippines have during a long period of time been influenced by a number of different cultures. Influences from Southeast Asian neighbors, China, Spain (and Mexico) and the US have fused together to an eclectic mix. Most present today is the former colonial powers, Spain and the US. Spain brought the catholic church and their traditional urban plan where every city centre developed out from the square with the church and the town hall. The American traces includes the English language as the academic language and the political system. After independence the Philippines have experienced dramatic years. Since the Peoples Power revolution in 1989, that ended the dictatorial reign the Philippines is an emerging republic. (Tomeldan 2009)

Even if the democratic systems work, corruption is widely spread and well known. No Filipino will try to convince anyone otherwise. To change, the challenge is to regain a mutual trust. Many says that the politicians do not care for the people, other than in the hunt for votes, but politicians also get the blame for everything wrong. Just as politicians should not give false promises, people can not expect them to solve everything. The main reason is lack of knowledge, many have too limited insight in how the systems work to know what to expect and demand. They are not part in the decision making or at all aware of their rights. It makes it easy for politicians to put their interest aside. This is why community participation is important in all processes. It is a way for trust to be rebuilt, and the way to find right issues to put effort into.

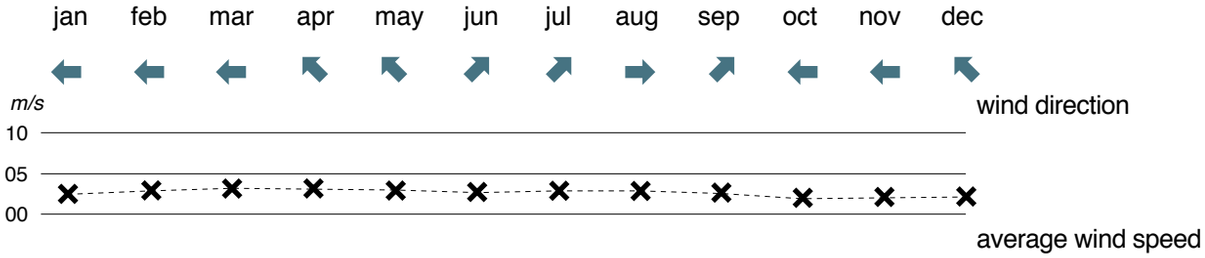
THE PHILIPPINES
7 107 ISLANDS

13° 00’ N 122° 00’ E

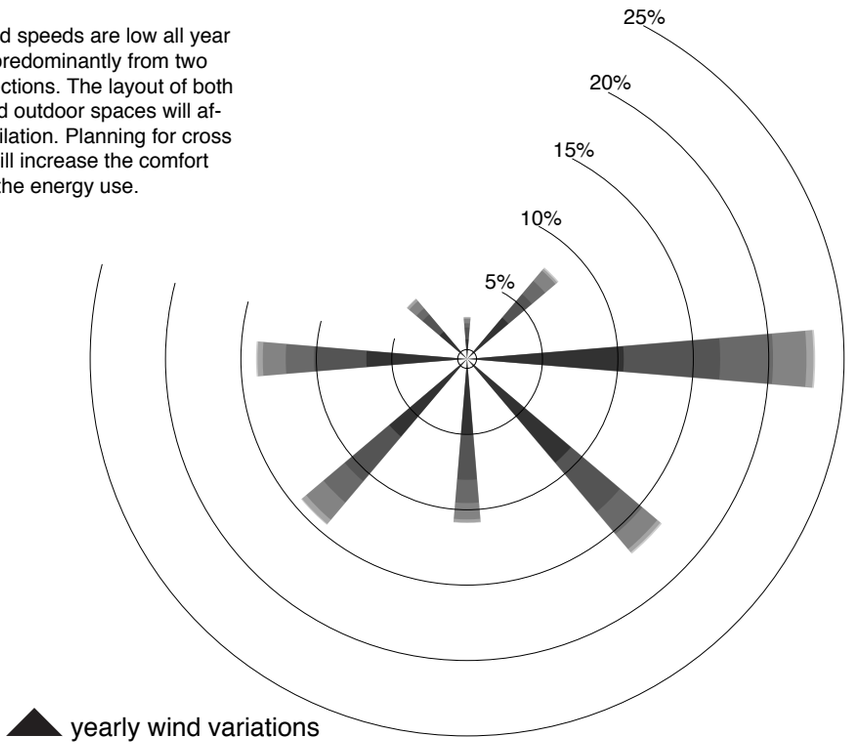
area	300 000 km^2
population	96 061 600
density	320 persons/km^2
provinces	81
cities	136
land use:	
arable land	19%
permanent crops	17%
other	64%
climate	tropical marine
natural hazards	cyclonic storms, landslides, volcanoes, earthquakes, tsunamis
natural resources	timber, petroleum, nickel, cobalt, silver, gold, salt, copper
agriculture products	sugercane, coconut, rice, corn, banana, cassava, pineapple, mangoe, pork, egg, fish
industries	electronics assembly, garments, footwear, chemicals, wood products, fishing
median age	22,3 years
pop. growth rate	1,99%
labor force	36,2 million
agriculture	35%
industry	15%
services	50%
religions:	
roman catholic	81%
muslim	5%
other	14%
governmnent type	republic
independence:	
from Spain	12 june 1898
from USA	4 july 1946

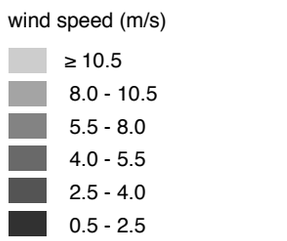


WIND DATA

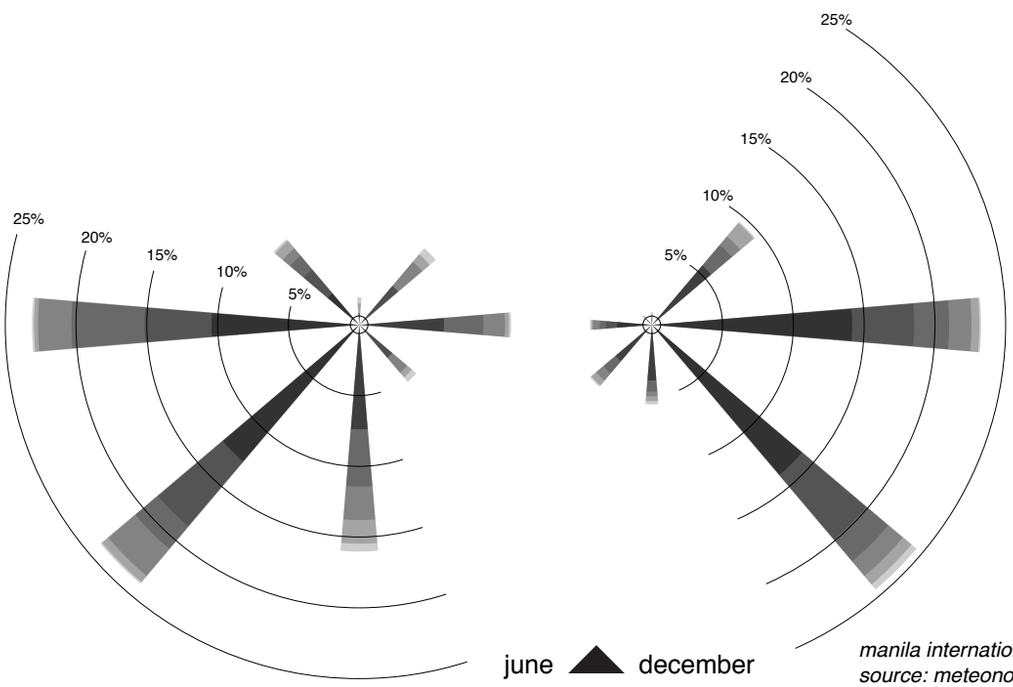


Average wind speeds are low all year round, and predominantly from two different directions. The layout of both buildings and outdoor spaces will affect the ventilation. Planning for cross ventilation will increase the comfort and reduce the energy use.



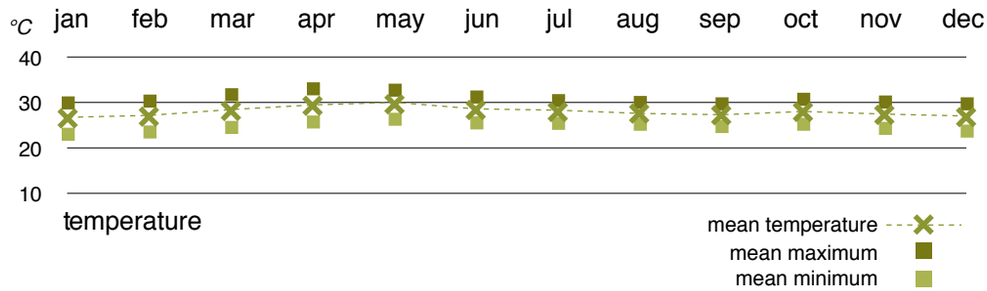


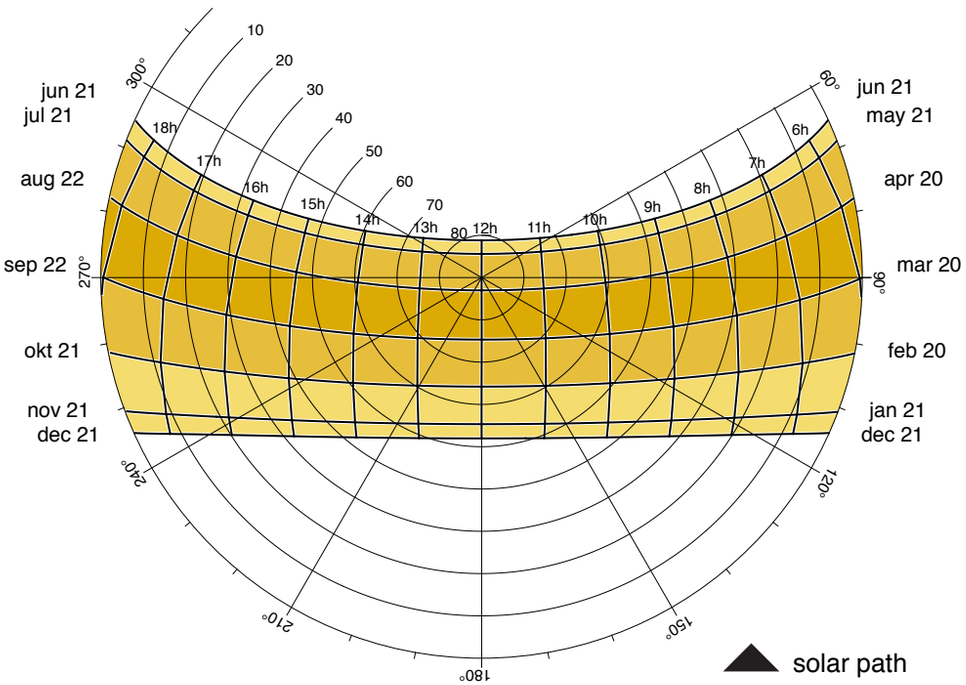
average wind speed: 2.77m/s
calm winds: 4.94%



manila international airport (1996-)2005
source: meteonorm v6/weather2travel.com

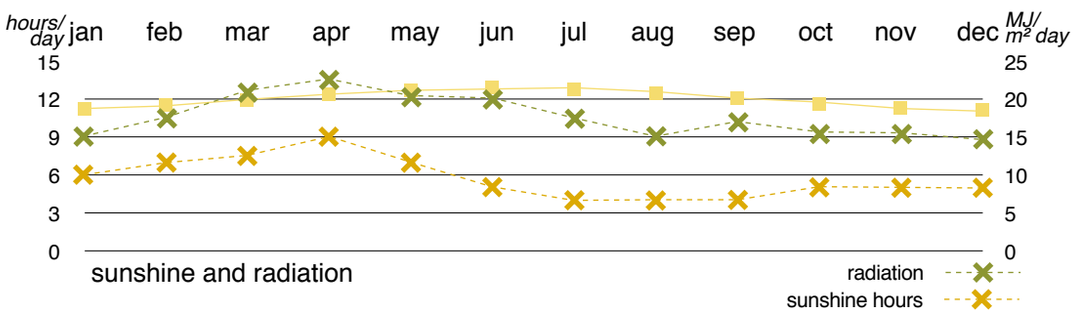
SOLAR DATA

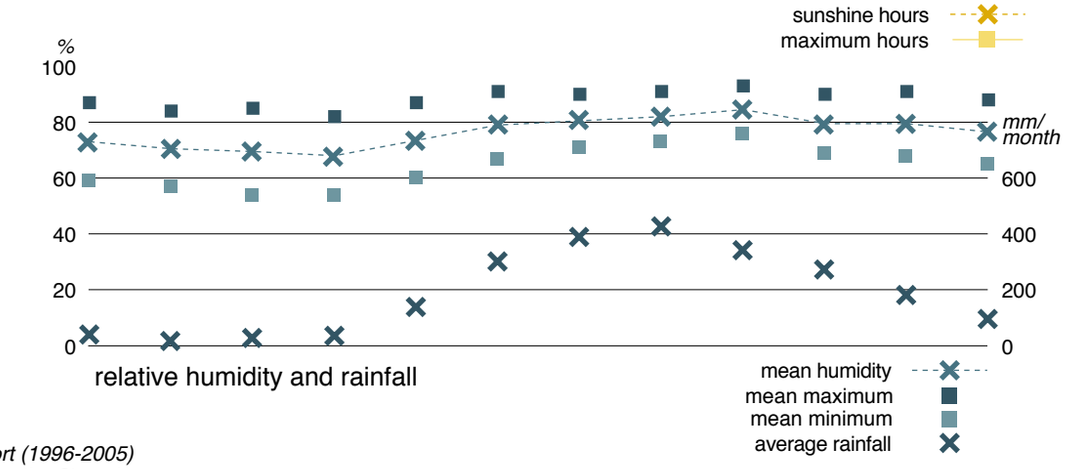




The temperature is almost constant over the year, and it is constantly warm. The rain period brings a lot of rain and reduces the sun radiation a little bit, but the temperature is not affected much. Provision of shadow is necessary for the usability of outdoor spaces. Even openings and facades of buildings needs shading for a comfortable indoor climate.

14° 38' N 121° 4' E
ESCOPA III, Bgy Hall
source: Univ. of Oregon SRML





manila international airport (1996-2005)
source: meteonorm v6/weather2travel.com

the tropical climate

The Philippine islands have a tropical marine climate with rain season and dry season, all year hot and humid. November - April is the northeast monsoon making it cool down and dry up, May - October the southwest monsoon brings heat and heavy rainfalls. The tropical climate makes it vulnerable to typhoons and heavy rains. It is located along 'the ring of fire', a volcano- and earthquake prone area. (David 2009)

Storm-ravaged Philippines braced for 'super typhoon' Parma

STORY HIGHLIGH
- Super Typhoon Par
- Philippines already
- Storm killed at leas
- Vietnam, Cambodia

Next Article in World ›

October 1, 2009 -- Updated 1112 GMT (1912 HKT)

READ VIDEO PHOTOS

TEXT SIZE

(CNN) -- Days after one storm left hundreds dead and most of Manila under water, the Philippines was bracing itself Thursday for the impact of a super typhoon gathering pace in the western Pacific.

Filipinos make their way down a street in Pasig on the outskirts of Manila.

1 of 4 more photos »

Typhoon Parma is expected to bring heavy rainfall and major property damage to the Philippines on Saturday, according to meteorologists.

The storm was upgraded to a super typhoon Thursday as it churned towards the island nation with winds of 240 kph (150 mph). The storm was about 600 miles (965 km) southeast of Manila, the Philippines' capital on Thursday afternoon.

The five-day tracking map shows the storm south of Taiwan on Monday.

Parma comes on the heels of Typhoon Ketsana, which left at least 246 people dead as it passed over the Philippines over the weekend. An additional 38 were still missing, the National Disaster Coordinating Council said.

The storm affected nearly 2 million people and forced the evacuation of 567,000. At one point, 80 percent of the capital, Manila, was under water after experiencing the heaviest rainfall in 40 years.

The storm, downgraded Wednesday to a tropical depression, also killed at least 74 people in Vietnam and nine in Cambodia.

A major clean-up operation continued Thursday as Filipinos set to work repairing the damage caused by Ketsana.

In the city of Pasig -- part of metropolitan Manila -- enterprising residents used inflatable mattresses as makeshift boats to ferry people through flooded streets.

The government, which some people said did not act quickly enough, opened up part of the presidential palace for aid distribution.

Several nations have offered humanitarian assistance to the Philippines. United Nations Secretary-General Ban Ki-moon said the organization was considering an emergency appeal for aid as several U.N. agencies also pledged support. The World Food Program said it will provide rations to 180,000 people. E-mail to a friend | Mixx it | Share

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- Scores killed in Philippines floods
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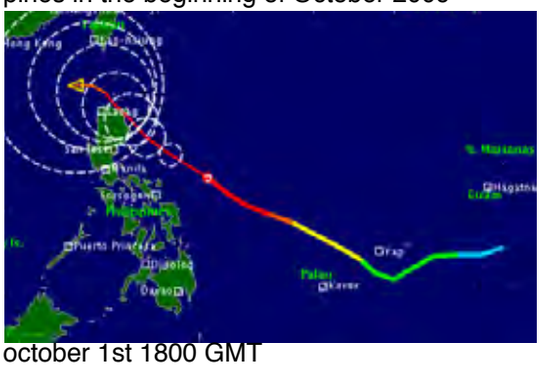
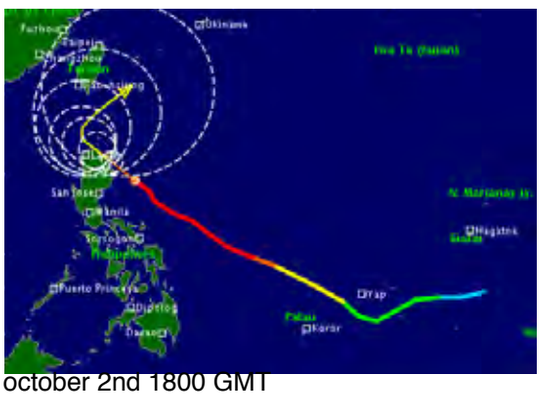
cnn.com October 1st 2009

TYPHOON PARMA approaching the Philippines in the beginning of October 2009



october 1st 1800 GMT



october 2nd 1800 GMT

october 3rd 1800 GMT

october 4th 1800 GMT

TD TS Cat 1 Cat 2 Cat 3 Cat 4 Cat 5

NOTES: design solid and prepared homes

- solid constructions
- layout buildings according to prevailing wind directions, to reduce wind loads
- prepare the building for evacuation, both upwards and downwards

typhoon Ondoy

On September 26th the typhoon Ondoy (internationally known as Ketsana) struck the capital region and caused tremendous damage. In six hours, 410 mm of rain fell over Metro Manila and Laguna de Bay (to be compared with the average annual rain fall in Sweden of 700 mm). At its worse, 80% of the capital was submerged in water and mud. About 300 persons were killed, half a million were forced to evacuation and 2 million homes were submerged.

The country suffers from about 20-25 typhoons annually, in different strengths and with different amount of rain fall. The monsoon phenomenon affects big parts of the world, and it makes the seasons predictable, the frequency of the typhoons are the same from year to year, but since the seventies they have been growing in strength. Oceanologist Laura David (lecture 2009 10 22) tells that the rise in sea surface temperature fuels the storms, and affect their directions. This makes their damaging effects even worse when new areas are passed and the wind directions slightly change. Nowadays almost 8 million people are badly affected by weather catastrophes every year (Lusterio 2009).

The current warning systems for typhoons works well regarding spreading information on approaching typhoons. The problems related to these systems include inaccuracy in estimations and lack of resources for evacuation if needed. In the case of Ondoy, the amount of water that the storm brought was unprecedented, and not predicted. The masses of water could not evacuate along the main rivers because of both informal settlements and real estate developments along the river banks, as well as garbage and sediments filling the rivers. In an article in The Manila Times (2009 10 02) one can read the statement by architect and city-planner Felino Palafox Jr. ”Stop blaming God. Blame stupid officials and greedy real state developers for the flood damaged by tropical storm Ondoy”. Palafox means that areas identified as vulnerable zones has been bought and developed, against their classifications, by private developers. This is one of the reasons why also middle and upper class inhabitants were affected by the heavy floods. Another reason is that even areas not usually flooded were submerged in this heavy storm.

Two weeks after Ondoy another, stronger, typhoon approached Manila. Typhoon Parma was closely followed as it gathered strength outside the west coast of Luzon, follow its path to the left. “Fortunately” for the already damaged metropolitan it passed north of the capital region, causing damage to the fishing villages and rice terraces of North Luzon.

These recent calamities have forced a new approach to disaster risk management. In October 2009 a new legislation was added, Climate Change Act 2009 puts Disaster Risk Reduction as the “first line of defense” against climate change risks as well as ‘regular’ disasters. This means extra resources to development and poverty reduction programs, disaster risk reduction measures and climate change adaption plans. (Navarro Åstrand 2009)

"The bamboo house don't fall, it just dances in the wind"

Rosario Encarnacion Tan 2009

Philippine architecture

The traditional Philippine houses are called Bahay Kubo, which basically means "house cube", and are still seen in rural areas all over the country (Gardner 2006). As understood by the name, the Bahay Kubo has a square plan, other attributes are the distinct and easily recognizable roof and that the house often is built on stilts (see picture).

Traditionally, the cube is one single room, a multi-use space for sleeping, eating etc. A front porch adds space for a "dirty kitchen" and is usually also the place for social gatherings and the basic daily life.

Another common name of this house is Nipa Hut, this refers to the Nipa palm whose leafs are used for both roof and wall elements. The load-bearing structure is constructed in bamboo while woven panels in nipa makes the walls and the roof is an intricately braided system of nipa leaves. The classic architecture is, to 50-70%, constructed in bamboo (Encarnacion Tan 2009 10 22).

This "simple" building is a showcase in beautiful handicraft but it is also a long time development to adapt to the climate. The open structure and the airy materials let the air flow through but shades the direct sunlight. The stilts both increase the possibility for airflow around the building and make the house less vulnerable to floods. The elevated building creates a shaded and protected space for storage, domestic animals or household work beneath.

The roof has multiple climatic advantages as well, the overhang is large enough to shadow all facades from the burning sun and the overall shape is to avoid damages from the typhoons. By angling the roof on all four sides, the impact from the strong winds is reduced. Often the roofs needs to be renovated or replaced after every rain season anyway, but as long as they are built in well known techniques and in local materials it is easy to repair. (Tomeldan 2009, Varona 2009)

In some provinces there is a vernacular stone building technique that was developed to withstand earthquakes. A kind of high-technology solution where the ground was built with big stone blocks allowing it to move with the earth. While variations of the nipa hut still is the most common building in rural areas, the stone buildings are a rare sight nowadays. (Ignacio 2009)

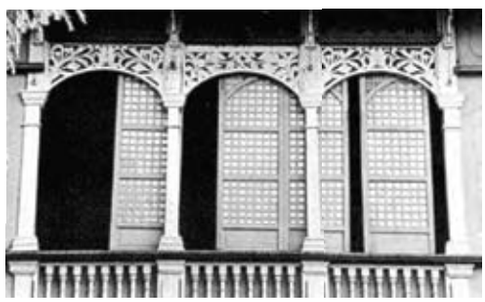
The Spanish colonials quickly learned about the need for earthquake proof buildings. The first buildings where built in classical Spanish manor, noble stone buildings. Although the Spanish architecture worked well in the tropical climate, it was not at all earthquake resistant. The response became an adoption of the Philippine structures, but with aesthetic elements from Spain. (Gardner 2006)

Houses of the Philippines today showcase a mix of nipa huts, Spanish colonial villas and churches and, at least in the urban areas, American classical monumental authority buildings. Finally business districts add modern high rises built in modern technologies and materials. Unfortunately these modern buildings often lack climate sensitivity. Natural ventilation has been replaced by air condition etc. Just relying on modern technologies makes them unfit for the Philippine conditions.

NOTES: Philippine characteristics

- transparency between indoor and outside
- 'front porch' as living room
- open structure and airy materials for improved wind movements
- built-in shade provision, generous roof overhang etc.

the traditional nipa hut



the Spanish colonial style

urban structures of today

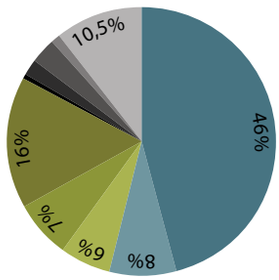
PROJECT BACKGROUND
Quezon City

Quezon City is the largest, the wealthiest and the most populated of the 18 Metro Manila cities. It is also the location of our thesis. This chapter is getting closer to the project site, through the city profile, information on the developer and further analysis of the present conditions of the site. Its resources and qualities, limitations and challenges. The last step to get into the design proposal.

QUEZON CITY

Quezon city is the largest and most populated city within Metro Manila. QC was created 1939 to be the new capital of the Philippines, with a plan for all government administration to move into new buildings around the Quezon Memorial Circle. The plans were never followed through, and in the 70's the city of Manila was again made capital city. Although, some government agencies, such as the National Housing Authority, and the congress are still located in QC.

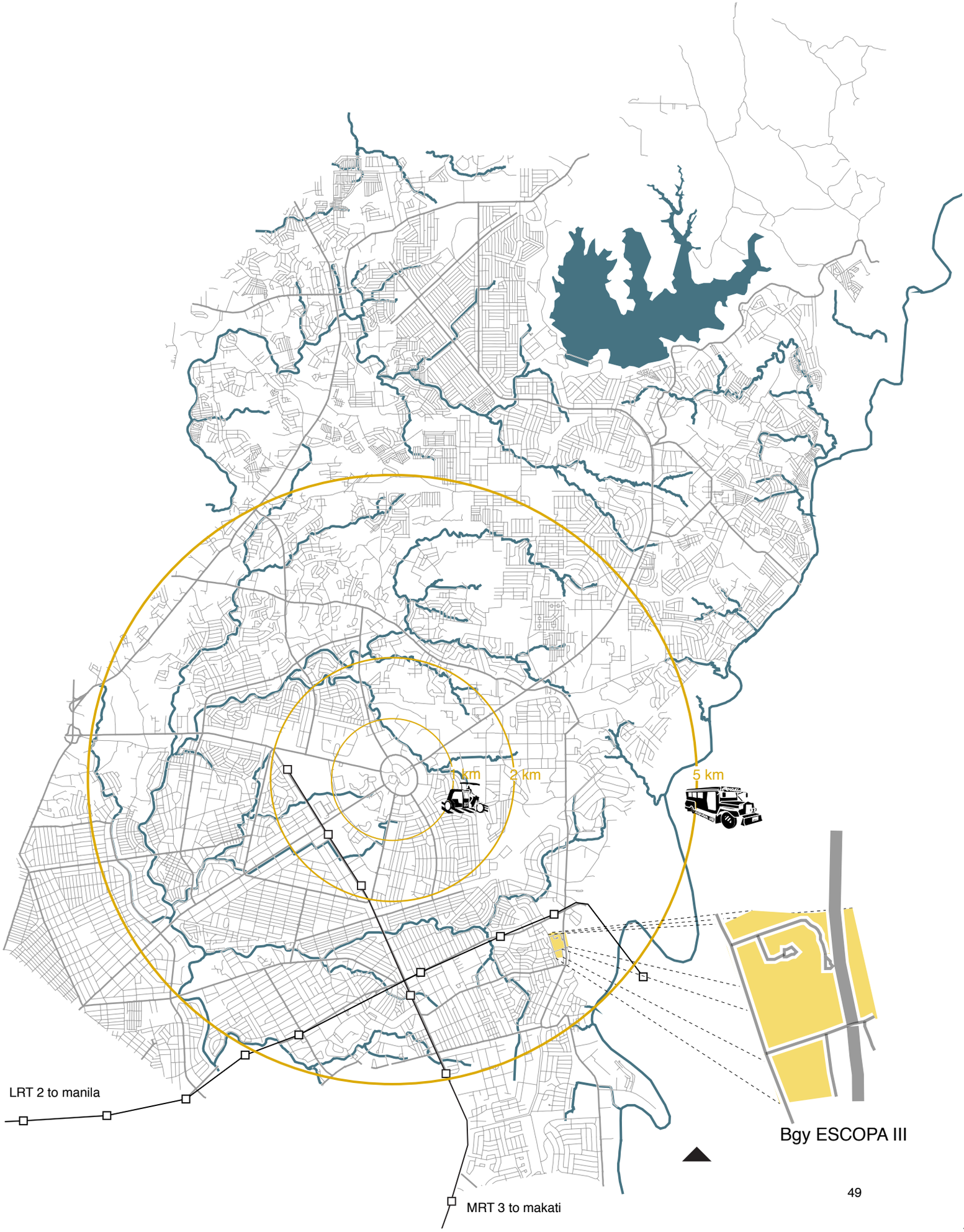
area	161 km², 25 % of metro manila
population	2 679 450, 22 % of metro manila
density	16 600 persons/km²
barangays	142
land use (%):	
residential	46
commercial	8
industrial	6
institutional	7
utility	16
socialized	0,5
sdz	2
parks/recreational	3
cemetery	1
roads & waterways	10,5
traffic (vehicles/day):	
EDSA	116 823
commonwealth ave.	99 185
quezon ave.	69 237
public transport (%):	carry 71% of tot. passenger volume
jeepneys	57%
busses	38%
taxi	5%
tricycles	17 339 tricyles in QC, 137 routes
garbage	1 500 tons/day
average household	4,49 members
employment:	
employed	85%
unemployed	15%
dependency ratio	2:1
household income (mounth):	
average income	32 700 PHP | 710 USD
average expenditure	29 500 PHP | 640 USD
expenditure (% of income):	
food	31%
shelter	25,6%
mobility	10,5%
population age:	
-24	52%
25-64	56,1%
65-	4,1%



METRO MANILA

area	635 km²
population	11 550 000
density	18 200 persons/km²
cities	18

source: Quezon City Comprehensive Development Program 2003
www.citypopulation.de


1 km
2 km
5 km
LRT 2 to manila
MRT 3 to makati
Bgy ESCOPA III

HURA

The Quezon City Housing and Urban Renewal Authority Inc. is a corporation owned by the Quezon City Government. The mayor of QC created the company in May 2003 as an answer to a socioeconomic profile of the QC urban poor conducted in 2002. The purpose is to undertake housing projects for the residents of Quezon City, to reduce urban blight within Quezon City and to provide technical assistance for urban renewal.

organization The HURA office has a staff of about 30 employees, spread over different fields of expertise such as economics, accounting, political science, social science and engineering.
The company is organized in four units: Project Development Unit, Estate and Community Management Unit, Engineering and Construction Unit, Finance and Administration Unit.

HURA homes I In 2005, the first housing project, HURA Homes I phase I, was built in Barangay ESCOPA III. The project consists of two buildings of five stories each. The units are 15 m² and in both buildings the unit count is 80 (making 160 units in total). It is a condominium system where every resident buy their own unit and a share in the building. Selling prices varies according to floor level, where average price is 199 000 PHP (4 340 USD) and is the actual price of the 3rd level units. Lower floors are more expensive, higher more cheap. HURA assists with housing loans, standard loans are with a payment plan over 25 years and 6% interest. This gives monthly amortizations for a 3rd floor unit at about 1 600 PHP (35 USD).

HURA homes II, phase I and II In 2007, another project was built in two phases in Barangay Vasra, closer to the Quezon City Memorial Circle and the City Hall. Four houses were put up in two phases, all with 80 units in five stories. The overall layout is very similar to the first project in ESCOPA III, however with slightly larger units of 21 m². Selling prices were also a bit higher, with the average of 425 000 PHP (9 270 USD), the loans are similarly planned.

Features of HURA homes I (according to the booklet):

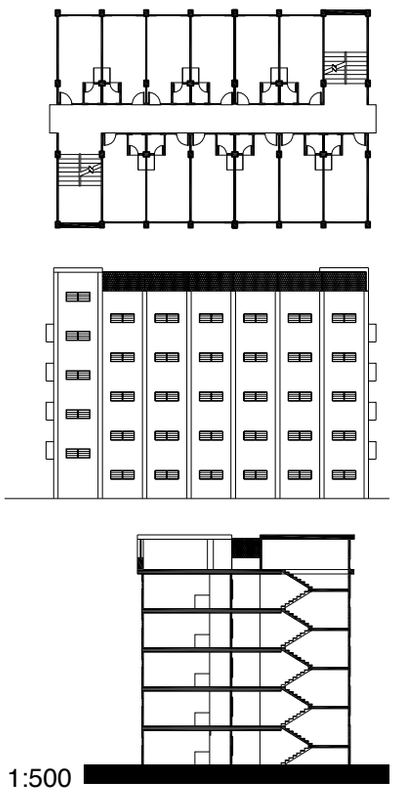
- water supply with individual meter per unit
- electric connection with individual meter per unit
- bathroom lavatory pail flush toilet
- overhead water tank with cistern
- emergency fire alarm system
- concrete roof deck with waterproofing and wire mesh

Loan qualification requirements (abstract)

Employment issues:
- preference to applicant with permanent employment
- priority to applicants with longer employment within QC Government

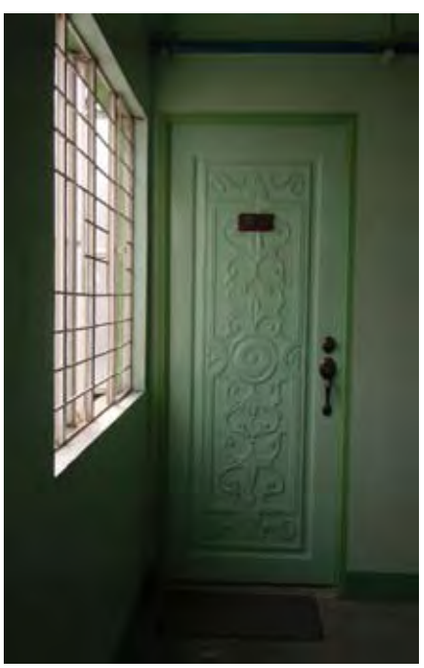
Financial issues
- applicants must not have availed previous assistance
- applicants must not have been co-borrower in any housing loan
- applicants must have capacity to pay monthly amortizations of at least 2 800 PHP (61 USD)
- applicants with lower salaries will have priority
- applicants must not have any property in Quezon City

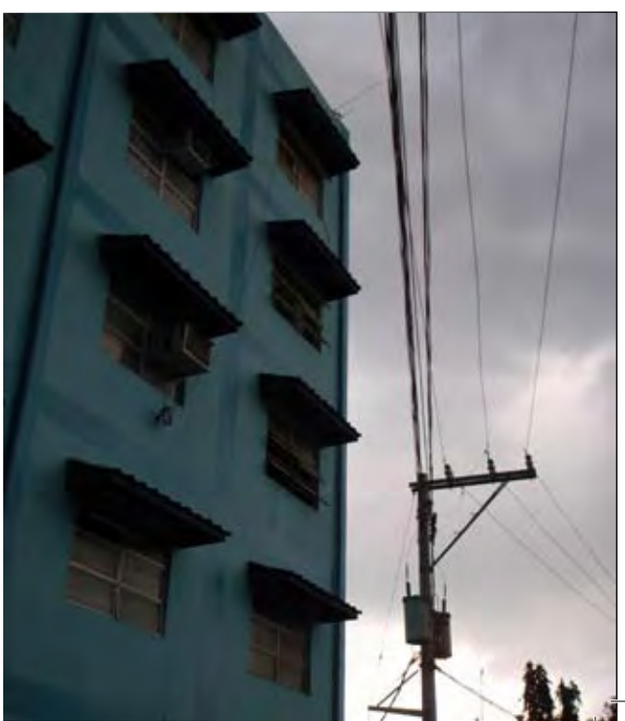
PROPOSED DESIGN FOR
HURA HOMES 1 PHASE II



1:500

the home owners associations To ensure proper maintenance of the buildings, HURA over see the constitution of a Home Owners Association (HOA) for each project. The HOA has the mandate to collect monthly fees for the maintenance of the common areas, including electricity and lighting in the corridors, they also have the power to decide the use of common areas, such as roof terraces. The projects should be self-sufficient but so far the HOAs have been assisted by the Estate Management Unit at HURA, providing with organizational training and assists in the planning for neighborhood gatherings.





procedures Much land in Metro Manila is squatted, and to redevelop the land, relocations are needed. The UDHA law (Urban Development and Housing Act) from 1992, states that squatters on governmentally owned land can not be evicted without resettlement options.

The Act regulates the relocation procedures. To be included in the UDHA, one must be able to prove settlement on the site for a longer period of time, preferably from before 1992, and proof that they have not been awarded any earlier governmental subsidies.

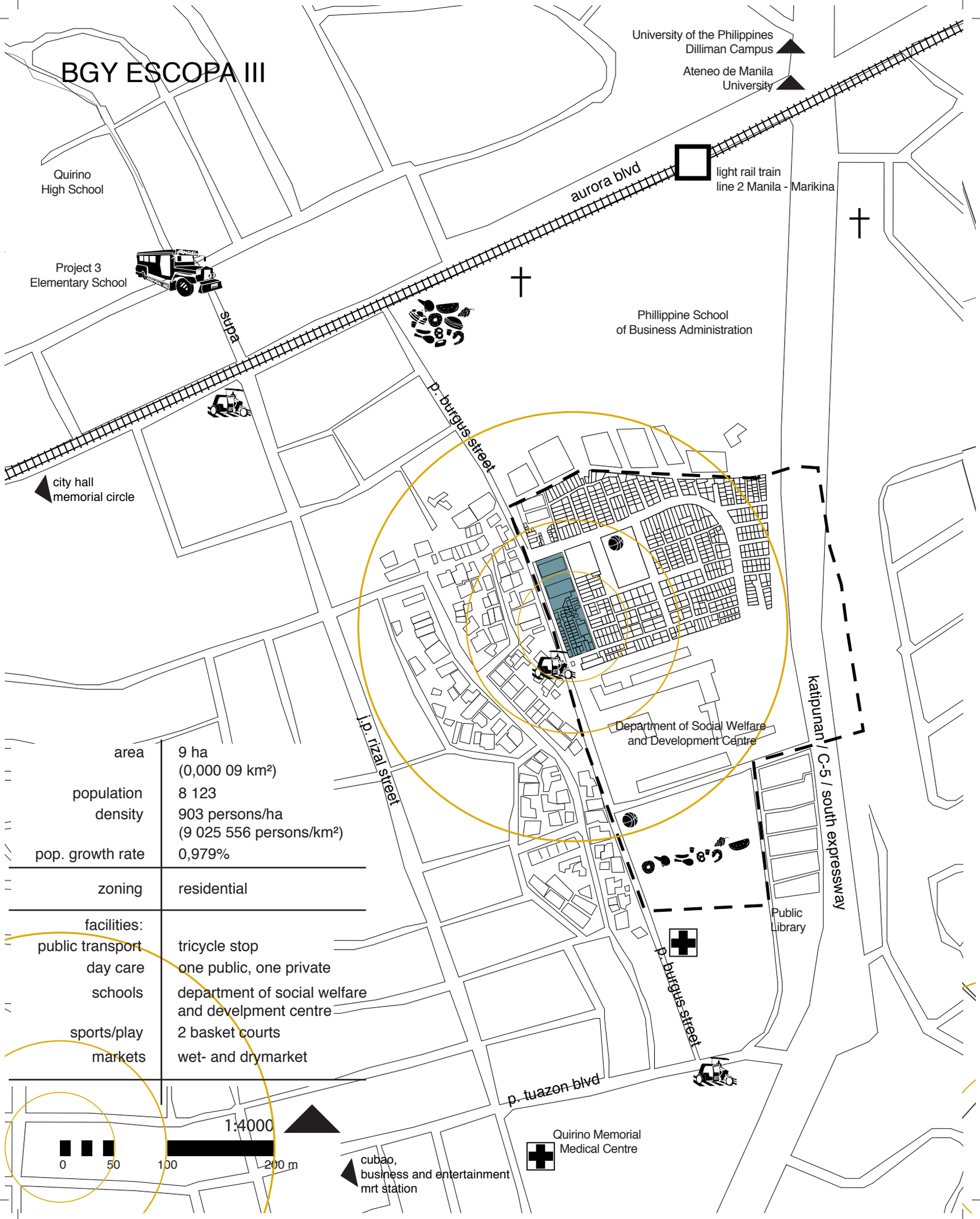
To determine how many of the squatters that qualify for the rights in the UDHA, HURA 'screen' the informal settlers at the development site through interviews and verification of documents. Qualified households have four choices:

- To apply for a unit in the HURA development (if they meet the financial requirements);
- To relocate to a NHA resettlement site (outside of Quezon City)
- To receive financial assistance equivalent to about two months of minimum wage; or
- To take part in the Balik Probinsya program.

Balik Probinsya means "Back to the Province", and is a try to decentralise the population again. Families get subsidies for starting over, back in their 'home' provinces. This is however the least popular choice and many previous beneficiaries quickly return to the Manila region, where they can find livelihood.

social housing in the Philippines The National Building Code regulates all housing in the Philippines. Every residential development, even high end ones, must include at least 20% social housing. In practice, most private developers donate 20% of the development costs to NHA. Social housing is defined by the selling price of the unit, which needs to be below 300 000 PHP (6 540 USD). Building social housing make developers eligible to tax reliefs and have special building standards in the Building Code in order to make it possible to produce at a low price. The Building Code defines another level of cost effective housing as well, called economic housing. Economic housing is also defined by the selling price and include developments from the social housing limit up to 750 000 PHP (16 350 USD).

BGY ESCOPA III



area	9 ha (0,000 09 km²)
population	8 123
density	903 persons/ha (9 025 556 persons/km²)
pop. growth rate	0,979%
zoning	residential
facilities:	
public transport	tricycle stop
day care	one public, one private
schools	department of social welfare and develpment centre
sports/play	2 basket courts
markets	wet- and drymarket

SITE ANALYSIS

jeepney stop 5 min
lrt station 5 min
city hall 20 min (3 km)

basket court

HURA homes phase I

p. burgus street

An overall analysis of the site, and its closest vicinity, shows resources and constraints in need of consideration. Most obvious is the vibrant social life within the informal settlement on the south end of the site. Referring back to Gehl, marked activities are the social activities born from both optional and forced chores such as cooking, laundry, home work, play and a card game.

vegetation

minor commercial activities

public facilities/sports

social gatherings

water

trafficed streets

pedestrian streets

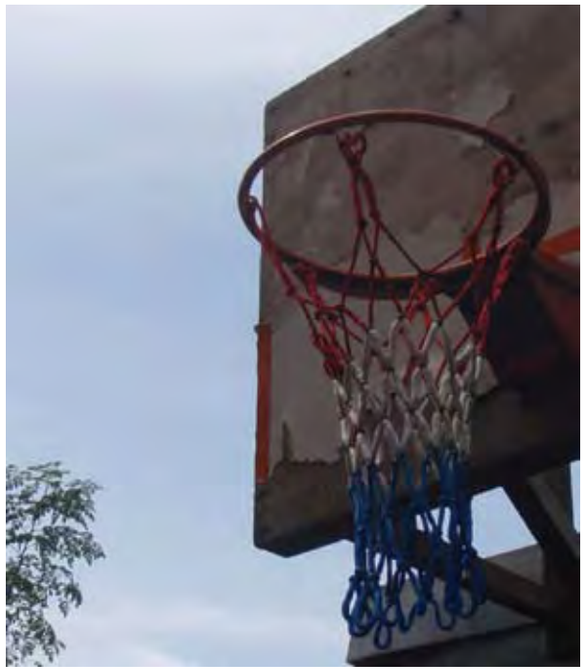
barangay hall

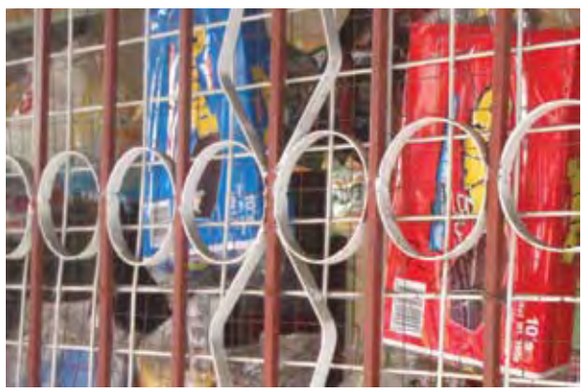
jeepney stop 5 min
cubao 20 min
(mrl station and "city centre")

1:500

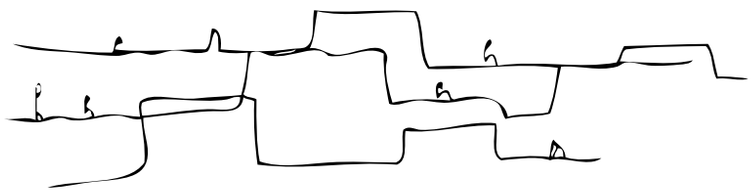
0 5 10 20 m

Bgy ESCOPA III






PAY
PHONE



DESIGN PROPOSAL

The design proposal is based on the ‘philosophy’ that space needs to be optimized for its user, in special regard of usability and climate. The design process started from a list of criteria gathered through our research and field studies (marked out through the previous chapters) and end in a review of the result, how do the design meet the criteria? This chapter guides through the whole process..

design philosophy

The design focus has been to optimize the usability and the micro climate within this building. To come up with a sustainable solution that is affordable and meet HURA's requirements. Through distribution of space, open and closed areas, private and public zones, the physical environment will support the social climate in the community, and with a design sensitive to the climate conditions the micro climate will be comfortable.

As we have argued through this report we think there is a need to find solutions that allow the daily life to take place outside, even in new developments. Of course privacy is important in a building where there will live about 600 people, but there is also a need to be able to use, and have easy access to, the public areas close to your home. The standard for economic housing is 24 m² in the Philippines, if there are possibilities to extend your home for daily chores that is a valuable quality.

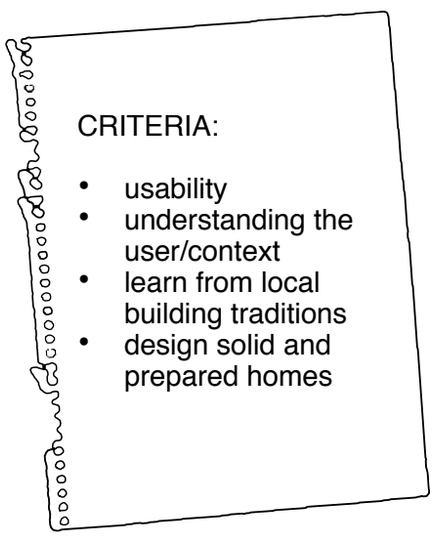
Outdoor life rely on the physical environment and if the open to air areas are to be used one important factor to consider are the climatic comfort. This building is designed to provide the well needed shade and good possibilities for cross ventilation, of every unit as well as of the in-between spaces. Considerations taken about materials has been related to the possibility for local production in the Philippines, and out of local resources. Even the cost of the material and maintenance aspects in combination with aesthetic motives have been important considerations.

The project is a result of the analysis of the existing conditions of the site. It is a project that combines the structural, 'hard', qualities from HURA homes I phase I and the social, 'soft', resources seen within the settlement situated on the site today. Within the building open pockets are created to be used and to allow for a natural air flow and everyday interaction between people.

design criteria When gathering all notes taken through the process we end up with a number of design criteria, all supporting the overall philosophy. These criteria are shaping the outline of the building proposed.

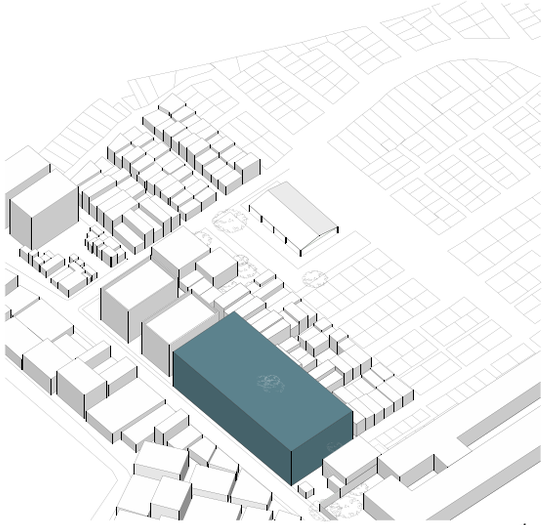
the building in short The structure is a conventional concrete pillar and beam system, the most common way to build in urban Metro Manila. A familiar method that have good resistance to natural hazards, such as earthquakes and strong typhoons.

The structure and the materials are cost effective and make an affordable product. The building still meets the standards and requisites of the usability and generation of life that we believe are important for a sustainable outcome.



'GETTING INTO SHAPE' STEP BY STEP
1. THE AVAILABLE VOLUME OF SPACE
2. CONTINUOS STREETS AND POCKETS FOR THE EXISTING TREES
3. DIVIDING THE VOLUME INTO FLOOR LEVELS
4. DIVIDING THE FLOOR LEVELS INTO OPEN AND CLOSED SPACES / PRIVATE AND PUBLIC ROOMS
5. CONNECTING UNITS AND LEVELS WITH BOTH HORIZONTAL AND VERTICAL STREETS
6. FINAL BODY

GETTING INTO SHAPE



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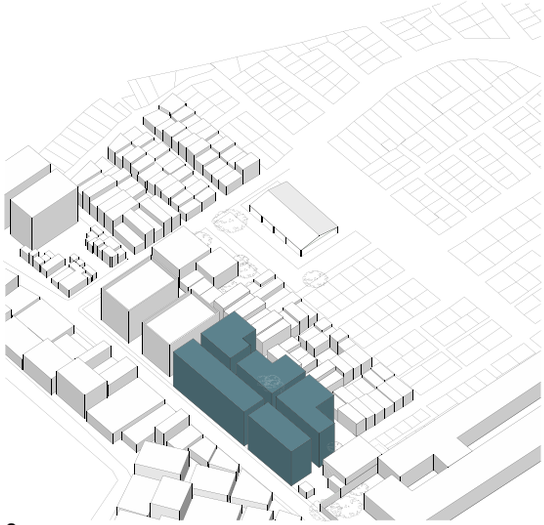

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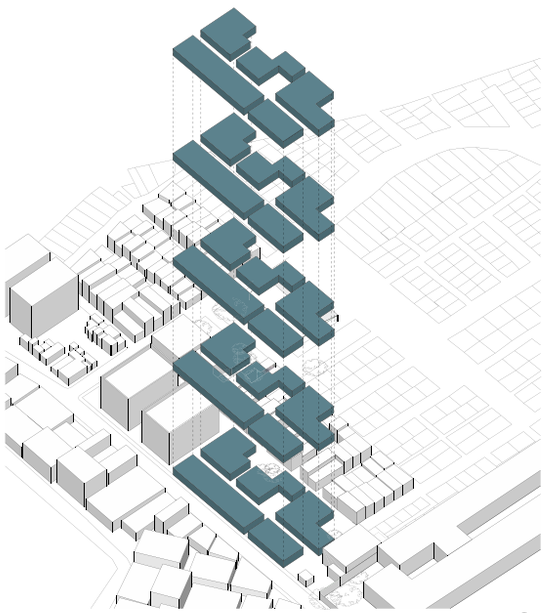

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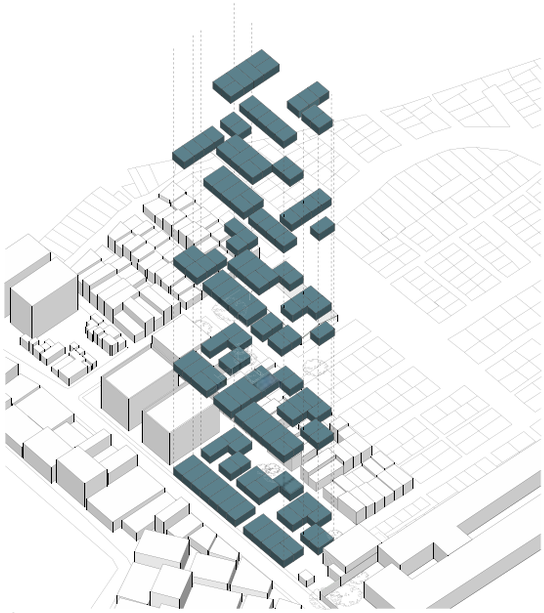

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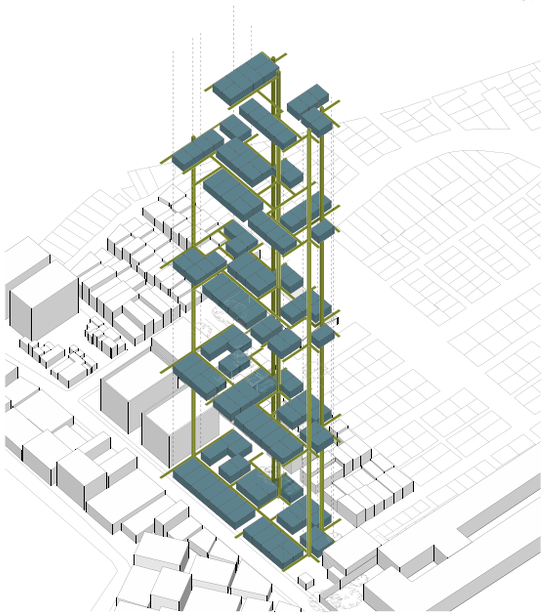
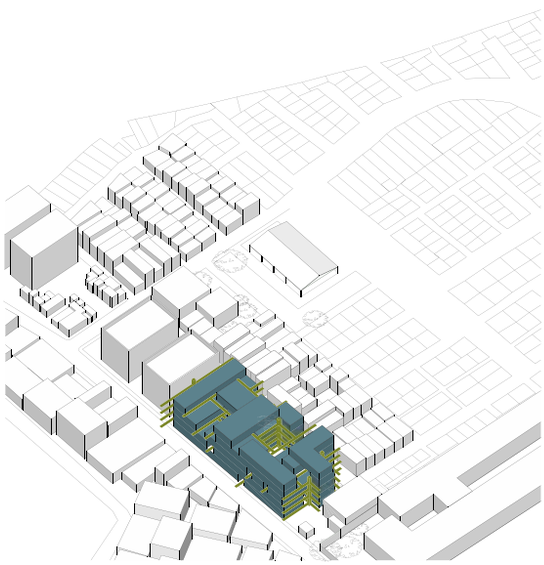




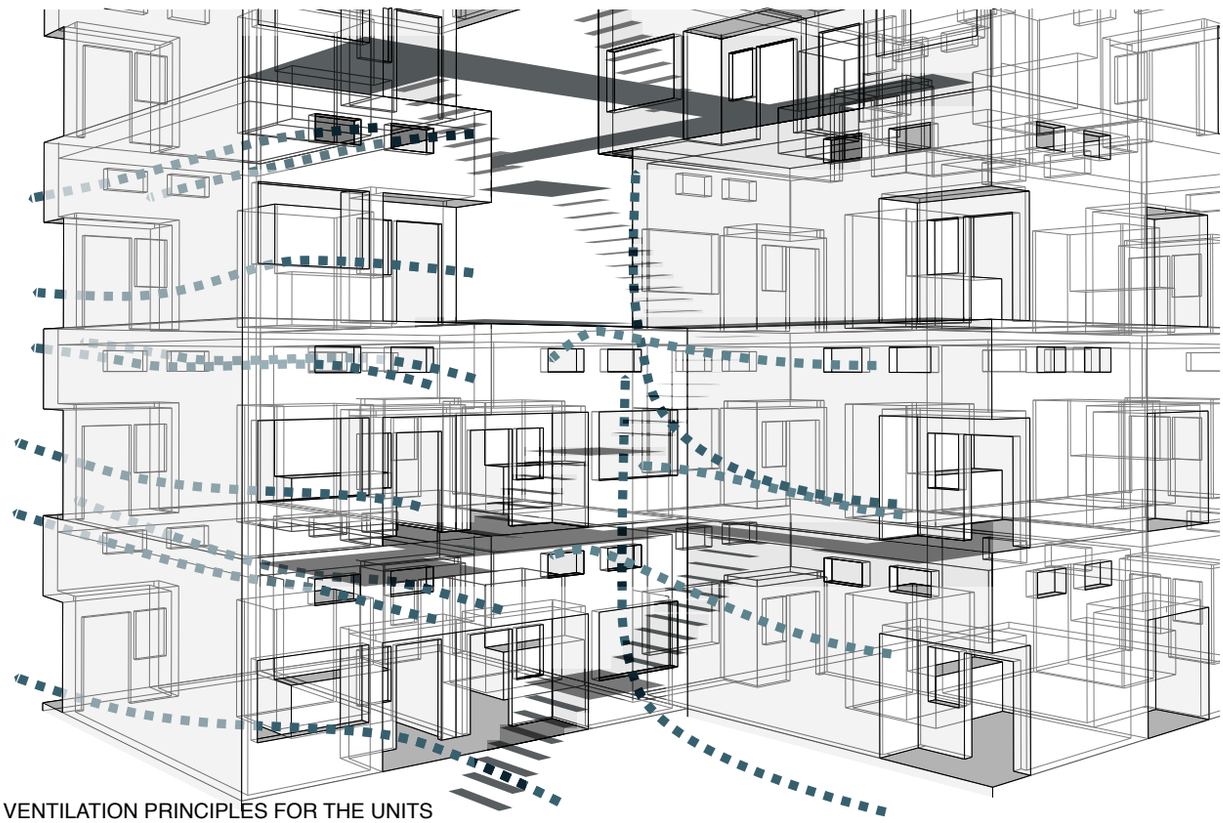
micro climate

The high temperatures around the year calls for cooling. To achieve a comfortable climate in, and around the building, there are two main issues needing to be addressed. Good ventilation and shade will help considerably, and even if the indoor areas still needs fans every now and then, the energy consumption will be reduced for every hour one can do without.

Wind speeds are mostly low, with exception for typhoons, and the neighborhood is densely built so the alleys and streets on lower levels will have difficulties getting sufficient ventilation naturally. However, there are ways to help the wind conditions a little. The whole building is laid out in a way that all units take advantage from the prevailing wind directions. At the same time the volume as a whole limit the wind load from typhoons. The south-west corner is the most exposed point for the heavy typhoons, and the solid corner will split the wind streams to pass around the building.

Every unit have the possibility for cross-ventilation, openings on opposite walls in two levels creates an air flow through both sleeping lofts and living areas. The ground floor still have limited access to wind, but the layout of the building will help increase the existing air movements, see right page.

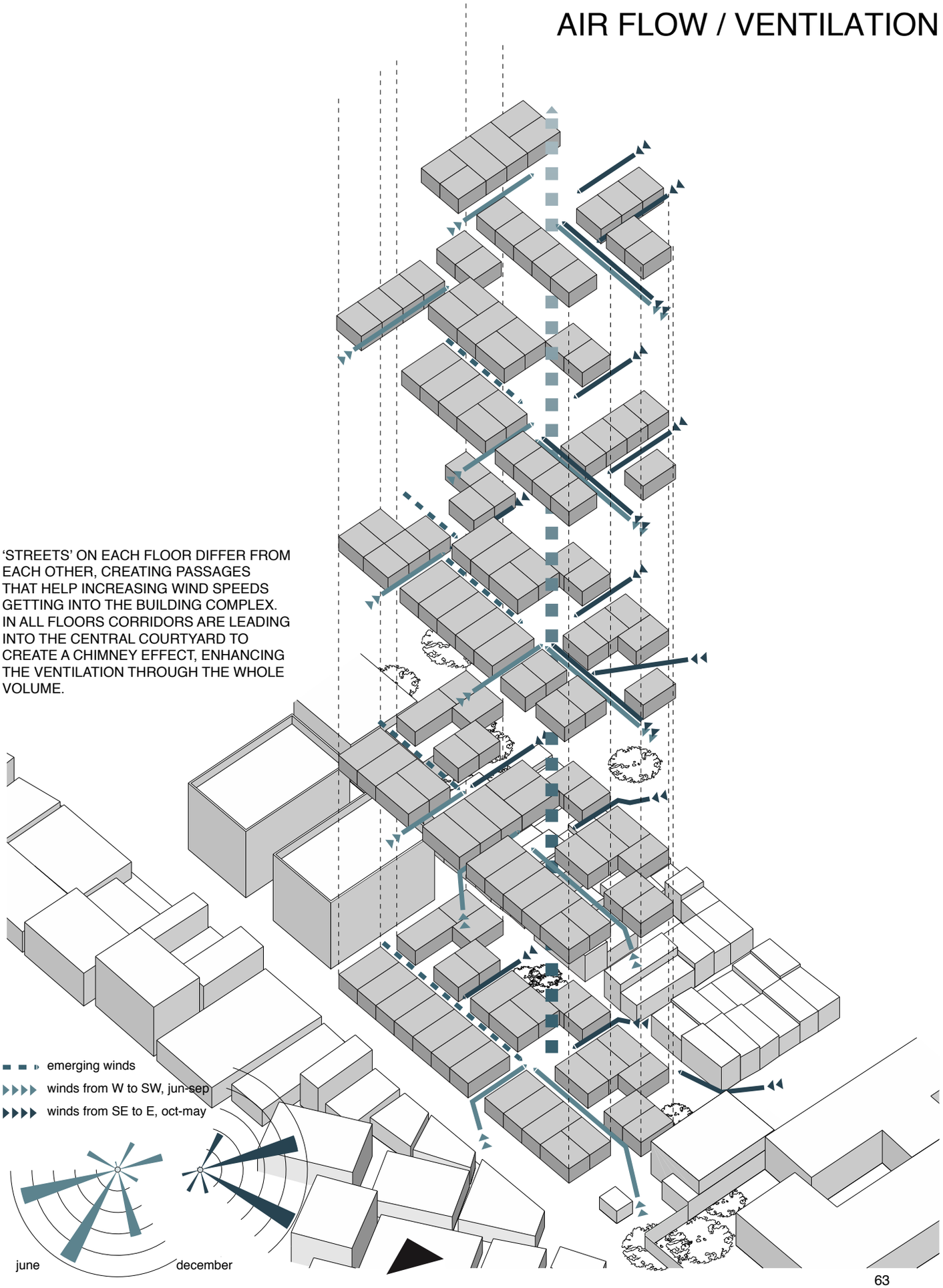
When it comes to the hot sun, shading is needed both for indoor climate and outdoor. The following spread will show how the building perform in shading itself over the year, and what difference the roof and balcony/gallery structures make.



VENTILATION PRINCIPLES FOR THE UNITS

AIR FLOW / VENTILATION

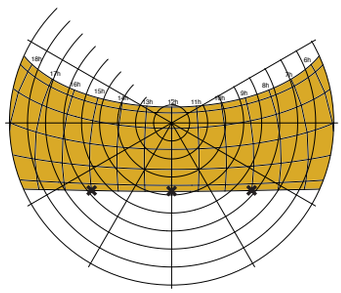
‘STREETS’ ON EACH FLOOR DIFFER FROM EACH OTHER, CREATING PASSAGES THAT HELP INCREASING WIND SPEEDS GETTING INTO THE BUILDING COMPLEX. IN ALL FLOORS CORRIDORS ARE LEADING INTO THE CENTRAL COURTYARD TO CREATE A CHIMNEY EFFECT, ENHANCING THE VENTILATION THROUGH THE WHOLE VOLUME.



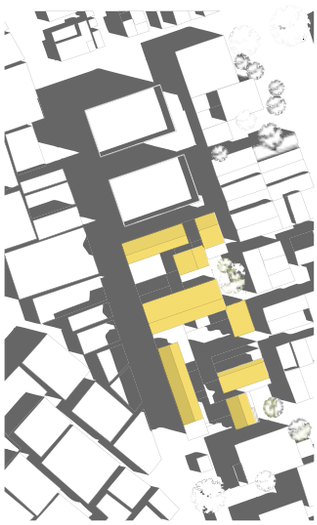
SUN CONDITIONS
OVER THE YEAR

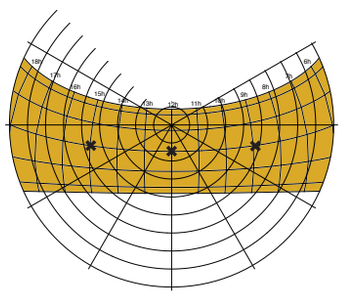
am noon pm



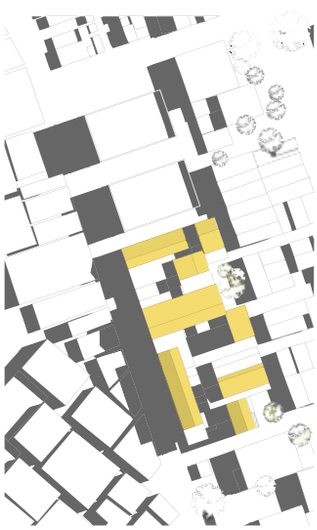


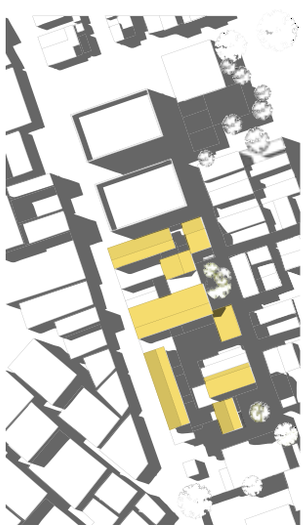
dec 21st

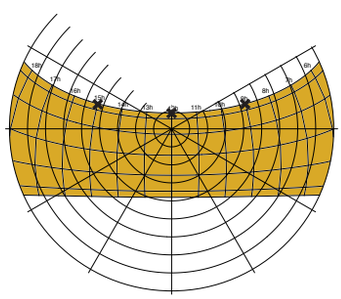




mars 20th / sep 22nd



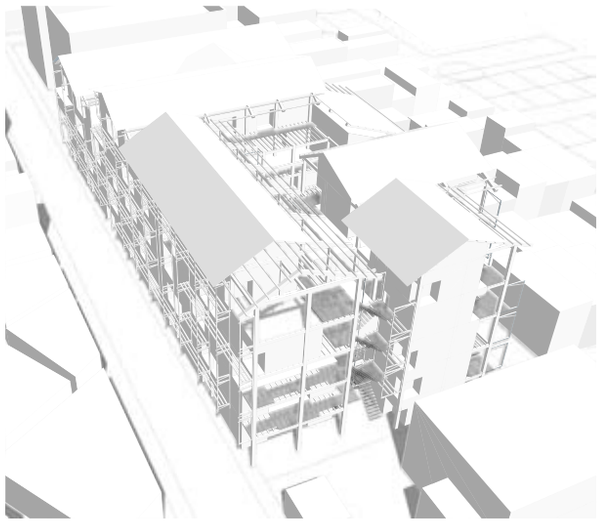




june 21st

SHADING DEVICES

further possibilities for shading, to hang on the structure



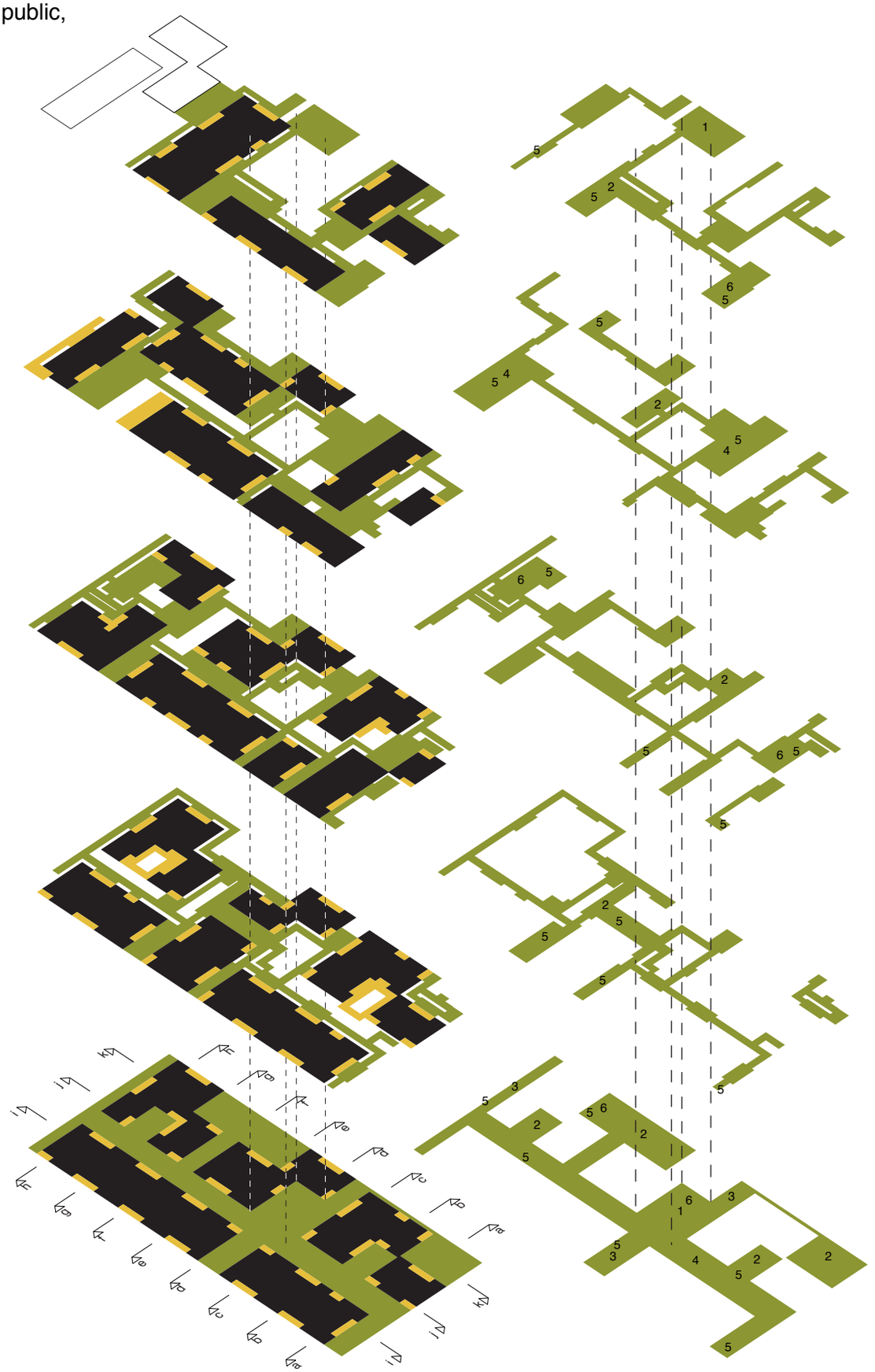
NIPA / BAMBOO

VEGETATION / GREENERY

PARASOL / TARP

USE OF SPACE

axonometric diagrams of the space distribution, between open and closed, private and public, spaces



fourth floor

- 420 m²
- 47 m²
- 369 m²
- 615 m²

32/68%

third floor

- 728 m²
- 96 m²
- 460 m²
- 355 m²

50/50%

second floor

- 770 m²
- 85 m²
- 490 m²
- 308 m²

52/48%

first floor

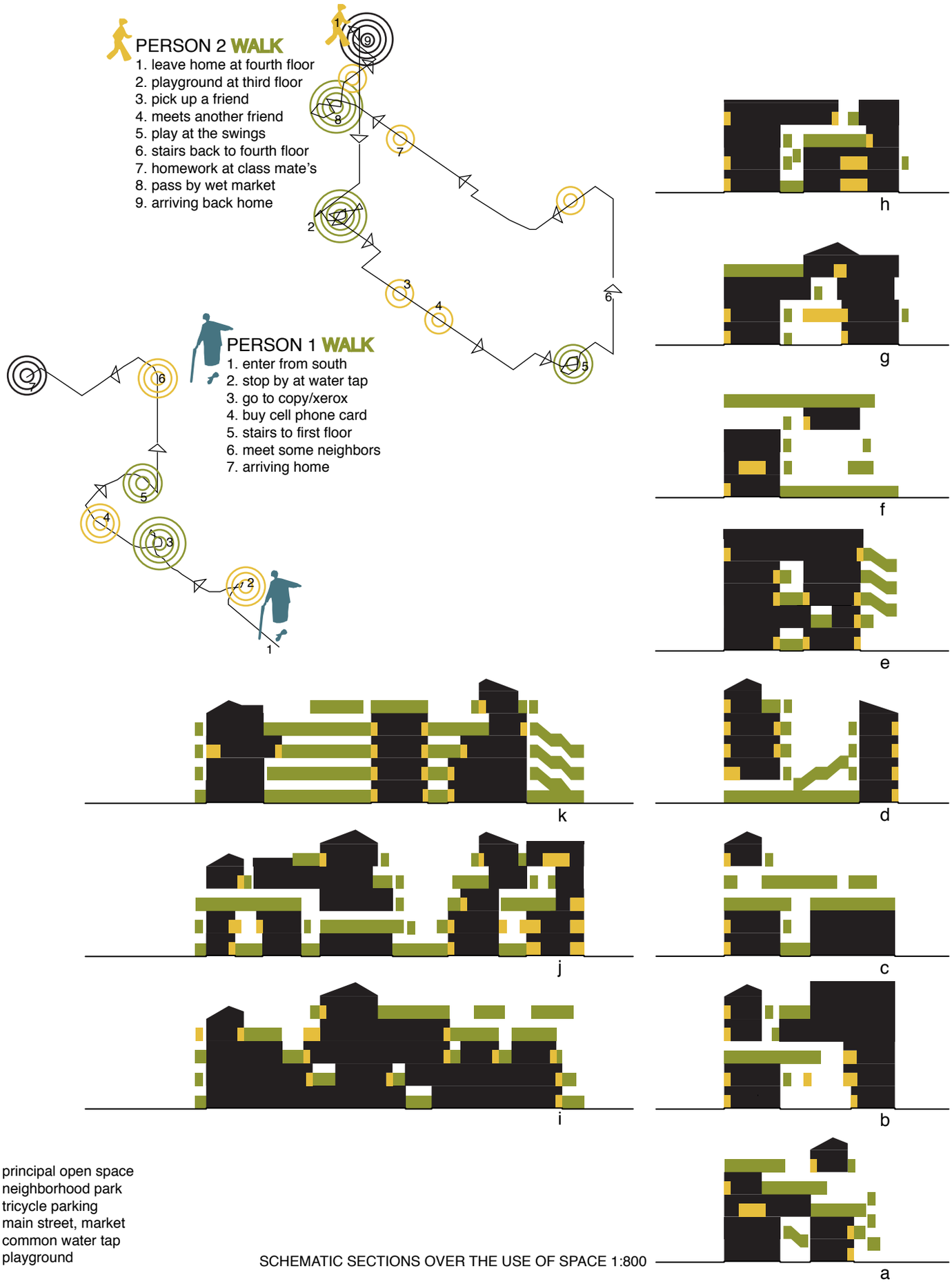
- 830 m²
- 110 m²
- 395 m²
- 328 m²

56/44%

ground floor

- private 858 m²
- semi public 110 m²
- public 696 m²
- open

built/open 58/42%

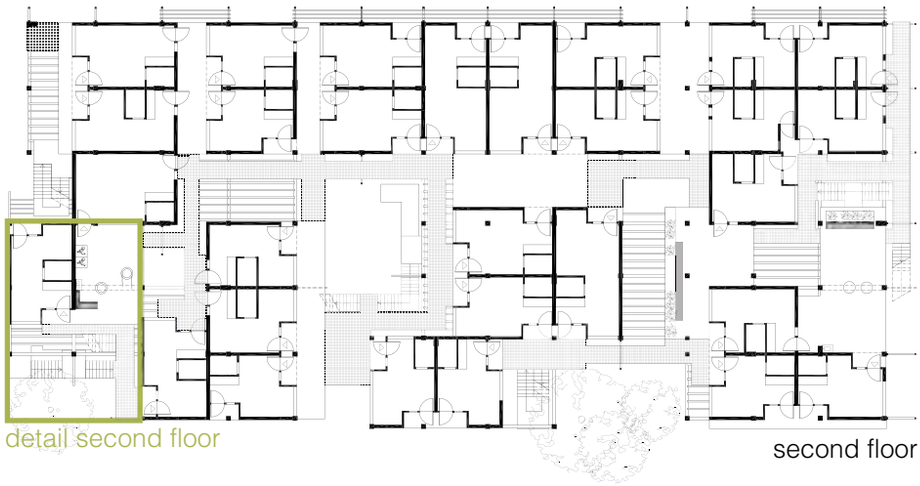


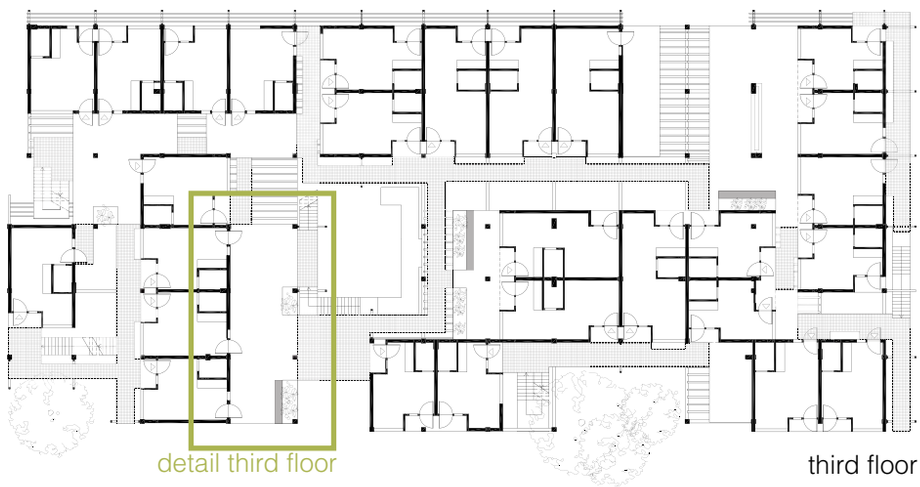
1. principal open space
2. neighborhood park
3. tricycle parking
4. main street, market
5. common water tap
6. playground

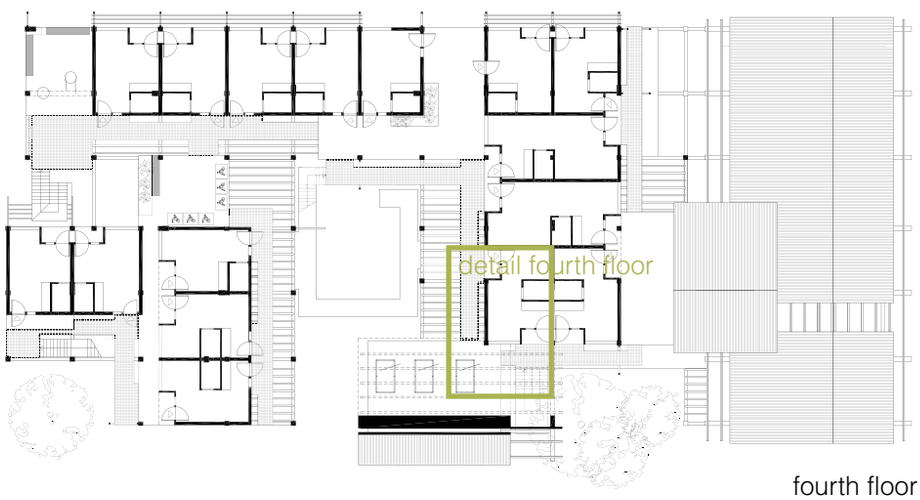
SCHEMATIC SECTIONS OVER THE USE OF SPACE 1:800


a
b
c
d
e
e
detail ground floor
ground floor
a
b
c
d
detail first floor
first floor

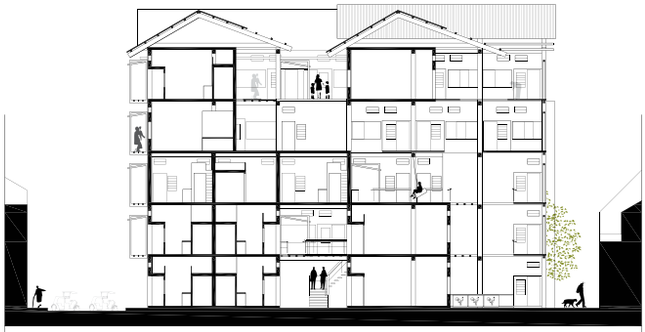
PLANS 1:500


detail second floor
second floor

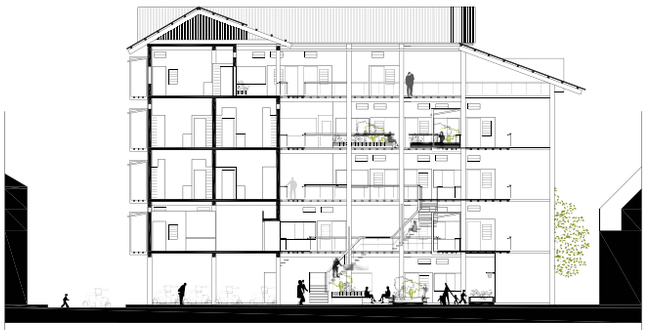

detail third floor
third floor


detail fourth floor
fourth floor

SECTIONS 1:500

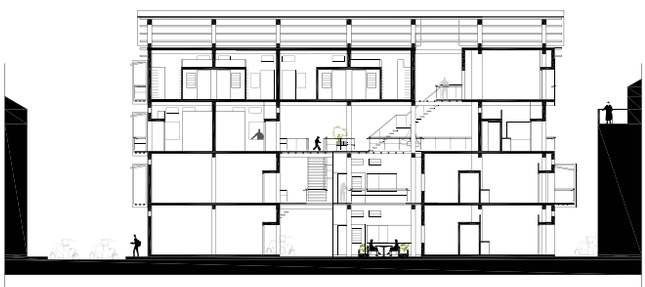


a-a

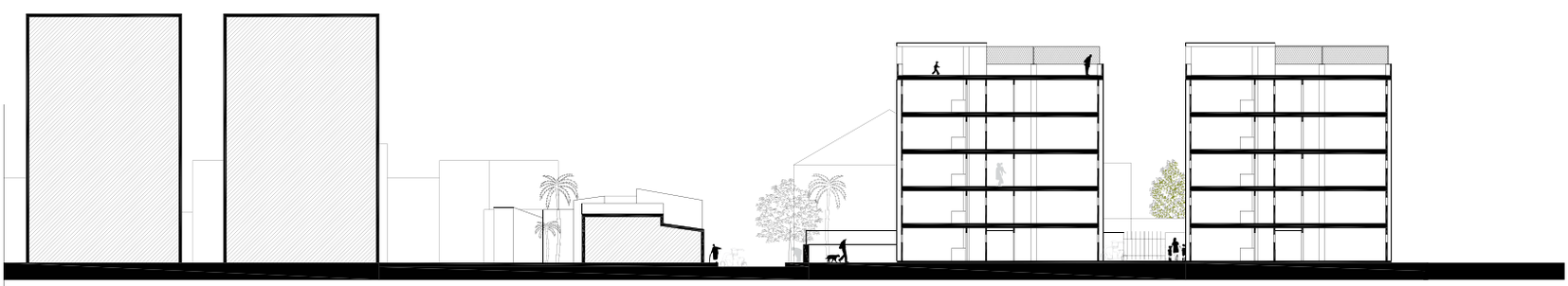


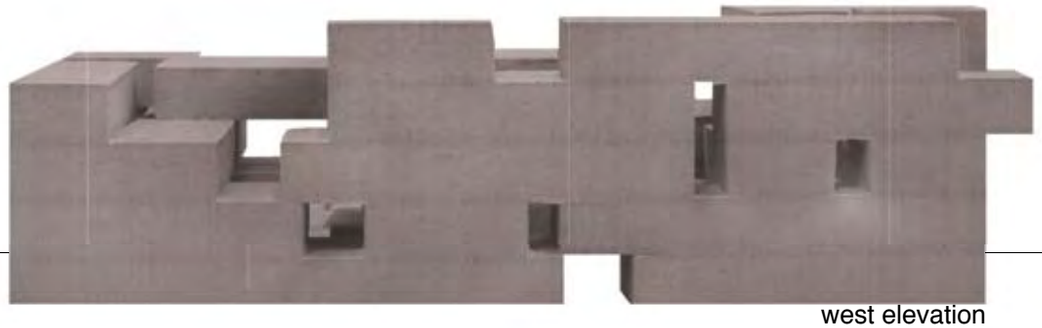
b-b

c-c



d-d





west elevation

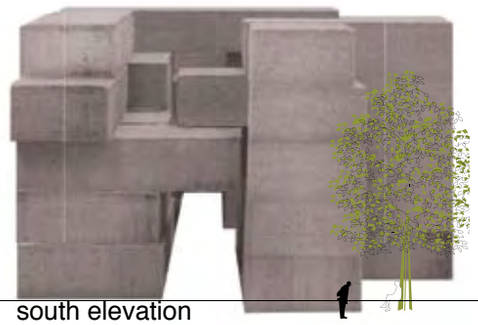
fourth floor - 16 units

third floor - 27 units

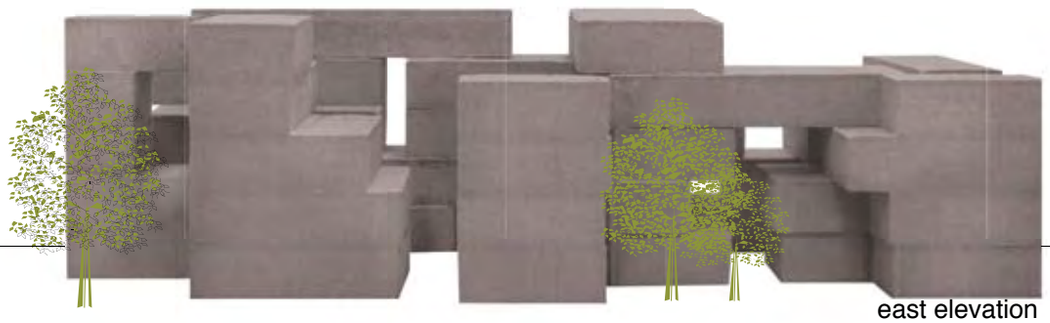
second floor - 28 units

first floor - 27 units

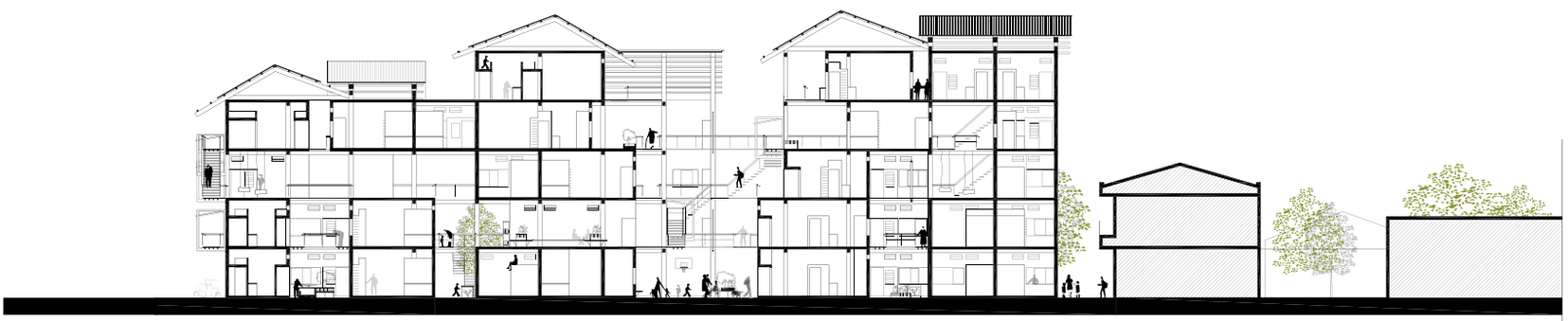
ground floor - 24 units



south elevation

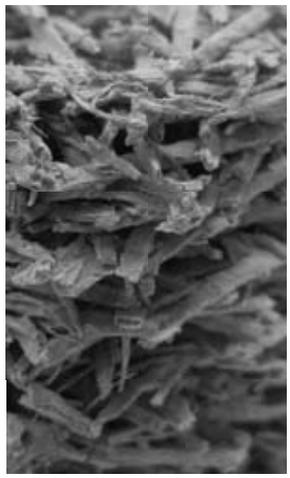


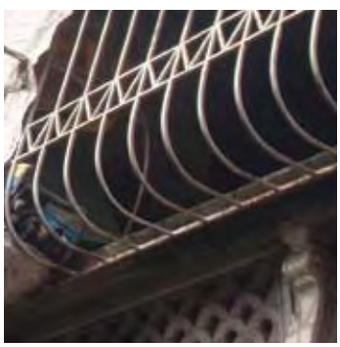
east elevation



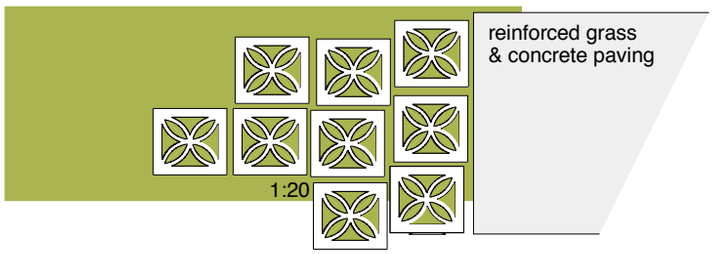
section e-e

MATERIALS





DETAILS



detail ground floor

1:200

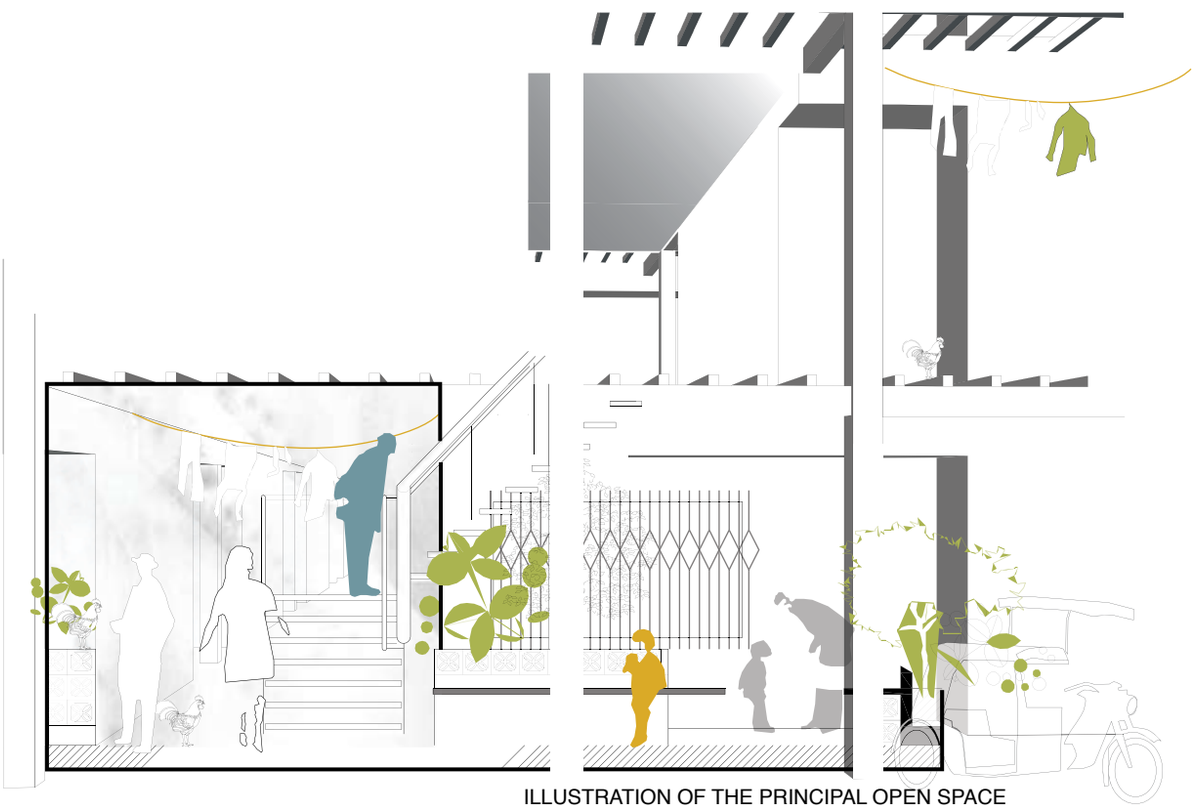
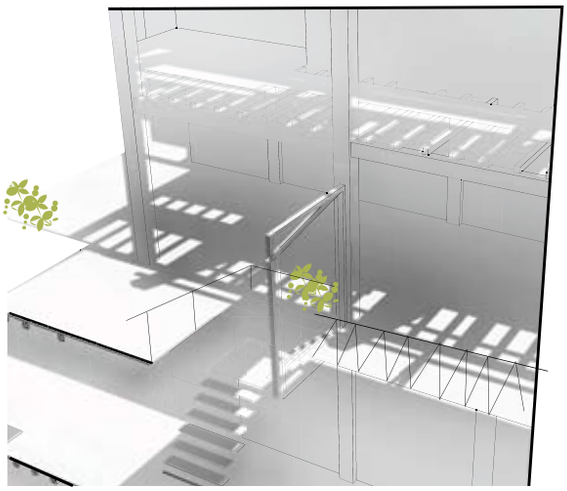
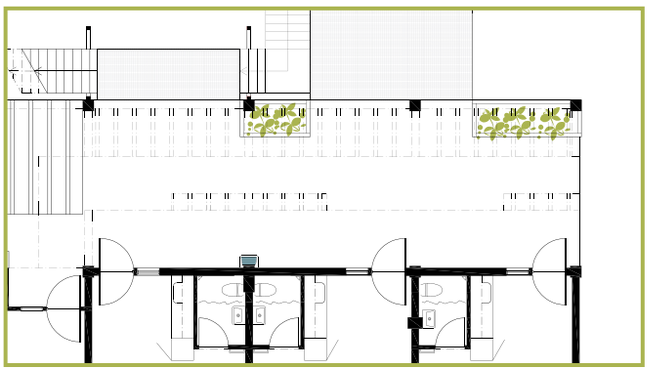


ILLUSTRATION OF THE PRINCIPAL OPEN SPACE



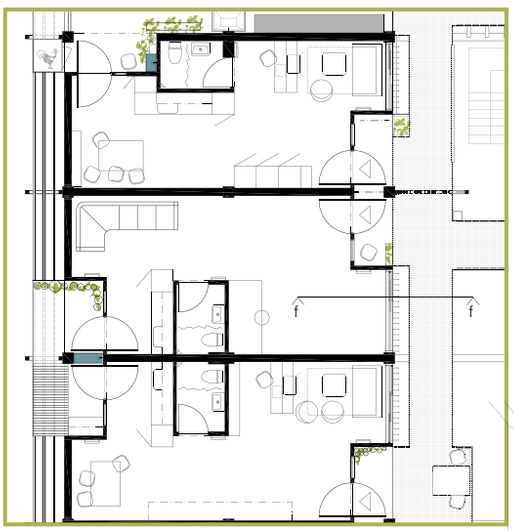
NATURALLY SHADED AREA FOR FOOD MARKET

detail third floor

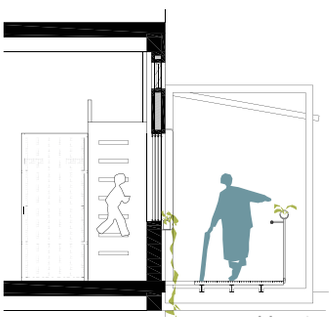


1:200

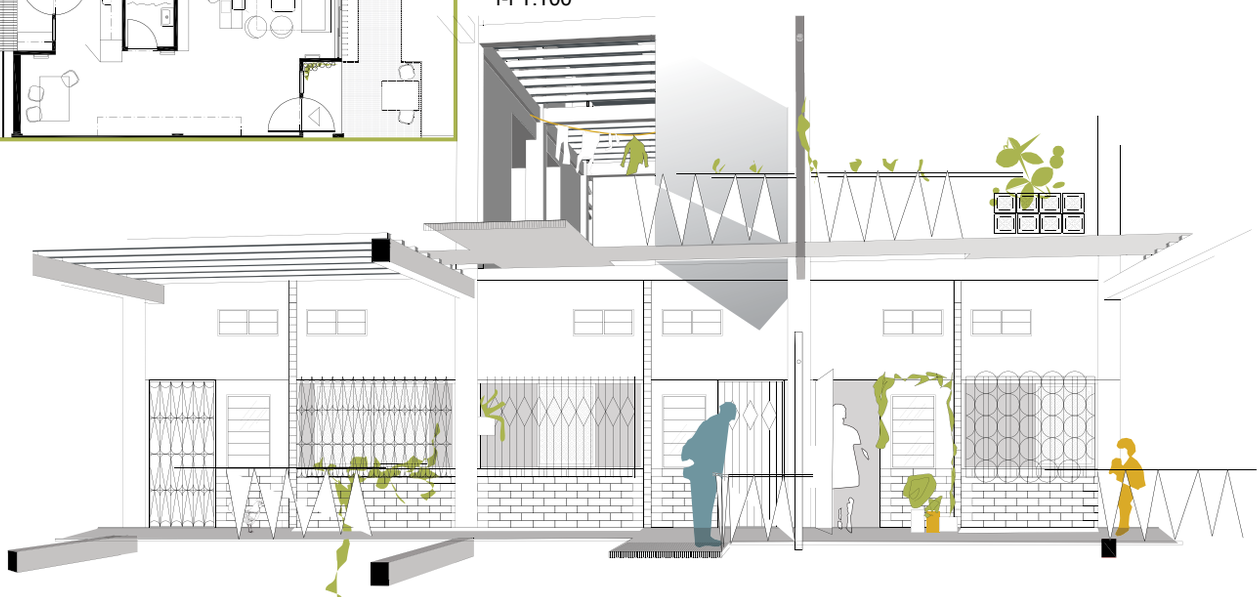
detail first floor



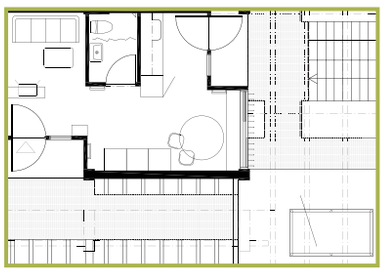
1:200



f-f 1:100

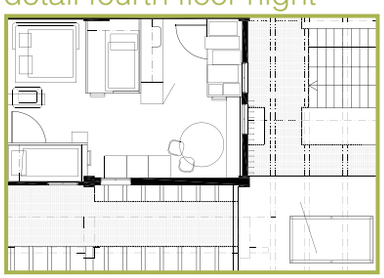


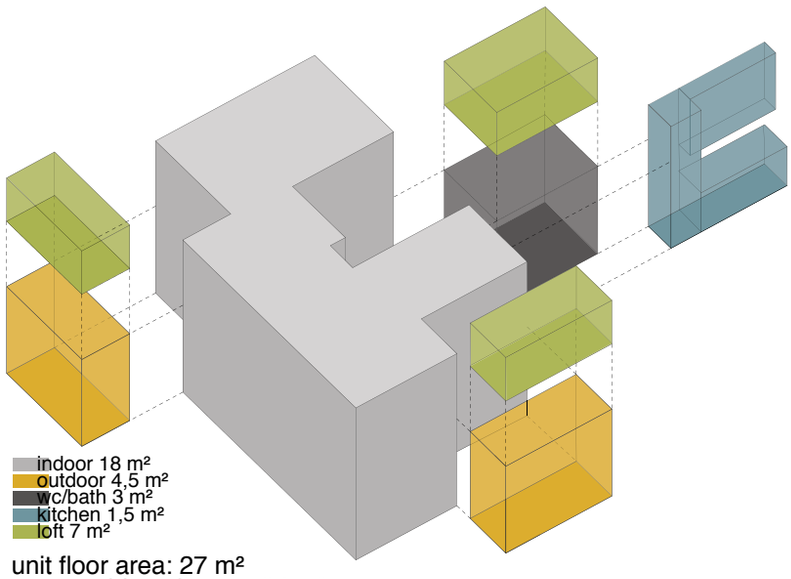
ELEVATION



detail fourth floor day

detail fourth floor night





unit floor area: 27 m²
tot. useable unit area: 34 m²

1:200 USABILITY AND FLEXIBILITY DURING THE COURSE OF THE DAY

detail second floor

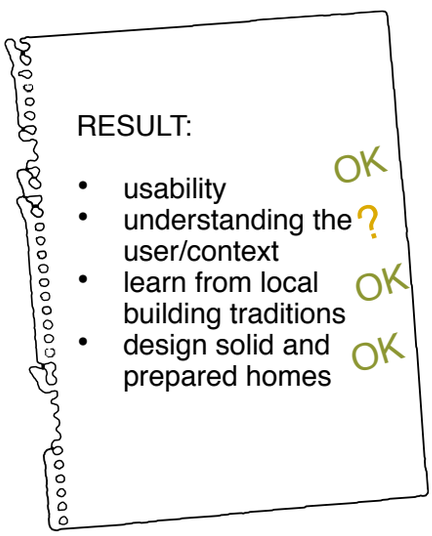
1:100

reviewing the result

It is difficult to take an objective look at your own work, but to try to review our design has been important. To see the proposed building with a critical attitude, to know if we really answered our own goals and worked according to our criteria. As well as to see if the criteria were useful.

The most important thing for us has been to try to understand the culture and the context of Quezon City. We have come a long way through our visit, and the friends we made. We have in every step of the design looked back at our observations and based decisions on how we have perceived the user. But we can obviously not be sure that is the right decision. Since the design mostly have developed after returning to Sweden we have not been able to discuss any actual suggestions with any of user representative.

It is not said that absolute user participation is needed to come up with a ‘usable’ solution. But to have some sort of user feedback is essential to completely understand what influence the outcome and how the outcome effect the user. It can be a refence group, participatory workshops or something completely different, but communication is needed and what we feel is lacking.



- consider all space available
- outdoors and indoors complement each other
- identify key places and its use

- analyze and document existing activities
- identify qualities and important attributes in need of transformation and adaption to a new setting
- always re-evaluate your conclusions and assess your ability to observe and understand

- transparency between indoor and outside
- ‘front porch’ as living room
- open structure and airy materials for improved wind movements
- built-in shade provision, generous roof overhang etc.

- solid constructions
- layout buildings accord-ing to prevailing wind directions, to reduce wind loads
- prepare the building for evacuation, both upwards and downwards


SABA
Lucky 7


Those who trust
in the Lord
for help will
find their
strength
renewed.
They will rise on
wings like eagles.
They will run &
not grow weary.
They will walk &
not grow weak.

CONCLUSION

This project have been a learning process, and given both of us so much more than just a deeper look into architectural issues. To conclude our experiences is not possible this soon, so this chapter gives a few thoughts about our work in general. And tries to answer the question on how to build quality for all.

> *"Is a house in constant change any less than a finished one? Or a noisy home any less than a silent one?"*
> Magnus Linton SR P1 2010

thoughts and insights

Along with the development of the design proposal we have discussed our role as architects, and foreigners. How do we, as outsiders, approach another culture and other conditions than we are used to without judging it according to our own norms? Is the objective to reform the 'chaos' of urban slums into 'traditional European cities'?

Slums, seen as a temporary misery, are the urban landscapes of many mega-cities. If one gets closer than judging by the surface, many communities are made up of vibrant alleys, beautiful homes and full of political will. Provided that social and political justice is created, who are we to reshape these societies? Magnus Linton argues that there is a need for a structural revolution as well as an aesthetic one when it comes to the approach of urbanization. He also asks the same question we have touched, who decides how good living is defined? *"Is a house in constant change any less than a finished one? Or a noisy home any less than a silent one?"* (SR P1 2010, Authors translation) We have to rethink what is right, why it is right and for whom it is right. Recognize and accept differences, without trying to standardize according to our life styles and preferences.

As earlier mentioned, this calls for restructuring the urban areas. But who are the ones to do it? If the basic idea of the city needs to be redefined to fit the site specific realities, are we who live in a land of medieval towns the ones to do it? Do we even have adequate knowledge to assist?

a market for knowledge If we believe the development should come from within each country or community, are we free from responsibilities and unable to take part in any way? Is there not a need for a global exchange of knowledge? Should the same mistakes be made over and over again, just for the cause of everyone having to learn from own experiences? That would just be a waste of resources, but it is important to consider what information is usable to share and how to share it. Not everything is implementable everywhere and what does not work in one place might be the solution to a problem somewhere else.

Exchange of experiences and knowledge are essential, ready-made blue-prints on the other hand, can make more harm than good. What easily overturn good intentions from international assistance is that all developing countries are considered as one when, as Jigmi L. Thinley points out, the only thing developing countries have in common is various levels of poverty. Thinley states *"…they differ in religion, culture and ideology, as well as in to what extent globalization and modernisation have influenced the societies."* (Magnusson 2002:62, Authors translation) It is rare to consider all developed countries as one, and we should not, but why then not be particular with the distinction between countries and cultures also when it comes to the developing world?

summary We discuss in the introduction the need for shelter and states that it is not the shortage of housing that is the main issue. It is rather the lack of affordable, secure and adequate solutions. We have realized along the way that the answer is neither a structural issue. Instead it is a challenge in how to legalize and find new ways to reform land management and to come up with more affordable delivery systems.

Housing is multi-sectoral. When we deal with architectural issues we need to learn how to listen to everyone. To be able to sensitively pick up and use information on hierarchies, living patterns and daily issues in all kind of communities. Analyzing what is good and what is working well rather than focusing on bad conditions will lead to a positive development. Knowledge can not be allowed to be an enforcer of a power struggle, just as no one can be allowed to be excluded from decision making affecting their lives. As regional planner Marius Stols says: *"it is important to plan with communities, not for communities"* (Roux ed. 2007:15). Architects should be 'the tool' with the ability to

visualize ideas, the ideas themselves should come from listening to the users and analyzing the actual context.

It seems like one always seek for one correct answer, but there is no such thing. That become obvious when asking questions like ‘is there a way to create quality for all’? One way can not possibly fulfill the wishes of everyone. But surely, a physical environment can encourage and generate qualitative aspects that everyone can benefit from. It is impossible to say that ‘this is quality’, because quality is defined by the user. If a building or environment fulfill and meet the required needs and respond to cultural lifestyles, quality can hopefully be found. *“Qualities in a city or a building are the things that encourage our imagination”*, states Jörgen Andreasen, retired associate professor of Architecture Royal Academy of Art in Copenhagen. By defining quality in such general terms, it is possible to ‘create quality homes for all’. The key is to see to required needs and leave room for individuality and change. The heavy work lies in getting to know the user and the neighborhood context, there is no universal way to create quality for all, no single product that will solve the equation.

Another term that have recurred throughout this report is ‘adequate’. That is, as well as ‘quality’, a term free for interpretation. What is adequate also depends on many aspects, such as culture, climate and habits. *“Adequate housing means more than a roof over ones head”*. We can agree on that, but just to once again state that every situation is unique. That has to be the starting point of every project.

There is no magical solution!

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course lecture within ABAN 10, Lund University
2009 12 01
Disasters are Common in my City
Talk Climate lecture series at FORM/DESIGN Center Malmö
Architect, FOJAB Arkitekter, PhD in Architecture

Sales, Angelus Maria P. 2009 10 22
Alternative Building Materials and Technologies for Social Housing
TAO Young Professionals Workshop
Architect, TAO Research and Publications Program Staff

Tomeldan, Michael V. 2009 11 19
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Part I, the Historical Context
University of the Philippines, College of Architecture
Architect and Professor at the University of the Philippines

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TAO Young Professionals Workshop
Architect and Environmental Planner, TAO Research and Publications Program Director

radio

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"column' by Linton, Magnus

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Enriquez, Salvador M. 2009 10 30
President and General Manager, HURA
Senior advisor of the Mayor of Quezon City

Ignacio, Joven 2009 11 13
Co-Founder of the NGO Green Architects Advocacy
Architect with private practice

Johansson, Erik 2010 01 14
PhD in Construction and Architecture
Civil Engineer, HDM Lund University

Modesto, Jomar 2009 10 30
Barangay Council, Barangay Escopa III

Steinberg, Florian 2009 11 12
Senior Urban Development Specialist
Transport and Urban Development Division
ADB
Architect

Valenciano, Alma T. 2009 11 17
NHA Deputy Area Management Officer for the National Capital Region
Officer-in-Charge for National Government Center Housing Project
Architect

Varona, Maria Faith 2009 11 18
Architect and Environmental Planner
TAO Research and Publications Program
Director

Vinterhav, John-Olof 2009 10 29
Land Management Specialist,
Cities Development Initiative for Asia (CDIA)
Civil Engineer

focused group discussions

HURA staff	2009 10 29
PCUP	2009 10 21
TAO-Pilipinas	2009 11 18

acronyms

ADB	Asian Development Bank
Bgy	Barangay (smallest municipal institution/ LGU in the Philippines)
CDIA	Cities Development Initiative for Asia
CMP	Community Mortgage Program
GNI	Gross National Income
HURA	Housing and Urban Renewal Authority (a Quezon City Government owned cooperation)
LGU	Local Government Unit
NGO	Non-governmental Organization
NHA	National Housing Authority
PCUP	Presidential Commission of the Urban Poor
PHP	Philippine Peso (100 PHP = 2,2 USD =17 SEK)
UDHA	Urban Development and Housing Act, also know as Republic Act No. 7279 from 1992
UP	University of the Philippines
HDM	Housing Development and Management (Department at Lund University, School of Architecture)
Sida	Swedish International Development Cooperation Agency
TAO	Technical Assistance Organization, TAO-Pilipinas
UN	United Nations