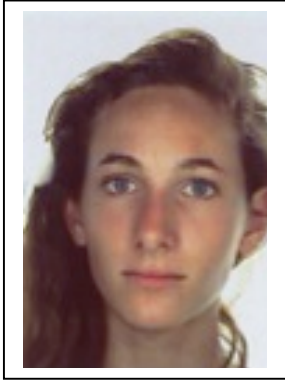# Virtous in Slums

A lesson from informality?

Callisté Mastrandréas

In this paper, throught the wide frame of macroscopic issues in slums (such as historical, political and economic issues) I would zoom in on the microscopic details as creativity, inspiration, perseverance of the citizens living in it! The aim here is to show the situation from anoter perspective, to analyse slums with qualitative criterias more than quatitative criterias. Also I wanted to relate this analyse with our cities from already developed countries and try to identifiy what can we learn from the slums. How to revive the dialogue between formal and informal systems in order to learn form each other? Who needs who?
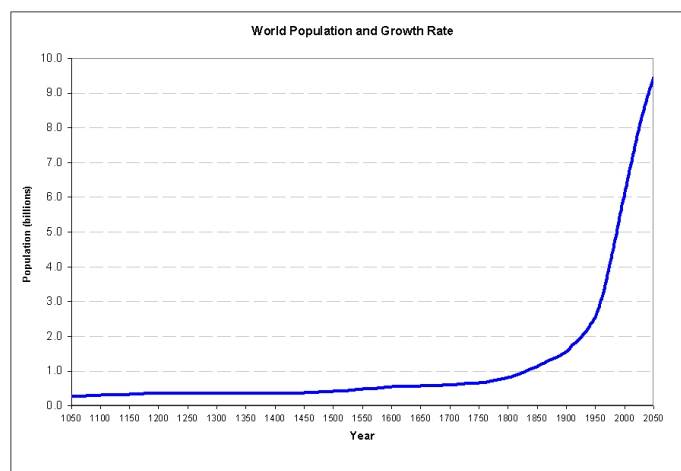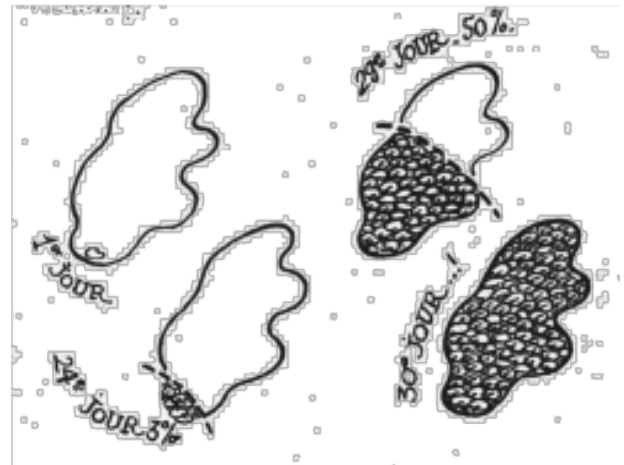
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1 Factors Shaping Urban Shelter Design

Why interest in slums?

Nowadays we are seven billion people living on earth, exploiting its resources, using its energies, producing pollution. That mean as many people who need a place to sleep, cook, wash, but also a way to move, travel, go to work and gather. That means as many different lifes and lifestyles with all the needs aspirations and dreams that come with it! In 1950 when we were only two and a half billion people living on Earth one third of the world population was living in cities and two thirds in the countryside; in 1975 we were for billion people, nowadays we are seven billion and we expect to be more than nine billion by 2030, we are having an exponential growth (Dubois, lecture 2013) and so we need to answer the requirements of more and more people!

Everything is happening quicker and faster because we already pass the 55%(cf: images before), world population is literally going to explode!

The growing slums are the result of the superfast and inequal densification we are going trough nowadays! There are around one billion slums dwellers all around the world now, they increased by 75 million during the last three years and they are expected to be more than three billions by the year 2050 so one third of the projected population will live in the slums.

Since the 23rd of May 2007 we are more people living in urban areas than in rural, and we can affirm that the global population trend is leading to 80% of people in the cities and 20% in rural areas! That is asking questions such as how are we going to produce food for everyone since farmers are moving to cities? How are we going to manage to live all together in so few surfaces? Will the planet will able to give as much energy for everyone? How can we plan a smart land management between rural and urban?

The cities in developing countries are growing according to some criteria we have measured: 10% because of changes in boundaries, 30% because of migration, 60% because of natural population growth (Astrand, lecture, 2013)

The question then is to understand why people are still moving to cities. Of course there are some practical aspects to consider such as finding jobs or offering education to children but I believe that there is more than that. The human is a gregarious species wich has the desire if it's not the necessity to live in groups beyond economic and political alibis. There is an attractive collective aspect in cities like all the services (cultural, activities) it can provide: As architects and planners we should enhance and promote it.

This little focus on the current situation and its possible future developments shows the importance of the issue of urban housing and all issues attached to it. Finding a way to provide decent places to live for all of us seems to be the main issue, and since urban areas are prefered by people, the focus of our reflexion should be on how to answer urban areas housing issue.

The challenge of slums

Slum areas represent the failure of capitalism and states, they are home for thousands of families who couldn't afford a home from the conventional market! We, architects, planners, decision makers…. were not able to answer their needs, so as the city didn't adapt to them, people had to adapt themselves to the city! Instead of avoiding the problem by ignoring it let's study it and learn from it! Slums are the evidence of the failure of our predecessors to resolve this issue. We must turn our attention to these neglected areas because since they were abandoned by the government and society they developed their own answers, we must listen to them. "When understanding the logic and virtues behind slum formation and everyday life, we will be better able to carry out more sustainable neighbourhood interventions. Professionals working in urban planning need to develop tools to bridge the gap between formal and informal cities." (Rasmussen, The power of informal settlements 2013)

The reflection here is about how people live, how do they use the space, what experiences do they have what are their behaviour, opinions and beliefs, their feelings. It's a more human related study which tends to swich the pejorative association accorded to these words such as slums, shanty-town….

Defining what's a slum area is not easy, and it requires time to agree and define this notion. According to UN- Habitat "A slum is a settlement made up of households that have one or more of the following five criteria : no access to potable water, no access to hygienic sanitation facilities, insufficient living area per person (more than three people sharing the same room), poor structural quality and no durability of dwellings and no security of tenure." This definition is not enough for me because it define the slums as a quantifiable fact and do not understand them as a phenomena. We have to keep in mind that behind numbers there are people. I would rather agree with Mangin (1967) and see the slums as "a popular response to rapid urbanisation in countries that cannot or will not provide services for the increasing urban population."

Charles Stokes in 1962 defines two categories of slums, those of hope and those of despair. I will talk about those I saw during a study trip in Manila, Philippines during February 2013, and I would identify them as slums of hope. In

fact my first impression when I saw these shantitowns in Metro Manila, was the hope and the joy which was express in each face every where! And I was chocked by this contrast between the poor appearance of the place they were living in and the beauty of their smile! They are having a difficult life: some kids can't even go to school because they have to look for water or food instead; there are real problems happening over there. These people should access this services we consider as basic such as tap water or electricity. They are living in unsafe places without any infrastructure, most of the time dirty and unenjoyable: it's not a decent environment to grow up in. The obvious paradox between the places these people are living in and the happiness they are communicating, made me wonder.

<p align="center">What do they have that we do not?</p>

Why do they look that happy? Is it because they have less expectation from their life, so they are satisfied with what they have, they don't expect more? Is it because they have faith, they strongly believe in something, and that gives them hope? Is it by necessity? Is it cultural (culture of cooperation)? Some might say that its because they have less aspirations: I will answer that they have more existential problems in daily life, they maybe don't have that much time to project themselves in future, they are living from hand to mouth basically. But if you interview anyone over there, they are truly hoping a better future for their children. That is why education and school is so important in these places.

It's possible to identitfy most important factors shaping urban shelter design internationally: topography, climate, culture, built heritage, density, function, economy, environment, aesthetics... I would categorized them in different themes:

- Physical context-facts (topography, climate, surroundings….)
- Sociological context (widely: political context, period in history, culture and closely: distinguish, particularities…)

Physically the settlements I've seen in Manila are characterized by organic patterns, labybinthine streets, narrow spaces, chaos and no separation of different transports. Often also they are situated in the periphery of cities and they are not that open to the surroundings. The density is low cause these settlements are made by single story row houses. The overhall pattern reminds me of the medieval cities of Europe. There is a dichotomy between the chaotique appearance of it and at the

same time the feeling of that this is somehow harmonious. The pattern of slums reflects the social structure of the society it hosts: It's some kind of a spatial signature! And as we can see in the study of Jean Niccolas Orhon, you can recognize from which country is the slums you are studying are in only by watching a plan from above, these places are places of memories. Then are we allowed to simply destroy them? Should we see them as memories for the future town?

You can see the situation trough two lenses: first the slums are shaped by lack of money, lack of means, lack of time and material or you can see that as a process of social reconstruction trouhg popular initiative organized around the family cell. In fact every thing is dictated by the family cell, the size and organisation of the house, the rythme of life the extension and upgrading. All of the infrastructure that is modelling and structuring our cities is here replaced by mutual help and cooperation. Already in 1967 William Mangin identified seven contributions that people in slum settlements are bringing to the city. These criteria cannot be seen on a conventional map: People are less alienated by the state they solved their own housing problems in a situation where the national government was not able to react. Also they have developed small businesses and so a capital, social life, strong sense of community, where everyone is implied and everyone can help with his own skills. Moreover they have developed a social network of relatives at different scales because often the family is spread in the all country as part of the family is staying in the countryside. They create a constant flow of finance from and towards the countryside, but also a physical flow as they are going to work downtown, so a socially and economic flow. Definitively they have managed to produce an urban social structure. That is where the strength of the slums are.

2 Design of Sustainable Shelter and Neighbourhoods

Sustainability has to meet the issue of providing decent shelter. The global energy demand increases more in developing countries than in already developed countries. We can already list the main realm of needs of these countries: Water

use, paper consumption, transport by motor vehicles,…. It's good to know that buildings are actually consuming 40% of world energy and 12% of world water and are also responsible for 40% of global pollution, we can conclude that there is an inaproppriate development and so claim for a new kind of development (Tomeldan, lecture, 2013). The energy reduction potential is huge, and we cannot build millions of housing units with the same methods as before. Slums are not disaster in terms of sustainability because people are using, re-using and recycling they are working with basic tools and do not produce that much pollution, they do not use electricity or energy, the problem comes when they are relocated. The buildings we could have seen in Manila (Smokey Montains for instance)[1] are of very bad quality, no smart urban plan is made the goal is to build as fast as possible at lowest cost.

What's a sustainable housing? According to Laura Liuke (lecture, 2013) "A house which fulfils client's needs in a good and healthy environment within its constraints now and in the future."
We need to have a more holistic approach and take different factors into consideration such as public transportation, access and walkability, urban greeneries, urban recycling, government regulations, disaster risk management and education, and adopt some long time strategies or perspectives.

We can see the slums as a huge opportunity for us, huge research studios in scale one to one, working on finding solutions to answer the density and social sustainability issue. It's a chance to have that tool, to research other ways of doing architecture. Let's see through different topics how slum dwellers respond to their needs and then establish design guidelines for sustainable shelter and neighbourhood.

Transport

The transportation system is an important issue for a good neighbourhood design. The link between the district and the surroundings, the possibilities to reach facilities, services, and entertaining areas is primordial. It's some kind of a basis, an initial frame to place the project in. In Manila the public transportation system

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[1] Smokey montains is an area in Metro Manila where the government relocated slum

is not that efficient and can't answer the demand but another system has appeared beside the conventional one: the jeepney and tricycle networks. Poor inhabitants without jobs have recycled some of the old military jeeps abandoned by the American some years ago after the second World War, and transformed them into taxi-buses. The tricycles are modified motorcycles, which look like home made sidecars that can host up to four customers and are used to do short travels in the city. It has been an income for many people who have become drivers but also mechanics and others jobs around this realm. In this example the informal network competes the formal network. In fact they complete each other in a very efficient way.

Public space

We have to understand what kind of activities already exist and so design suitable space to support them. It's important to avoid a mismatching between the design and the desires of the potential users. We have to somehow frame this flourishing creativity! In the case of Metro Manila after identifying some typical local activities (karaoke, dance, basketball, small sari-sari shops) you can respond to the real desires of the population and design more smart outdoor parks not only in term of climatic realm but also sustainable in the sense of what these spaces will be use: lets talk about social sustainability. Philippine people are really attracted to outdoor spaces, they like to be outside and hang out, the streets are as many places to gather, sit and socialise, develop a network, meet new people, have opportunities. In order to not destroy the fantastic social life they naturally created we should design public space carefully and smartly, promote these opportunities of meeting and mixing, provoke the chance. Here again they know how to use outdoor spaces and we as professional know how to design them, there is a complementarity to capitalize on.

Urban Agriculture

In our actual world there is a war going on between farmers and urban residents. Farmers think we are stealing their land and people needs to have a place to live. A better land management, and a smarter land distribution is needed, specially as we need to produce food as much as we need to provide places to live to

everyone. One of the answers to this issue is to include green in the city, to meet urban and rural. It's also time to think vertical when horizontal land is missing. When you look closer in Metro Manila slums areas, you can see some fowls, and plants in almost each unit. They already adopt urban farming by raising small animals, cultivating small gardens… they is one step before our "smart cities" from the Northern hemisphere. They have these basic ideas to increase and explore but the essence of common sense is here. Is this what we have forgotten in our race of manufacturing?

Site, Time and Seasonability

We need to rethink the importance of context. The climate around, the topography, the history of people living there, the traditions they have, we need to have a closer look at the vernacular architecture (because it already answered some problems they have experienced and prove their effectiveness), we also have to build with material found on site and not importing everything from all over the world, but also then use the skills and knowledge of local people, that's also help developing livelihood! I think that a sustainable project has to be site related to every realm, sociological and physical. Tribes, traditions, cultures and religions are not considerate enough today and the international architecture is still flourishing. I trust that Frank LIyod Wright and his theory about a more site related architecture could go even further if it is associated with John F.C. Turner thoughts and we can claim for local decisions regarding housing for a particular social group in a particular place and time.

Cost and Financing

Every project has a cost, an initial one and then the maintenance of it. It's a criterion to define and which will shape the project. Some choices have to be made, decisions to find a balance between quality and affordability. Here again the context is still an important input, to who do you address the project, who are they? You can't design the same for a Scandinavian inhabitant who is spending 200 euros per month in food and for a Philippine family who's spending less than 10 euros per week in food for the all family. The decisions should be made according to the users' needs and capacity. From the slums of Metro Manila we

could have seen thousands of units, like little villages rising from nothing without any money from the government. It means that there is also another measurement of housing activity: the financial cost but also the time invested and the human effort. These three measurements are shared between the different actors of housing process: the private sector, public sector and users. In these areas the human effort and time invested belong only to the users. It's an extreme situation but we have to consider the self-help housing approach they have made. It's still impressive to see these constructions made of trashes or recovery equipment. Self help housing (organized or not) and all the different financing strategies it includes have impact on the building construction cost, maintenance cost and the structure's life cycle cost! It could be a solution to involve the user in the construction of his own habitat due to cost but also for creating a sense of belonging and to promote sharing. I think that the two worlds of informal and formal cities are meeting here when we talk about satisfaction of needs or frustration.

3 The Role of Architects

In this wide problem, the role of architect is minimum, if we want to have a real action on it all the actors of urban shelter planning should work as a team. There should be a better awareness of politicians but also planners, architects, engineers and dwellers as well. The communication between National governments, local governments and NGO/PO… has to be improved! There is a need for strong cooperation and good teamwork support by communication among all of the urban development actors. The anticipation of problems, work on documentation is very important. In India knowledge saved lives in one of the biggest slums area in the world (Dharavi, in Mumbai) the government wanted to destroy the all sector and invite private developers to build on it instead; luckily some association stood for it and made a study to show the government all the values of this area, they figured out all the money, jobs existing in this area which was much more than the city could have provided. There is a huge economy, black market that we don't see and could be a very good reason for the politicians and investors to be interested in!

We need to educate the future professional actors of design and tell them how to do architecture in another way: run interviews, look for this local skills and material, get closer to vernacular architecture and culture… We cannot have, as now, the same education all over the word because it leads to the situation of today. Urban planners, architects, engineers, but also decision makers, are involved in that process. Politicians and governments have to be aware of these problems and solutions. All around the planet good ideas exist, there is hope, and the situation is not unsolvable. Many other ways of doing architecture exist now. One project I liked in Manila was the one made by Gawad Kalinga (which means Give and Care) association in Baseco. They are providing more than shelter, they are providing a complete environment, with access to work, education and facilities. They are following the users helping them to build and they are still there after construction; they are involved in different levels. Another organisation was working well over there. The example of TAO-Filipinas agency is also a good one. They are still in contact with the users of a housing project they did ten years ago. One famous "alternative project" is located in Caracas, Venezuela. It was made without architects. It's about an abandonned tower of offices (the construction was stopped because of economic problems) squatters came and invested in this huge building and then the higgest vertical informal city on earth appeared. Urban Think tank got interrested in this informal society in the middle of the city and made a movie about it to explain its functions, rules and world. The project won the golden Lion for best project in 2012 in Venice Biennale: Common ground.

Improving urban shelter is a priority but also learning from them and so improving our own cities. We already have some tools and concept to integrate: incremental housing, self-help housing, participatory planning, urban farming, social connection, and autonomy of users…)

In the slums of the Philippines they have this special connection we desperately want to create in our countries, the "Vivre Ensemble" this willingness of living together in harmony. I think architects and planners are more than needed today but we have to rethink our way of doing architecture.

Professionals in housing and city planning have to keep going, we are not done we have to adapt, the system in use today is obsolete. There is a need for a shift,

I'm not calling for a revolution but I would encourage to research for an architecture closer to the users needs instead of standard requirements.

The place of the architect could be to be the builder of the missing bridge between users and governments. We also have to abolish the image of the architect as a master who knows everything , there is a need for modesty. Architects do know a lot as professionals but sometimes are too selfish and proud to respect the needs and be interested in the users they are supposed to work for. But again this is not only an issue for the architect but also for a wider structure that is not answering the actual issues. Maybe we need to think in a more respectful way towards the users, as J. Turner defend in his book *Freedom to build*, architecture should not follow the standards or standards should change to be more close to the realistic situation.

There is a benefit for both in the emerging dialogue between formal and informal. The critical situation people are living in is no longer acceptable and the old system of our cities where everyone is dependent of a system is obsolete and can't continue anymore. We are living in an environment we do not control. We don't know how to fix our own house, which is our closest environment. I think, as Mangin, that seeing constantly around us a major accomplishment of our own is a source of happiness for the inhabitant of an area. It also encourages to share because then you are proud of what you have done and you are more inclined to share and talk with your neighbours. Urban farming for example or all of this small skills people are developing in slum areas, are very good to promote social links: in fact why would you give some carrots to your neighbour if you just bought them at the supermarket? There is no value expect money, but imagine that that you grew these carrots, it took you time asked for patience but then they have a completely other value that you can measure and understand, you know what you can do and what you can give. That's a basic example but it can be applied to a lot of things, clothes, furniture and houses! Nowadays the laws, standards, centralized decision making and globalisation is not allowing people to do things by themselves. The slum areas could develop this way because they were beside the formal paths, they are not alienated by the "conventional word".

But our cities are far from being negative, we have services for most of the population (transportation, tap water, electricity, education, infrastructure…) and that's exactly what is missing in the slums. That is precisely the reason why we need this discussion between formal and informal. The bridges were cut, as we did not know how to help we abandoned them, cut every contact and avoid them, or even worse we tried to eradicate them. In the slums educating your children is seen as old-age insurance for yourself. People are thinking in long time perspective but they need a better environment to develop and get all the chances they deserve. They also need to be included in the conventional system and so being recognized as citizens. This begins by regularizing the areas and giving the dwellers property! The priority for me is to legalize the land property; there is a need to recognize the weaker dwellers as part of society. Think Tank proposed a new definition of SLUM: Sustainable Living Urban Model. Information, and communication are needed to shift the approach from seeing slums as an asset and not anymore as a liability.

What if suddenly our cities disappeared? Who could survive? Who could start building a new world? Who needs whom?

Dialogue, discussion and cooperation are the main concepts to apply; I truly think that architects can take this role. There is knowledge and hope on both sides it's time to share.

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