Incremental development

Inspirations, Concepts, and the changing Role of Architects

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Source: vivirtlatelolco.blogspot.com
This number of Architectural Design describes the problems that face South American countries in the field of housing; problems made daily more acute by population increases and movements caused by "urban explosion" whose only precedent is that suffered by Europe in the second half of the nineteenth century.

John Charlewood Turner, who has prepared the number, is an English architect who has worked in this field in Peru for the past six years, employed by various government agencies. Throughout the number he puts forward the vital need for housing agencies to come to terms with popular resources and efforts if significant improvements in housing conditions are to come about. He illustrates this theme with work from Venezuela, Chile and Colombia as well as Peru, and in the concluding section makes what is probably the first formulation of an architect's approach to this problem in political, social and personal relations.

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Except where otherwise stated, all the text has been written by John Turner. All values are given in US Dollars.

**DWELLING RESOURCES IN SOUTH AMERICA**

Barraca La Tablada, Lima, Peru

Photo John Turner
Urbanisation case history in Peru

William Mangin

There have been big cities in Peru for at least five hundred years and they have grown largely through migration from the hinterland. The phenomenal population growth in Peru, together with the concentration of social, commercial and industrial activities in the capital city, has led to recent intensified migration from the provinces to Lima. It is safe to say that at least a million of Lima's two million people were born outside the city. The increase in the number of migrants to the city and the subsequent dramatic containment of many of them in slums and other shanty settlements, "barrios", has drawn considerable attention locally and abroad, and for the first time there are now Peruvians aware of the situation. The city has probably grown in the past in much the same way, but the migrants have been of a different type, and the phenomenon is not new.

The composite case-history presented below illustrates some of the issues problems associated with migration to Lima, and the process of urbanization in the tropical developing country. The case referred to as Biso and Carmen are real and their story of moving to the barrios is true.

Some of the details of their life and house construction in the barrios are based on the experience of other migrants in Lima. None of the people referred to in the text either in the photographs but the locations are those referred to in the article.

continued overleaf
Fortunate Quesne, a Quechua-speaking Indian from an hacienda in the mountains of Peru, contracted himself out to a coastal sugar plantation for a year's work in order to earn some money for a religious festival. After a year on the coast he took a wife and returned to his hacienda in the mountains with his wife and seven children, to take over the responsibilities of running the plantation along with his cousin-in-law, Atanés. He and his wife had seven children. It was necessary for him to be away from his family for seven months, leaving his family behind with little possibility of schooling, and under pressure from his father to leave and get a job. The small two-room mule driver's house was barely big enough for the parents and the seven children and the sugar company was encouraging the plantation owners to resettle their employees in the mountains, where they would be better off. Quesne's wife, who was a washerwoman, took on odd jobs to try to support her family, but her wages were meager. She and her seven children lived in the mountains for seven months while Quesne was away from home. They lived on the plantation in a small, one-room shack with a dirt floor and a thatched roof. The family slept on the floor and used a large wooden box for a table. The children had to walk to school each day, but they were never late because they started early in the morning. The family lived on a diet of rice and beans, with occasional fish and chicken. They had very little money to buy food, and they often went hungry. The family was very close and the children looked after each other. They missed Quesne when he was away, but they were proud of him for working hard to support his family. Quesne returned to his family after a year to find them healthy and happy. He was very proud of his children and they were very happy to see him again. They had grown so much in the year that they had been apart. They were very excited to see their family again and they hugged and kissed each other. They were very happy to be together again. Quesne was very happy to see his family and they were very happy to see him. They were very close and they were very happy to be together again. They were very excited to see each other. They were very happy to be together again. They were very close and they were very happy to be together again. They were very excited to see each other. They were very happy to be together again. They were very close and they were very happy to be together again. They were very excited to see each other. They were very happy to be together again. They were very close and they were very happy to be together again.
Urbanisation case history in Peru

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The police told them they would have to leave. A picture and story appeared in two papers and by the 20th of July about twenty or thirty more families had come, including some of the old residents. A few mongoloid workers, who had built brick walls around their lots. These families and a few other early arrivals, most of whom were told in the barrido in 1965, proudly refer to themselves as the original invaders and how they had extricated the occupation they faced. They were told to leave several times but no one forced them. A raid on one of the original invaders, was killed by the police in 1960 during an attempt to seize some of his property and he gained the sympathy of the people. The police then moved the government to evict and the residents cut a lot out of the hillaide and built a school.

Bias and Carmen picked a lot about fifteen by thirty metres on the gradient slope of the hill on the principal street. The lot was somewhat larger than most sections of lots, an advantage being as original as the position itself.

Bias and some friends quickly expanded the simple invasion one-room house to a three-room shore mid house and they outlined the lot with stones. He worked hard on Sundays and some nights, sometimes alone, sometimes with friends from the barrido or from outside. He soon managed to get a brick wall six-and-a-half feet high round his property.

Many of the residents of barridoes hurried to erect the walls around their lots and then take anything from one year to five or ten to finish the house. After about a year of working on the lot and making his 'pays', Bias decided to contact a 'specialist' to help him put up walls for four rooms. He paid for the materials bought by the 'specialist' and helped out on the job. When the walls were done he rented the house to his cousin's brother, who was so pleased with the house that he left his work in Lima and came to live there. He gave Bias the first pay cheque, after finishing paying for the walls. Bias made a down payment on a large, elaborate cedar door coating about $45. With the installation of the door and wooden windows they finally felt like home owners. They even talked of getting formally married.

About two years later, after a particularly damp winter during which his children were frequently sick, he decided to hire another 'specialist' to help him put on a concrete roof. He hired a neighbour who had put on other roofs and he found out that the first 'specialist' had sold him faulty cement and had also erected the walls in such a way that it would be difficult to put on a roof. It took considerable time, money and energy to rectify the mistakes and put on the roof, but when it was done it was a good job and it strongly bought to support a second floor some day.

In the barridoes most people help out with the houses of friends and neighbours against the day they will ask them to help with their second floor.

Skilled bricklayers and concreters abound in barridoes and the bulk of the construction in these places is cheaper than on contract. Much of it is done through informal mutual aid arrangements and the standard of work varies. There is considerable cheating by contractors and materials and many of the specialists hired for rolling and electrical and plumbing installations are not competent. Transport of materials is often expensive but the going price of the builder after reduced to lower prices at purchase. Bias and Carmen have electricity from a 100-watt plant and public water, like one in the city that does not. The front room where they sleep has two windows and the main bar is from cement and barmen but throughout the provincial area of Peru.

Their principal room fronts on the street and doubles as a shop which Carmen and the old residents know. Bias is a water carrier and now have five children. The saving on rent and the income from the shop make them considerably better off than before, but he is able to save his little earnings less than they used to. Having lived less than twenty minutes away, Carmen has never seen the Plaza San Martin and has never been through the central business district on the bus any few times. She has never been inside the restaurant where Bias works. She gets along with most of her neighbours and has the company and assistance of a fifteen-year-old half-brother and his two younger children. Bias and Carmen have a television set which runs on electricity bought from a private motor owner and they are helping to pay for it by charging their neighbours a small amount to watch. It also brings some business to the town.

Carmen and Bias bemoan the lack of sewage disposal, running water and regular electricity in the barridoes and they complain about the dust from the unpaved streets.

They are also critical of the ramshackle auxiliary bus which serves them, but, on the whole, they are not dissatisfied with their situation. They own a house which is adequate. Bias has steady work, their oldest children are in school, and Bias has been on the district council that runs the barrido and maintains the common areas and the streets. Since local elections are unknown in Peru the barridoes' unofficial council is very active. The council enforces a rent agreement on tenants from new applicants to settle in the barridoes and cut new lots out of the

Nightingale. They also decide on requests to sell or rent, renting in against the rules of the association. Another important function is presenting petitions and requests to various government bodies for assistance. Until 1965 barrido residents had no legal basis for their ownership of lots. Any recognition by the government took the form of assistance of some sort and was not accepted. They were not sure of the legality of the land and therefore did not want to risk the money to regularize it. They were not sure of the legality of the land and therefore did not want to risk the money to regularize it. The committees are also concerned with internal order. Barridoes are typically small places composed mainly of hard-working family groups, and so the committees deal with questions of discipline and most revolutionary left-wing politics. Barrido residents are quite sensitive about this and the committees try to screen out potential trouble makers and control these people. They also try to get as much publicity as possible for the production with debts by barridoes people.

The experience of this coup is probably happier than that of the average family but is certainly well within the "typical" range. They feel, in comparison to people like themselves and in terms of their own expectations, that they have done well. When asked what they would do if they were given $1000, they usually say that they would put it into the education of their children or the buying of property, and that they would use it to improve the living conditions of their present property and educating their children. There is some resentment of the children, and Bias is the oldest boy of the blind girl in school, and all five children are bedswayers, but they give the impression of a happy family and, although Carmen cried during several of the interviews, at the end of the interviews she spoke some Quechua with her neighbours and her husband, and has actually informed her Quechua is coming to the barridoes. Spanish is the principal language, however, and neither she nor Bias have any strong interest in their children learning Quechua.

The children themselves learn some Quechua but they speak Spanish with their peers, and in a group of children it is difficult to distinguish those of recently arrived Indian migrants from those of the most Cusco colonial heritage. There is a certain amount of ascription in the barridoes, and it is easy to see the social differences, and plane of speech. The children, however, are strikingly similar in attitude and have very little of the mountain Indian about them.
Lima barriadas today
The unaided self-help solution: a demonstration of the common people’s initiative and the potential of their resources

Pampa de Comas, the built-up area in the photograph above, is a typical barriada located in the southeast part of Lima. It is one of the largest barriadas in the city, with a population of about 100,000. It is described in detail on page 575.

Barriada integration & development
A government programme in San Martin, Lima
Freedom to Build
Dweller Control of the Housing Process
Turner, John F. C., and Robert Fichter, eds.
Chapter: Housing as a Verb, p.: 148 – 175

Housing by People
Towards Autonomy in Building Environments
“It is a black jock if we destroy houses of slum dwellers in order to house them”

Reason of failure:

- there is no will and commitment
- often not enough resources
- not enough flexibility to provide the right kind of shelter
- do not recognize the social cost of mass housing projects
- projects do not do overlap with priorities of dwellers resulting in too expensive units for the intended beneficiaries.
Minimal government-aided settlements
Valdivieso and Concepción Setor barriadas, Lima, Peru

The 1981 law designed to integrate the barriadas into the framework of society and the city, mentioned in the preceding section, had one serious defect: it was designed to deal with existing barriadas, but it did not make any provisions for new barriadas which were being established after September 1980. The law did not benefit them because it recognized as barriadas only those established before that date. The law was passed, the authorities would be unable to prevent the creation of new barriadas. In this sense, the law was a dead letter before it was ever signed, as one major barriada, Pioneros de Córdova, was founded in December 1980 and is now about to be highly developed in its outskirts. Córdova, and all over Peru, barriadas have continued to spring up as before, if even more rapidly than ever.

A secondary problem contemplated by the original law has pointed the way in which it is being followed up: a number of barriadas are, as mentioned above, slums which cannot be improved. Those have to be eradicated and their inhabitants moved elsewhere. The agency was created for this purpose. As might be expected, the inhabitants of slums or other barriadas are eager for what is available in the period when the government could afford it to offer. The original solution, therefore, was to provide an immediate improvement with the creation of schools in the barriada itself, a plot of land adjacent to the barriada, or a public square which could be used by the residents during the day and the permanent walls (built by the agency) at the bottom of the plot, and drinking water and sewerage near each one. This is a minimum, needs, pavements or electricity. This "planned slum" settlement turned out to be a series of units with the people themselves (except for the form of the neighborhood) an almost symbolic exercise of an economic, social, and technical assistance program. The basic unit is the family as a means of ensuring the family in the essential order of priority, the interventions are made within the barriada itself, through technical assistance, and their ultimate value is measured by the success and continued improvement of the agency.

This system was taken a step further when the government agency managed to centralize the addition of these areas known as Talpaqueras (open men on p. 50), a development as yet without services of any kind (though these are now finished) for 4000 units. The location was, in fact, not popular, but the authorities were persuaded to accept the idea and to give the people's own cost of further effort in order to increase the number of units. The result is, as the government adopts this system as a general policy, allowing for the necessary social and economic improvements, as well as the provision of utilities. The full set of the inhabitants now have sufficient income to pay the full cost of the services and water, sewerage, and other utilities.

If that is suggested in the conclusions on p. 50, the government's real role as the financing, the ability to do it, motivate, and control the existing houses and resources (and at the same time to create symbolic attempts to replace them), these government agencies must work with these forces, accepting existing values and positions where these coincide with the goals and definitions of the solution.

NOTE: In the case of the barriadas Valdivieso and Concepción Setor, public utilities are now being laid out and the inhabitants have started their permanent dwellings. This is partly due to pressure from international financing agencies which state that the primary hand notion that public utilities exist, at all costs, be located before building begins.
Site and services

Key concepts behind site and services policies and projects

- **Site**: Provision of Plots of land (ownership, lease tenure)
- **Service**: Minimum of essential infrastructure (water, sewage, electricity, roads)
- **Formalization of urban development**: Taking out the “squatting” of slums
Proyecto Experimental de Vivienda
Maki-Kurokawa-Kikutake

Herbert Ohl

Atelier 5

Source: Architectural Design 4/ 1970,
Wohnen / Housing

Projekt von / Project by Kikutake, Kurokawa, Maki, Zustand / condition in 1978

Zustand / Condition in 2003

Ursprünglicher Grundriss 1978 /
Original floor plan 1978

Grundriss nach Umbau 2003 /
Floor plan after the conversion in 2003

Source: ARCH+ Issue 211/212
Architecture Without Architects

A Short Introduction to Non-pedigreed Architecture

Architect: Le Corbusier
Project: Domino House, 1914
Architect: Erik Frieberger  
Project: Däckshus, Göteborg-Kallebäck, 1960

Source: google streetview
Architect: SITE, James Wines
Project: Highrise of Homes,
Travelling exhibition, 1981 - 2005

Source: siteenvirolodesign.com, ARCH+ issue 211/212
Architect: BeL Sozietät für Architektur
Project: Structure and settlers – DIY Multifamily Housing, IBA Hamburg, 2013
Source: bel.cx, Project Neubau, Arch. Bienale 2016
Torre David

Informal vertical communities

Urban-Think-Tank.
An original model of the Centro Financiero Confinanzas, 1992.

Photo: Inmuebles Magazine/Prada y Lorenz

Torre David, 2011.
Section perspective: Torre David as it stands today.

Torre David with potential retrofits.
Architect: UGO ARCHITECTURE, Hugon Kowalski
Project: let’s talk about garbage…, Mumbai, India, 2011
Architect: Elemental, Alejandro Aravena
Project: Quinta Monroy, Iquique, Chile, 2003

Source: elementalchile.cl