Housing and
Planning Research

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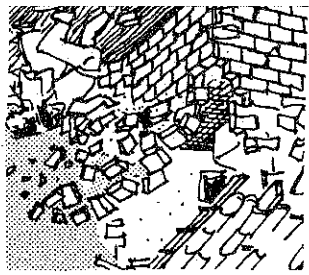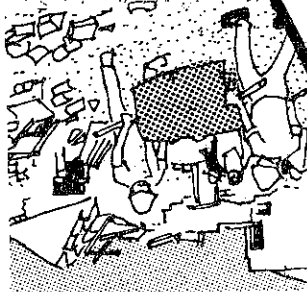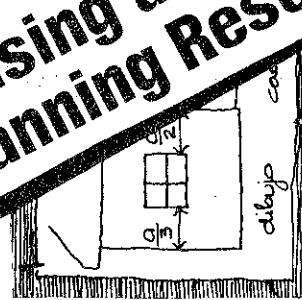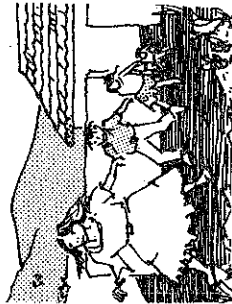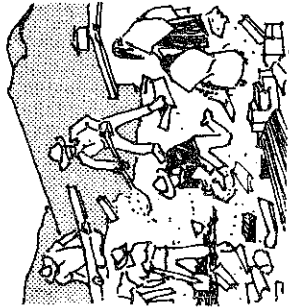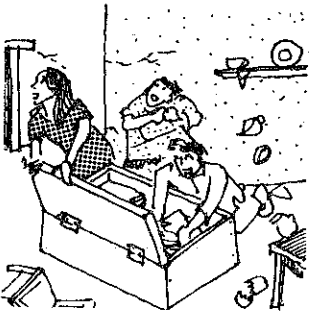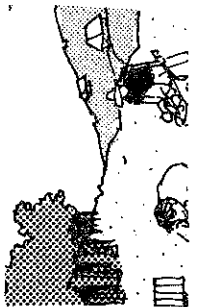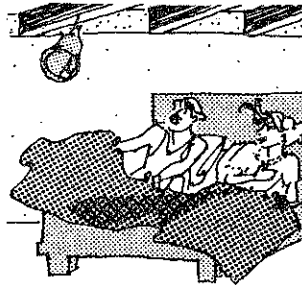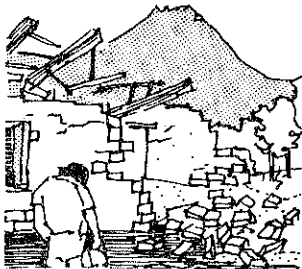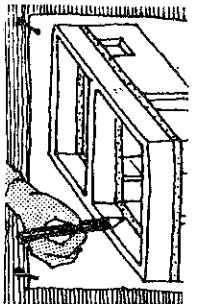
The development of Brazil's new capital city has some unintended consequences, as *Claudio Acioly* shows. Instead of the intended regional development of the region around Brazil, the city attracted migrants from the region resulting in a city's population of 1.000.000 in 1985 instead of 800.000 as has been planned. Central in this article is the discussion of housing policies and programs, which even in the situation of strong governmental control of land and land use, did not succeed in providing adequate housing for neither the low income nor the middle income groups. Until recently all attention has been drawn to the administrative sector in the city disregarding the rapid growth of the informal housing stock in other parts of the city, particularly in the satellite cities. To cope with this housing problem a more tight relationship is pleaded for between housing and income and between housing and employment. The dwellers should have better access to building materials and to credit in order to facilitate their own building activities.

In general, little information is available on demographic variations within the production factor of labor. In her article *Sule Özüekren* draws out attention to the effects of the large scale use of temporary workers in construction. The temporary use of construction workers is the result of 1) the nature of the housing market (from the standpoint of the employers the unstable demand, as a result of changing political and economical situations, which increases the risks of employing workers on a permanent basis.), 2) the nature of construction work (the building site moves from one place to the other) and 3) the nature of construction workers (as seasonal migrants they meet the demand for unskilled workers in construction). As a consequence of their temporary jobs, the workers are excluded from social security. According to the author it is necessary to increase the efficiency of inspection of building contractor's labor practices and to increase the efficiency of governmental labor placement offices.

Medhat Hassan's approach to the housing problem in Egypt is a rather pragmatic one. First of all housing should have a high political priority and should consequently be given the government's financial support. Furthermore, the government should take additional measures such as stimulating private savings, subsidizing renters, reducing housing costs and promoting the use of low-cost methods of construction. Particular attention is given to the core-house approach, which enables a family, with little additional work, to move into such a core right away and thereafter expand the house as time and funds allow. The scheme permits maximal participation of the dwellers with regard to their housing situation and is inexpensive because the units are mass-produced on site allowing considerable savings.

As China is economically developing at a higher speed, the quantitative aspects in the provision of housing were considered more important for a long time. In his housing designs *Li Suifang* shows that now the qualitative values matter too, when they take into account people's needs and preferences.

Wouter Turpijn, whose conference paper had already been reproduced in TRIALOG 18, replies to Hans Harm's comments on his article in the same issue.

We hope, this overview of problems, people's practices and government policies will stimulate the reader to use the insights in his or her work.

Wim Blauw and Léon Deben
for the ISA

Kosta Mathéy and Rita Sampat
for TRIALOG

Low Income Housing Policies in the Development of Brasilia: A Critical Review

Claudio Acioly Jr.

Zusammenfassung

Brasilia und Chandigarh sind wohl die bekanntesten neuen Hauptstädte der fünfziger Jahre, entworfen nach Prinzipien des CIAMs (International Congresses of Modern Architecture). Das Vertrauen in einen technokratischen Planungsprozeß, von Experten definiert und kontrolliert war in Brasilia allgegenwärtig. Wohnungsbaupolitik für die mittleren und niedrigen Einkommensgruppen, u.a. die Bauarbeiter und der Dienstleistungssektor (während der Bauphase von Brasilia), gab es nur in begrenztem Maße.

Die Verlagerung der Hauptstadt von Rio ins Landesinnere hat die erwartete regionale Entwicklung nicht ausgelöst — stattdessen sind Einwohner aus kleineren Städten nach Brasilia und in die Umgebung gezogen. Die zahlreichen Squatter Siedlungen und Satelliten-Städte sind ein Zeichen für die repressive Bodenpolitik und die Grundstückspreise in Brasilia mit überteuerten Wohnungen. Erst 1983 ist ein Wohnungsbauprogramm entwickelt und eine dafür zuständige Organisation gegründet worden um Sanierungsmaßnahmen, Selbsthilfe, Infrastrukturverbesserungen etc. durchzuführen. Probleme der Bodenspekulation, Aufwertungsprozesse und fehlende Baukredite sind trotzdem geblieben. Es wird vorgeschlagen:

a) die Baustandarde für Straßennetz, Wohndichte etc. sollen überarbeitet werden um kostengünstig bauen zu können;
b) Kredite für Hauskauf und Baumaterialien sollen bereitgestellt werden;
c) im Zuge des Demokratisierungsprozesses seit 1985 soll mehr Partizipation von Betroffenen und NGO's auf der lokalen Ebene unterstützt werden. (R. M-S.)

Claudio C. Acioly
Fac. Bowk. and SMIS — Social Housing Agency of the Gov. Brasilia.
Admiraal de Ruyterweg 26 E
3031 AC Rotterdam
NETHERLANDS

Historical Background

During the second half of the nineteenth century, certain concepts of city models started to flourish as rapid industrialization took place in Western Europe. These concepts included claims for the provision of adequate housing for the emerging urban labour force and a greater concern with salubrity and efficiency in the organization of the living environment. Later on, during the first half of the twentieth century, through the CIAMs-International Congresses of Modern Architecture, these ideas gained strength among architects and urban planners, and were brilliantly summarized in the famous Charter of Athens (1933), where the four basic fuctions of the city were defined: living, working, recreation and communication.

The Charter became a reference book for all prominent modern architects involved with city planning in this period. However, it was Le Corbusier who systematized the guidelines and recommendations in the form of theoretical structure and concepts for city planning, and was the person who was responsible in spreading the new trend at the international level. Although the problems of deterioration in city life, which he was concerned with, had strong socio-political components, he laid emphasis on architectural and urbanistic solutions. „His call was for a bold expression, through urbanism, of society's confidence in the future. For him, city planning, besides of being a science, was the noblest of the arts; the expression of the activity of an epoch." (Sarin, 1982: pg. 33) In his works a centralized top-to-bottom planning approach and a decision-making process in which the elite of technicians in control of the planning process is quite explicit. Then, cities and all changes in the physical environment could be under the guidance of competent experts.

This conceptual framework generated several experiences not only in the continent that it was born, but also sponsored and still sponsors a great amount of projects in urban planning and design in Developing Countries. The most well known examples are Chandigarh and Brasilia, as fully pre-planned cities implemented in the fifties in India and Brazil, repectively.

Similar to Chandigarh, the construction of the Brazilian capital evoked all sorts of bombast and pride i.e. nationalistic sentiments through which the construction of the city could be transformed into a symbolic step of the Brazilian society towards a new era of development and self-determination: „The rise of a modern nation". It was during this period that the concept of modernization and economic development of Brazil through the increase of industrialization and substitution of import policies toward the new western frontier and regional development gained acceptance among politicians, intellectuals, militaries and lay citizens.

Juscelino Kubitschek, an experienced politician, intelligently perceived the moment and was able to put forward these aspirations in his political program, and hence obtain the necessary political support for his campaign for presidency in 1955. As Brasilia was a main component in his political strategy, his election formalized the decision to change the capital from Rio de Janeiro to the hinterlands of the central west region. It was during his administration that planning activities, with a strong ideological character, gained real support and became at the same time an efficient instrument for state control and a tool to conduct the modernization project promoted and sponsored by the brazilian state. „From the fifties onwards and particularly during the Kubitschek government, the ideology of planning took shape inside the brazilian state under a process of modernization; an ideology in which the act of planning is represented as a strictly technical-scientific action, neutral, through which one can forsee and control, that is to say, to administer in a rational way." (Bicca, 1985: pg. 111)

However, Sarin precisely states that, „as practised in market economies, urban planning has consisted of the imposition of a framework of rules, presented as being neutral, and legitimized on the grounds of being in the 'public interest'.

However, within the urban Third World, characterized by extreme social and economic inequalities, it is not difficult to show that the neutrality is a myth." (Sarin, 1982: pg. 1)

In reality, this planning strategy gave priority to the increase of production and maximization of the process of development and capital accumulation, and disregarded the sharp economic differences among social groups and serious problems of distribution of wealth. In this apolitical technocrat scenario, the CIAM standpoint, as explicitly explained by Le Corbusier, found firm ground to flourish among the selective club of prominent brazilian architects and urban planners, who have exerted a great influence on governmental officials, politicians, intellectuals, artists, and in many cases on the public opinion. With consequences that can still be observed today in several plans and planning processes in different brazilian cities, and particularly in Brasilia.

The national competition of projects for Brasilia showed strong evidence of this fact. All the 26 projects presented had very strong similarities among them as they were based on CIAMs concepts. They established a comprehensive set of regulations, land use control schemes, bylaw building regulations, a strong concern with visual expressions and aesthetic concepts on city form, and a remarkable state control for the future development and consolidation of the new capital.

It was the work, known as Plano Piloto de Brasilia (see Figure I), submitted by Lucio Costa, a brazilian urbanist who had worked with Le Corbusier more than a decade before, which was awarded with the contract and implementation began immediately.

In order to house thousands of building workers, governmental employees, technical staff and so forth, a network of labour camps, as a type of housing accomodation, was established in the site by governmental agencies and building contractors responsible for different projects. Fully sponsored by the brazilian government, the new capital was officially inaugurated on the 21st of April 1960, after three years of intensive contruction, and has had an outstanding performance both in terms of development and population growth (actually with 1.700.000 inhabitants), and in terms of the problems which emerged with it.

The experience of building the new capital and the peculiarity of the urban plan and design of the city, represents a significant urban innovation and a turning point in the history of town planning in Brazil. There are also other aspects that make Brasilia a very peculiar case: the Government owns more than 60% of the land stock; it maintains strict control over land
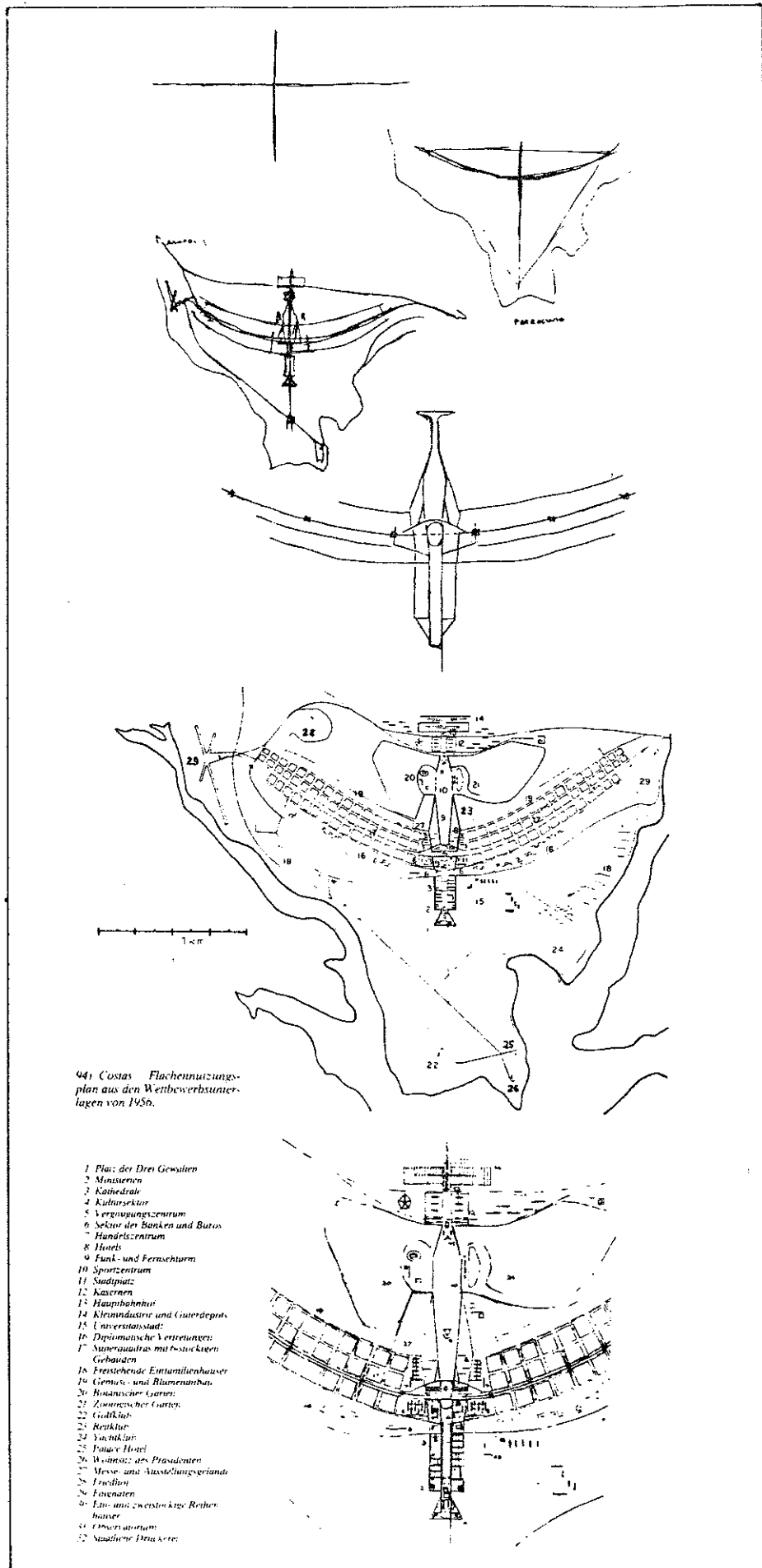

Figure I: Plano Piloto — Sketches by Lucio Costa
Source: A. Fils, Brasilia, Beton Verlag, 1988, pgs. 42, 44

use in order to avoid any type of illegal occupation and subdivision; it has had a significant participation in the development and consolidation of the city, with a sizeable production of housing addressed to the popular sector; the city has been basically a tertiary city, relying for its development on a great amount of Federal Government's subsidy, and the State has played a major role in the job market; the city governor is nominated by the president, there is no forum for political decisions (city council or similar system) and political participation of the inhabitants has been always very limited.

At the international level, Brasilia is undoubtely the most expressive example of urban design in which the principles and concepts established by the CIAMs were applied.

## Brasilia as a First Step for Regional Development: A Myth

Among several arguments that sustain the decision to transfer the capital to the hinterland of Brazil, one seems to stand out: the idea that the existence of the city would favour development at a regional scale and would create possibilities for the development of the municipalities that surround the Federal District of Brasilia.

Due to the network of communication through air, rail and roads which connects the city to the north, west, east and south regions and facilitates the access of goods and passengers, and due to the increase of productive agricultural land in the Central West Region, one might have the impression that the city has indeed fulfilled its intentions. However, the effect was exactly the opposite. The great majority of the cities located within the limits of the so-called geo-economic region, an area of influence of the city, are facing serious problems. „In this part of the territory, the majority of small size cities are undergoing decrease in their rate of urban development, except Goiania and Anapolis (which are the largest cities of the State of Goias, the state where Brasilia is located), some small urban centers located in areas of frontier expansion and those which are located just outside the limits of the Federal District." (Barbosa Ferreira, 1985: pg. 55).

On the one hand, because of a series of constraints in the housing sector in Brasilia, as explained later in this paper, the cities located next to the limits of the Federal District became an outlet solution for low income residents who did not have any access to housing accomodation in the capital. It became the only alternative, and on such a scale that according to Oliverira (1983: pg. 154), „only in the municipalities of Luziania — a city located just a few kms away from the border of the Federal District, the population reached 80.000 inhabitants with an increase of more than 600% in the last decade" (Bar-
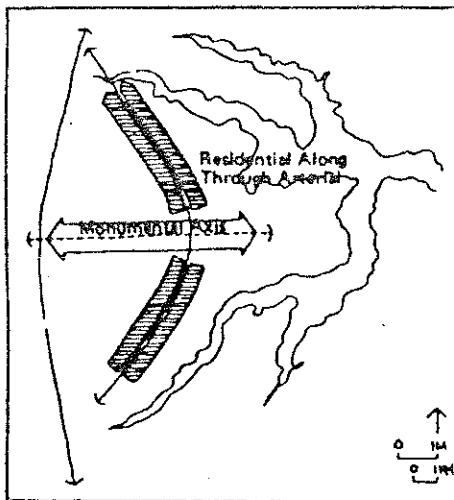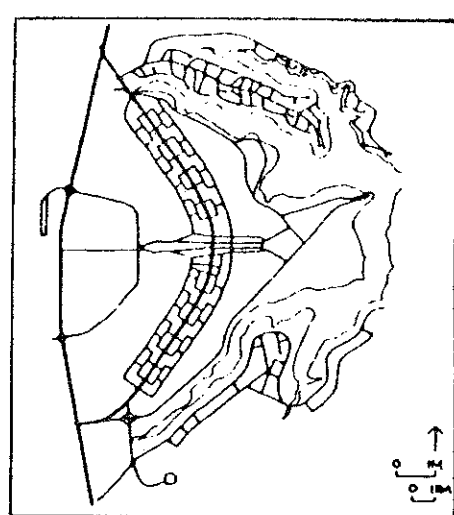

Major axes
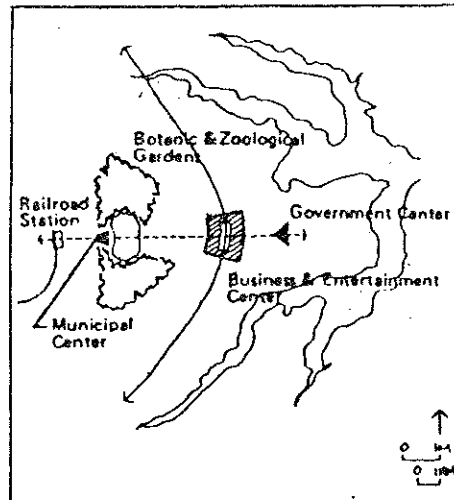
Location of major Functions
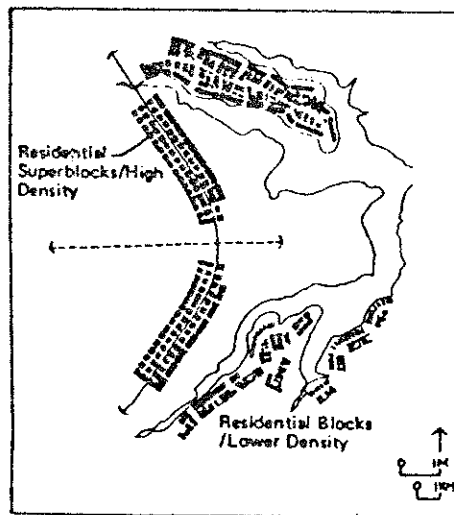
Residential sectors

Street geometry

Source: G. da Nogueira. „The Structural Plan for Brasilia", in IFHP New Towns, Worldwide, 1985.

bosa Ferreira, 1985: pg. 55). According to Paviani (1985: pg. 76), privately sponsored projects implemented in these localities could provide opportunities for housing to a population equivalent to 1.500.000 inhabitants, precisely the population of Brasilia in 1985.

On the other hand, small size cities have not been able to provide adequate infrastructure and job opportunities that could stop the influx of population that moves towards Brasilia every year. They have been unable to achieve a reasonable degree of development and cannot compete with the high standards and possibilities that the capital offers in terms of services and facilities, opportunities for income generation and employment, that continues to attract waves of migrants.

Brasilia as an Administrative City of 500.000 Inhabitants: a Dream

According to Costa's Plano Piloto, the city was expected to reach 500.000 inhabitants in a period of 25 years, maintaining

its main characteristics as a tertiary city, and seat of the national government. However, the dynamic process of consolidation showed a completely different situation 25 years later. The population reached 1.579.000 inhabitants in 1985, three times more than what was estimated by the initial plan. „The population did not want to return to their home land, despite all the measures planned in order that, at least, one third would return, another third would be occupied in local activities in the city and the rest would be employed in agricultural activities since it was a population with rural background." (Costa, 1984: pg. 21) Not only did the existing residents remain in the city, but Brasilia also followed the process of urbanization taking place in the country as a whole (By the end of the seventies, roughly 70% of the brazilian population was living in an urban area). The population growth in the capital was among the highest registered in the country, jumping from 140.165 inhab. in 1959 to 537.592 in 1970, and 1.198.142 inhab. in 1980. It is today one of the ten largest cities of Brazil.

This remarkable growth can be explained through several lines of arguments with socio-political and economic components and related to the overall context of Brazil in this period e.g. lack of an effective and continuous rural policy towards land property and production systems that could possibly slow down the pace of migration, deterioration of job market in the rural and urban areas; the world oil crisis and the increase of foreign debt which caused extreme government centralization and emphasis on export policies, military intervention, economic stagnation, lack of job creation programs on the regional scale, etc... and an overall process of capital accumulation and monopolization typical of the capitalistic development model applied in Brazil.

This paper concentrates on the local situation of Brasilia, (not that the national context is not relevant enough or does not exert a great deal of influence on the development of the city) with the intention of looking at the role of public policies of the local government, particularly, low income housing policies. What attempts have been made by the government of Brasilia to cope with the emergence of a serious housing problem in a city that, from the planning point of view, had at its disposal one of the most ideal set ups: an immense land stock, a considerable amount of financial resources, a very fresh institutional framework with recently created public agencies? This paper highlights the development of Brasilia from the point of view of housing policies, and looks at the different strategies carried out by local authorities in order to respond to housing demands.

In this respect, Brasilia is a typical example of the Developing World. Despite all the efforts made by the government and despite a significant state participation in housing production, these actions have not been able to cope with the increase of housing demands. A demand not only present in the low income sector, living in satellite cities, labour camps and squatter settlements that remained from the construction period, but also in the middle income sector. This sector already faces serious difficulties to find housing accomodation in the highly developed Plano Piloto.

This paper argues that the existing critical housing problem in Brasilia, and a constrained housing sector is, to a great deal, related to the incapability of the public sector to design more appropriate policies and programs which could give opportunities for decentralization of planning and more independence for the actors involved.

The Emergence of Squatter Settlements: Early Conflicts with Planning

The existence of low income settlements (labour camps — acampamentos and

squatter settlements — invasoes) within the urban framework of the new capital was not accepted by the authorities and planning team. Several of these settlements were bulldozed off and residents evicted to recently created satellite cities before the inauguration of the city. Even though these towns were planned for the future, only after the Plano Piloto had been fully occupied, political decisions taken by the government, sustained efficiently by technical experts, seemed to have laid the basis for a continuous slum clearance program that would accompany the development of the city from that moment onwards. In the words of Lucio Costa, „the NOVACAP — the city urbanization company, Israel Pinheiro — project manager, and the others decided to proceed like that because there were favelas (brazilian denomination for squatter settlements) surrounding every construction site in the city which involved the families of the workers. This fact led to the creation of peripherical settlements where individual plots were provided, and to where the population could be housed in one way or another. As a consequence, these sites became cities, the so-called satellite cities that were planned to exist." (Costa, 1984: pg. 26) Before the official inauguration of the city, three satellite cities had already been planned and implemented: Taguatinga, Gama, and Sobradinho. Two old historical villages already existed and gained the status of satellite city in the following years (see Figure II).

The implementation of the first one, Taguatinga, was decided in 1958, after a site visit by President Kubitschek where he was faced with a demonstration of residents of squatter settlements. This fact marks the beginning of a long struggle of the urban poor in order to achieve their rights to stay in the city which they helped to build and consolidate. Other squatter

areas received more vehement treatment and wherever resistence occurred, a group of social workers and sometimes special police forces were put in action to convince residents to move to new sites. At the labour camps, other conflicts for better lodging, food and for respect of labour rights started to take place as well. At that moment, contradictions between the interests of the State and of the mass of workers comprising the basis of the human force employed in the construction of the city were evident. Sometimes, violence burst out with losses of human lives.

In this period, there was already an incipient popular organization that made a long resistence against eviction in Cidade Livre (Free City) possible. Despite the fact that this wooden town had been built in a provisory character, it already had all the features of a small size city: water, electricity, houses, commerce, shops, banks, hotels, a population of approximately 60.000 inhabitants, and was already surrounded by squatter settlements which kept on receiving newcomers attracted by the construction of the capital.

When the government attempted to demolish the city, resistance was organized and legalization was finally obtained in the form of federal law in 1961, with the name of Nucleo Bandeirante. It is a remarkable event because it represents the first real physical intervention of social forces in the land occupation process foreseen by the original plan. A residential area with popular characteristics in the limits of influence of Plano Piloto was imposed on planners and authorities by mechanisms over which they could not have control. However, planning strategies became sophisticated and slum clearance policies became stronger and stronger, in order to safeguard the „purism" of the Plano Piloto, and protect, at the same ti-
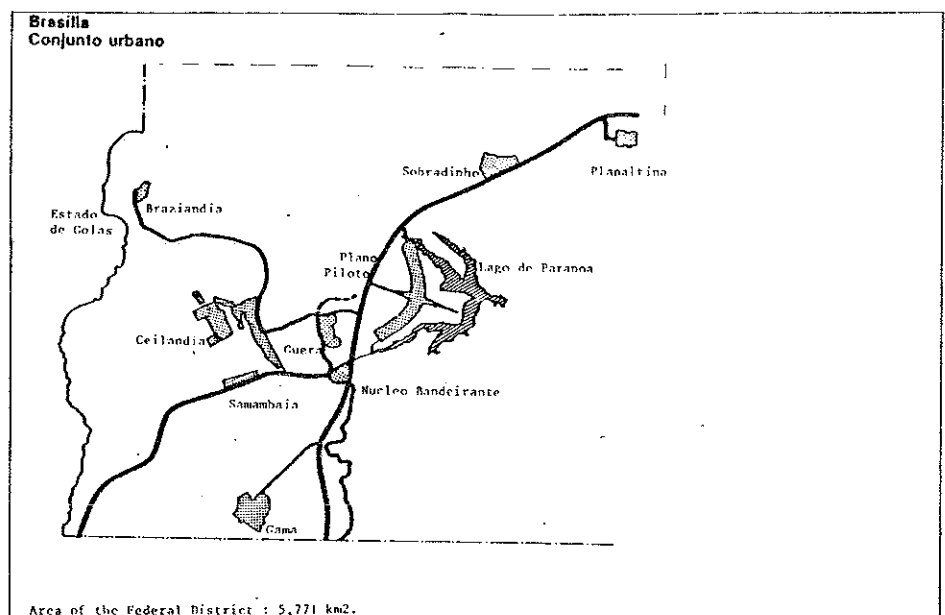

Figure II: Urban Network of Brasilia: The Federal District
Source: Published in A. Paviani (ed.): „Brasilia, ideologia e realidade", 1985

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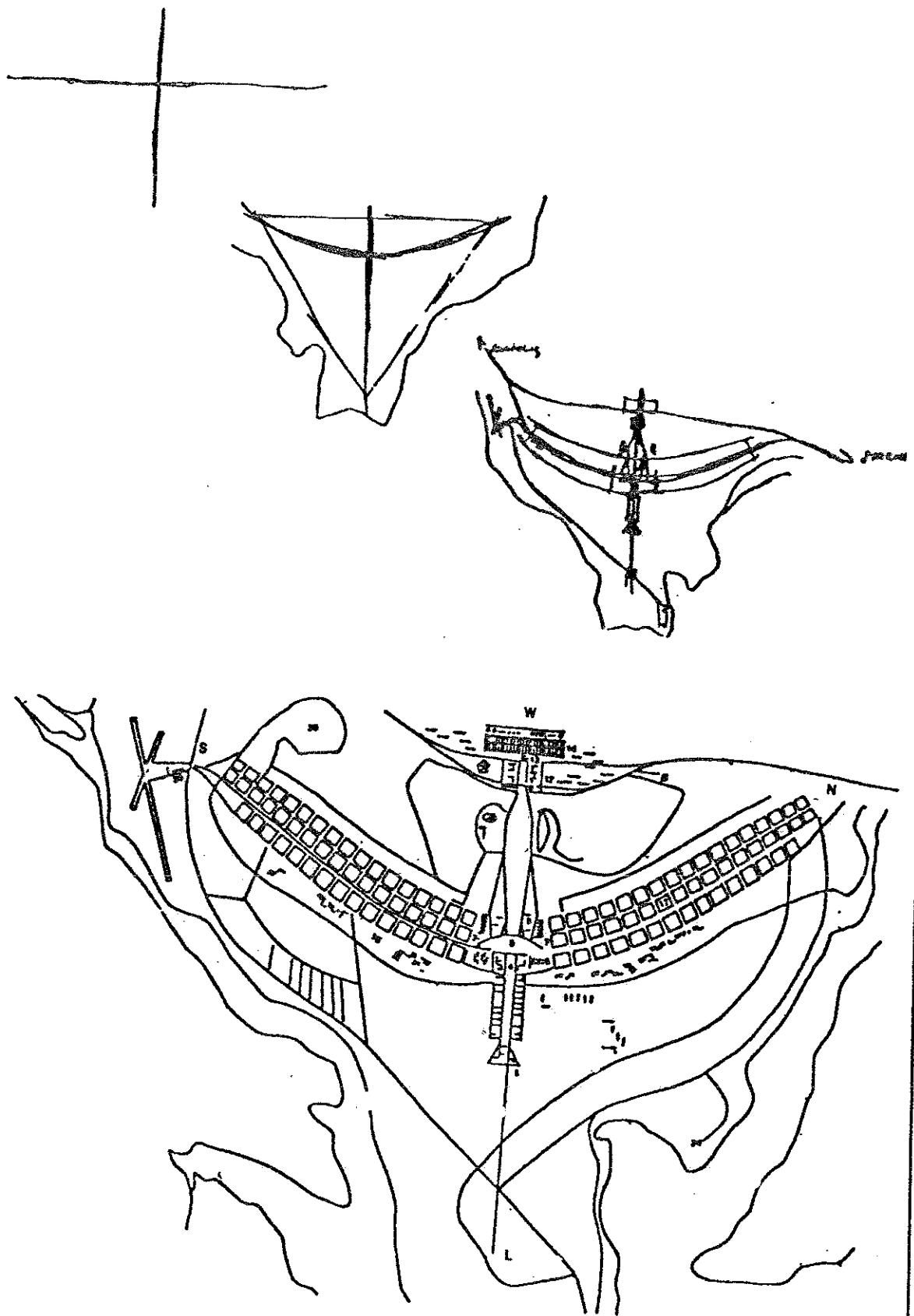Croquis do Plano Piloto de Brasília – Lúcio Costa

FIGURE I : PLANO PILOTO

Sketches of Plano Piloto by Lucio Costa (Revista Módulo, no.8, jul. 1957)

me, the Federal Government from any kind of delicate political situation that a confrontation with popular forces would bring.

Massive Evictions: Police or Policies?

In the beginning of the seventies, a slum clearance commission was formed and called CEI — Comissao de Erradicacao de Invasoes. It controlled labour camps and squatter settlements through systematic inspections and set up a series of measures for massive evictions. CEI was responsible for one of the most spectacular actions regarding low income housing that occurred in the history of the city. Residents of the gigantic squatter settlement located in the fringe of Nucleo Bandeirante (called IAPI) and from some other places, were evicted to a new satellite city created with the main purpose of housing all squatter residents of Brasilia. Located next to Taguatinga, 35 km from Plano Piloto, it was a large land division development project called after the name of the commission: Ceilandia. By 1972, 80.000 people had already been resettled.

Coincidentally, this was the period where the military regime assumed extremely radical procedures, and established strong centralization of planning and decision-making, without any possibilities for democratic participation. In Brasilia, this was more visible than in any other city. The following years demonstrated that slum clearance policies were not sufficient to solve the dilemma of housing the poor, nor was the strict vigilance and control mechanisms over „invasoes" and „acampamentos" sufficient to stop these settlements from growing.

By mid seventies, some aspects became more evident. First, the urban design applied in the Plano Piloto, rigidly regulated by building and land use bylaw enforcement mechanisms caused an absurd rise in the costs of housing, and turned the area into an exclusively high-income area and prohibitive for low income residents. The architectural and urbanistic assumptions applied to the city, preserved and reinforced by planning authorities who ruled the city in the following years, swept away any chances for informal land subdivision and densification. This is quite a common mechanism used by low income groups to have access to housing in the majority of brazilian cities, and in the Third World.

Brandao (1976: pg. 19) was a pioneer in Brasilia in this line of arguments. „On one hand, the high levels of qualification of space, specialization of functions, dimensions and urbanistic requirements for land occupation as well as the costs resulting from that, have become mechanisms to inhibit the poor population to live in the Plano Piloto, and on other hand, it has not created facilities for middle inco-

me population to have access to housing standards established in the plan." (Acioly, Andrade and Silva, 1986: pg. 6)

Indeed, during the seventies, some satellite cities e.g. Guara and Nucleo Bandeirante, started to experience the phenomenon of newcomers. Residents who could not cope with the high costs of housing in the Plano Piloto, moved towards the nearest satellite cities and established a displacement process. „It is worth to note the extreme situation in Guara where practically 100% of the existing housing stock had gone through a commercial transaction and more than 50% of the apartments were rented in 1976." (Gonzalez, 1985: pg. 95)

Second, a significant amount of government sponsored housing projects addressed to the popular sector never reached the poor despite the numbers of housing units produced by the governmental Social Housing Agency — SHIS. „By 1979, with the conclusion of P-Norte extension of Ceilandia, the number of housing units reached 65.952." (Gonzalez, 1985: pg. 83) The poorest groups were never able to meet income requirements established by the programs and therefore remained outside all projects implemented. This was not a peculiarity of Brasilia but one of the evidences of the failure of the National Popular Housing Plan — PLANHAP designed and sponsored by the Housing National Bank — BNH. According to Bolaffi (1986: pg. 24), from the total amount of resources collected by one of the (once) largest housing financial institutions in the world, only 18% was invested in the construction of houses addressed to families earning less than 5 minimum wages (5x US$ 55.30 in December 1986). „The massive production of housing, which was the basis of a policy for employment generation and for capital accumulation by the building sector, was not able to sustain itself nor was it able to solve the problem of housing the poor." (Acioly, 1987: pg. 7).

Third, the economic difficulties due to high rates of inflation, and the decrease of project/building activities in the city caused a serious decline in the building sector, and consequently restrained employment opportunities. There were indications that the densification in some „invasoes" was linked with this process.

Fourth, the lack of employment policies and appropriate housing programs, that could meet the needs of a growing low income sector, caused the appearance of a substantial informal market for housing and employment. From the point of view of the job market, the informal sector was estimated to have 150.000 workers (Paviani, 1985: pg. 76). From the point of view of housing, not only squatter settlements and labour camps were undergoing a process of densification but it was also visible that an overoccupation of residential plots in satellite cities was occuring.

The practice of subletting rooms/houses led to the emergence of a new category of low income resident: *o inquilino de fundo de lote* — tenants who occupy rooms/houses located in the backyard of plots. Some empirical estimations revealed that by the mid fifties, 50% of the population was already living in rented or sublet accomodations (Gonzalez, 1985: pg. 96).

Finally, the effort made by the government to maintain the city as an „administrative metropolis", became indeed an indirect stimulus for the development of informal mechanisms that could facilitate the access to housing and income generation by low income residents. The fear of having urban densification in the surroundings of the capital city, and the excessive care showed by the government when it had to deal with the issue of industrial activities suitable for Brasilia, gave signs that it was not really willing to tolerate shifts that could put the character and the designations of the city in danger. „In this scheme, the Plano Piloto could be preserved for some functions of the Federal Government, released from universities (students) and industries (workers) that could be replaced in other urban sites, and this would give it the characteristics of an administrative suburb of a larger conurbation, calm and pleasant, and distant from daily problems faced by the rest of the country... just like many politicians have idealized the country's national capital, as the centre of national decisions." (Cordeiro and Kohlsdorf, 1985: pg. 245) On the other hand, the development processes taking place in the satellite cities were giving evidences that, sooner or later, the functional characteristics of Brasilia would have to be revised.

A Plan and the Rise of Low Income Residents' Organizations

Important changes occured by the end of the seventies which influenced the housing sector drastically. A comprehensive master plan was designed and approved in the beginning of 78 and, for the first time, the problems of Brasilia were treated more globally. Instead of refering only to the problems of Plano Piloto, the plan was concerned with the satellite cities and with existing vacant land in the Federal District. There were also some considerations about the geo-economic region and the municipalities located next to its limits.

PEOT — Expansion and Territorial Organization of the Federal District (see Figure III) was characterized as a broad land use regulation plan which would guide urban development towards the southwest, in the direction of Gama, locating new residential areas far from the Plano Piloto, and connecting them through a network of mass transportation system. By the time of plan implementation, the urban network of Brasilia was already composed of 8 satellite cities. The plan proposed another one: Samambaia.

PEOT defended its actions with a series of technical arguments against urban settlements within the Paranoa lake basin, because the lake was already showing signs of a high degree of pollution. Although it was never very explicit, these arguments seemed to be used as political instruments to preserve Brasilia as the national political administrative capital. In this respect, with PEOT, this preservationism became much stronger inside the planning framework of the government and seemed to have guided a series of administrative and political decisions in the following years.

The land use control regulations established by PEOT ignored completely the existence of „illegal" low income settlements. The plan stimulated control mechanisms over these settlements. By doing that, it severely repressed the low income housing sector because these settlements represented a large informal housing sector and the only alternative for housing outside the governmental schemes. The growth of an informal rental sector in the satellite cities is also linked with the enforcement mechanisms of PEOT.

A political decision taken by the government reinforced this process. There was a belief that the increase of migration towards Brasilia, and consequently the growth of squatter settlements was related with the amount of government sponsored housing projects. And so, between 1978 and 1982, there was not a single housing program addressed to the popular sector with serious consequences for the coming years.

From the point of view of the population, there was a reorganizational process taking place inside several residential areas and consequently, residents associations were formed in squatter settlements and labour camps. They claimed for legalization of tenure or for implementation of basic infrastructure. Demonstrations for housing began and extremist actions such as mass invasions of vacant land took place in the beginning of the eighties. In the context of satellite cities, residents associations were formed as well, but occured as one tenants association per satellite city and by mid eighties they were organized in an Union of Tenants' Associations of Brasilia.

These movements gave indications that the policies formulated until then by the Government had been unable to meet the needs of the low income population. They had never been asked to inform their needs to planners, nor were they able to give any input in the design of such policies. The high costs for housing, the growth of illegal settlements, the densification of residential plots in satellite cities, the use of commercial areas for housing purposes in the Plano Piloto, squatting taking place in vacant land of Plano Piloto, the high costs of land, politi-

cal struggles for housing, the growth of informal jobs and housing markets, etc... demonstrated that there was an urgent need to shift governmental policies. Just outside the limits of the Federal District, particularly in the cities of Luziania and Santo Antonio Descoberto, a reflection of restrictive policies of the Government of Brasilia was also visible as well. The appearance of private housing development projects was filling the gap in terms of housing but was forcing residents to make daily trips of more than one hour, at high costs of transportation, and consequently raising the costs of housing to levels almost unbearable.

Housing the Poor: A New Approach

In 1983, a housing program named PAPE — Programa de Assentamento Populacional de Emergencia — was set up, and was addressed to families living in labour camps and squatter areas. An independent planning and implementation unit was formed to run the program and develop strategies related to low income housing. It was called GEPAFI — Grupo Executivo de Assentamento de Favelas e Invasoes. The unit carried out a socioeconomic survey and registered close to 18.000 families, and estimated population of 90.000 inhabitants living in 89 mapped settlements (GEPAFI, 1984).

A quick look at the census showed that formal governmental decisions had increased the problems in these settlements. Despite all the measures to control and avoid the growth of illegal settlements during the past four years, not only existing structures had grown in terms of area and population, but also new settlements appeared in the urban scenario. A great number of them were subjects of the seven projects of PAPE implemented in seven different satellite cities. They reached 47,96% of the target population in less than three years time.

The program set up the idea of upgrading existing settlements for the first time in the history of the city. Even though several squatter settlements were also relocated, GEPAFI always took into consideration the satellite cities where they were located, thus maintaining the existing links with services and facilities and with the places of employment of residents. Although this approach had been used long before in other cities of Brazil, and had been discussed in specialized international literature since the sixties, the progressive development approach applied by GEPAFI can be considered, for Brasilia, a very innovative way of dealing with low income housing. The centralized planning process that have ruled over the city in the past years have allowed very little space for participation of private and individual initiatives. The legacy left by CIAM inside the government machinery have facilitated the rise of a planning process dominated by planners who have

decided what is good, and not good for Brasilia, and therefore for the population. In this respect, it is not surprising to realize that the technical determinism that grew among planning authorities became a pathway for authoritarian practices carried out by the government. Constantly, residents have played the role of passive participants in urban development and, indeed, have had very little opportunity to participate in decisions, and in projects which are directly related to their lives and environment.

GEPAFI laid emphasis on self-help initiatives of residents in the solution and improvement of their housing conditions, and established a clear concept of housing as a process. Every individual household had a role to play in the process of housing improvements (GEPAFI, 1984: pg. 65). However, PAPE and its planning process can be characterized as typical top-to-bottom scheme, in which residents participation, took place only during the project implementation phase. Residents associations took advantage of this fact and were able to influence certain decisions at this level. There are some relevant changes brought by PAPE. As showed in Figure III, the localized solutions of PAPE were a clear contradiction to the urban development proposed by PEOT. This duality of the Government generated internal conflicts of interests among public agencies involved with urban development and provided an excellent opportunity for residents organizations to request individual solutions for their localities.
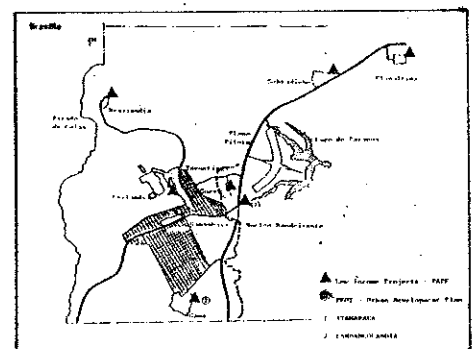

Figure III: PEOT Urban Development Plan

From the point of view of the building sector, PAPE became a great stimulus by providing work for several building contractors and consequently increasing job opportunities. It also stimulated the low income housing market through the provision of 8.329 plots at subsidized values. A household survey, which was carried out in two of PAPE projects, revealed that the market was indeed stimulated. Conducted in the first and in the last project implemented by GEPAFI, Itamaraca and Candangolandia respectively (see Figure III), the survey revealed commercial transactions involving plots in both settlements. In the case of Itamaraca, after 3 years of project implementation, for every ten families, two were newcomers, and according to the leader of the group, this

number was even higher than what the survey could reveal.

Although these transactions were illegal, news publicized by the press affirmed that the gentrification process was happening in every project of PAPE, and was caused by the entrance of middle income groups in the scenario of these settlements. In the case of Itamaraca, this was not correct because the majority of new comers were former tenants living in the satellite city of Gama, under the pressure of very high rents. The survey revealed clearly that inside the low income sector significant income differences and particularities among subgroups exist which the Government seemed to disregard when they designed the program. Although there were sufficient indications of the critical situation of the tenants e.g. demonstrations, petitions, talk, meetings, public news, etc... PAPE reached a very insignificant number of them.

It was not difficult to realize that these transactions would occur at a large scale because there was already a great demand for housing, the pressure on the existing housing stock was high enough to facilitate profitable deals, and the price of land was extremely high as a consequence of government control over the land stock (plots were being sold at prices which were between 400 and 600% above the values stipulated by the Government in its land public auctions).

Concluding Remarks

Based on the survey, the following conclusions can be made. In the case of Candangolandia, the progressive development approach made the emergence of self generated activities related to housing improvements and building construction materials possible. The process of housing improvements involved a great amount of private savings of residents used to purchase building materials and hire building contractors. However, when looking at a broad sequence of steps of improvement in the unfinished core house, only 10% of the families surveyed were able to reach the end of the sequence, and declared having had a lot of difficulties in gaining access to financial resources. There was no financial arrangement for a building materials loans offered by PAPE which could reinforce and facilitate the consolidation of the settlements. Another aspect made the situation more critical: the costs of housing expenditures (land taxation, water, electricity, transportation) in both projects already reached the borderline of 20%, without taking into account the costs of housing improvements and the monthly mortage payment. There was an agreement that the latter would stay below 10% of minimum wage, but at the time of the survey collection had not yet started. In case a cost recovery scheme would be applied on the basis of 5% annual interest in 25 years time, in Itamaraca, the total expen-

ses on housing would be above the limits commonly established by housing institutions, 25% of family income. Precisely it was this project which registered the highest rate of displacement. If the costs of projects would be calculated on the basis of real market land price, any attempt to recover the investments would bring the prices to unaffordable values for low income residents.

As the survey revealed, residents claimed for non conventional housing approaches and demanded facilities to have access to finance and material resources. Despite of being poor, residents managed to create informal mechanisms to achieve housing improvements which the State could have supported through an efficient loans framework. From the point of view of project design, the standards introduced in terms of urban layout and infrastructure networks, increased considerably the total costs of projects and consequently the amount to be charged on residents, whenever cost recovery is implemented. In this respect, there is a need to revise the building codes and land use regulations which seriously affects the life of low income residents. Concerning the expenses of families on housing, both projects gave clear evidences of disregard of the costs of improvements in the core house, fully sponsored by residents, and this was a contradiction to early statements of GEPAFI. If a participatory framework existed, perhaps the gap between formal program objectives and final realization would not exist so sharply as it did. The progressive development approach applied in Candangolandia provided opportunities for income generation and highlighted the close link between housing and income, housing and employment, which is a relevant relationship that all government sponsored programs, including PAPE, have disregarded completely. The informal rental market in the satellite cities had already stressed these relations and, together with the development of small scale industries and commercial enterprises taking place in low income residential areas, gives evidences to the present administration of Brasilia that the city can no longer be maintained as a strictly administrative paradise.

In a context of democratization taking place in the country as a whole from 1985 onwards, expectations for changes in local governmental policies grew significantly among sectors of the population. The replacement of the governor made the possibility of political negotiations and more opportunities for participation of NGOs — Non Governmental Organizations — already involved with urban problems seem possible. However, despite institutional reforms and small shifts in public policies, the return to Brasilia of Oscar Niemeyer (the architect who design the famous buildings of the city) and Lucio Costa (the designer of the city), as special advisers of the governor, brought

back the predominance of technical decisions and the hegemony of the elite of technical expertise over the problems concerning the city. Never before was the legacy of the CIAMs' recommendations so evident, and with that, the preservation of the Plano Piloto has become very strong. All attempts were made to preserve the original concept of the city at the costs of squatter regulations, and finally the approval of UNESCO to declare the plan as a world patrimony.

With politics entering the city in 1986 with the election of city representatives at the National Constitution Assembly, and with the expectations for the first elections for city council in 1988, there is a chance that urban socio-political movements gain influence on the decision-making process which consequently will make Brasilia look like any other city in Brazil, with its conflicts and political negotiations that affect the physical and socio-spatial characteristics of the living environment.

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