THE PERIPHERY AS A FRONTIER
FOR THE EXPANSION OF CAPITAL

Yvonne Mautner
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THE PÆRIPHERY AS A FRONTIER FOR THE EXPANSION OF CAPITAL

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A dissertation submitted for the degree of Doctor of Philosophy at the University College London
To Erna and Hans for their love and support.
ABSTRACT

This dissertation examines the production of urban space which accompanied the process of industrialization/urbanization of São Paulo, focusing on the production relations in construction and especially at the periphery of the city.

Many fragmented views of economic, sociological and historical literature are bound together with the results of a survey into the every day life and practices of builders who at a time suffer the influence of the broader urban process and construct the scenery of everyday life of a city. Construction proved to be an especially favourable ground for such an exercise for it takes part directly in both production of commodities and reproduction of society, leading to an understanding of the social process as a whole.
I am grateful to Michael Edwards for accepting the supervision in troublesome times, for his support, friendship and generosity through the years I have been working on this dissertation.

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* This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration.
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PREFACE
My work on housing started back in the early seventies, when I entered the University as part of a research team set up to produce a major project on the conditions of working class housing in São Paulo. Although it was never carried out for lack of funds, it brought me for the first time into direct contact with this research subject: the periphery of São Paulo, and working with the sociologists and an anthropologist of the team introduced me to methods of qualitative survey. At the time I did not realize how proper a method it was to deal with a subject which is hardly to be seen registered in official statistics.

We did have from the start an explicitly stated concern with the way in which portions of land at the periphery were produced as urban territory, in a shift away from the widely followed 'distributive approach' of the time. But the way in which those portions were produced --starting practically with the building of houses by their own occupiers on virtually bare land-- brought us definitively into contact with the peculiarities of housing provision in which not only production was predominant, but where there was hardly any 'distribution' at all.
The next step was to identify the agents involved in that production process including provision of land (land owners and real estate agencies), production and commercialization of building materials, urban by-laws, local authorities, finance, peculiarities of the labour process and finally, social relations weaving the whole production process together.

The opportunity to carry out work in this direction came through a research project put forth as a joint venture between the FAU/USP and the Institute of Technical Research -IPT- (1977/78) extending the range of the survey beyond self help to other working class housing alternatives (such as slums, construction on invaded land, squatter, and public housing). At this time we dived deeply into the way construction took place at the periphery, to realize that even if work relations were far from being fully capitalist, they were nevertheless still a mirror of the broader needs of a peculiar capitalist development process.

At the same time as we were interviewing the agents involved in housing production, starting out with information given by the occupiers themselves, we kept in touch with a research group linked to the Catholic University --PUC-- which was undertaking a field survey on the same subject with a statistical approach (URPLAN,1979). The checking of the sometimes unexpected results of our own work (where we often allowed ourselves to freely go after clues given by the people we interviewed) with their statistical data gave us a welcome opportunity to raise questions and to produce interpretations which we otherwise would hardly be allowed to do on the basis of possibly isolated facts or cases only. In this way many interpretations based on the clues given by the qualitative research were confirmed by statistical data.
Important for the development of my work was to discern a move in the direction of the commodification of housing at the periphery of São Paulo, through the increasing use of paid labour in construction, also confirmed in PUC's survey through the amount of paid labour used in 'self help'. One of the agents involved in this 'commodification process' was detected during our field work: it was the small builder, an autonomous worker, contracted either for specific tasks in house building or for the construction of whole units. His activities coexisted with the ones of big and medium building firms and with self help, producing and patching up specific portions of the urban space, according to specific building techniques and under specific labour relations. He finds room to work at the fringes of capitalist production without being directly included in a capital/wage relation in a way very similar to the independent producer.

In 1982 I started my studies at the Bartlett School of Architecture and Planning and became first acquainted with the British literature on the building industry. It was of great help to draw my attention to the making and the workings of the building industry as one of the key issues for an understanding of the production of urban space. It was a surprisingly rich experience trying to incorporate construction into the urbanization process in São Paulo. Although far from being a finished work, it led me to question why the building industry which on the one hand necessarily accompanied step by step the requirements of production and reproduction for industrial development, and on the other

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1 Mainly the BISS Proceedings and writings by Michael Ball. Further to concern with the production proper of space and thus the interest on the building industry, there is also a concern with the historical development of social relations within it. Forerunners in studies on construction proper in Brazil, such as Freire(1978) and Lefèvre(1981) based their work mainly on Ascher(1972), and no special attention was given to historical aspects of construction.
hand is as ever-present as to produce and continuously to re-mould the space of our everyday life, could be left aside in the analysis of the so called twin process of industrialization/urbanization in 'developing' countries. Since the central questions about development were generally focussed on the establishment of key industries to keep pace with international trade, the building industry --even though obviously necessary to lay down the infrastructure for the former-- was never seen as an issue on its own, and this prevented one from raising questions regarding how social relations underlying its workings unveil the binding together of production and reproduction in different stages of economic development in this country.

It was particularly an article written by Ball(1981) on the way in which capitalism came to dominate house-building in England in the form of the speculative builder which led me back to the small builder at the periphery of São Paulo. It should also be mentioned that during the time I was abroad (1981/1984) some relevant work was carried out in Brazil on the building industry which would help me to insert the small builder into a wider context of construction.

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2 Ball's analysis of the development of capitalism in housing provision focusing on the social relations involved in speculative building was of great help in identifying the different agents involved in working class housing production as part of historically specific structures of housing provision on the one hand, and on the other to my wondering if the activity of the small builder was perhaps the setting of some direction of change in housing provision at the periphery in São Paulo.

3 Pereira, Maricato, Mautner, Osaki (1987) presented a paper at the ANPUR conference with an up-to-date and commented bibliography on Brazilian literature dealing with the construction industry. Grandi's (1985) thesis, in turn, made public for the first time hitherto inaccessible statistics contained in a National Diagnosis on the Building Industry, and remains a main source of data on the building industry.
Thus arose my interest in working on a research project considering the housing production supplied by the work of the small builder especially at the periphery. Shortly after my return to Brazil --by 1985-- a broader project was elaborated by a group of lecturers of the FAU/USP, including myself, covering the re-articulation of the labour process in construction after the crisis of the early 80’s. The joint research centred on evidence pointing to changes within the labour process in the different sectors of the building industry (private, domestic, and public) set off in a strategy to overcome the crisis. Although approved for finance by the technical staff of the BNH (National Bank for Housing), the contract was not signed before BNH became extinct in 1986. The research team had to split the project into their individual contributions and seek for individual financial support.

As soon as the members of the team were left alone with the different parts of the whole project they had also to find alternative ways of inserting each part in the broader context of the construction industry as a whole.

My own first preoccupation was to insert the reports (obtained in a survey which finally came through) of the small builders on their own work strategies and work conditions into the broader context of the building industry. This kind of work was fundamental for an understanding of the high percentage of autonomous work in the building industry, of the workings of the ‘informal sector’ and its links with the fully capitalist sector in construction, and of the speed at which technical innovation penetrates building sites at the periphery.
It was also through detailed description of their life stories that I re-confirmed the role of the building industry as a gateway into wage labour in metropolitan areas, at this end of the trajectory of those workers expelled from rural areas of other regions of Brazil, as an effect of the penetration there of the very same capitalist relations of production.

The questions about the continuity in time of autonomous work in construction trying to relate the traditional capomastri of the early nineties to small builders of nowadays led me back to the birth of wage labour in construction and further to the early development of the building industry itself.

In a way, to follow the development of the building industry was to follow the different stages of economic development in Brazil. Construction was pioneering in wage relations, it spread capitalist relations throughout the country producing the infrastructure and concentrating labour for both national and international capital. State financial support was paramount for the development of the building industry in Brazil, one of the few industrial branches to first come from abroad to become nationalized later.

Without being at any time a leading sector, construction played a constant role behind the scenes of the industrialization process. The first associations of coffee capitals were made for the construction of railways, bringing the extension and import of wage labour, even before the institutional abolition of slavery in 1888. The construction work force in the State of São Paulo, made up mainly of Italian immigrants, left its mark within the Anarchist labour movement at the beginning of the century and more recently it is still responsible for the absorption of a substantial part
of internal migration. Road building, which accompanied the development of the home market, enabled the establishment of the first big national construction firms. The strength of these building firms in Brazil, a definitively home based sector of the economy, made itself felt also at the political level, to the point of having a say in the definition of investment policies.

Thus studying the development of the building industry, even if restricted largely to São Paulo only, implied a major exploratory incursion into the ways in which industrialization/urbanization took place, for which it was necessary to keep track at the same time of broader national development policies and of the internal organization of the industry itself. Indeed the building industry plays an essential role in the implementation of virtually all the changes affecting production, as well as supplying such an important component of the conditions of reproduction as housing. It also spans a wide range of social relations, from fully capitalist at one end to those not capitalist at all at the other. However, these relations interlink, and their workings strikingly reflect, in their turn, the conditions imposed by the specific form which expanded reproduction has taken in Brazil.

Within the same orientation, since the development of the building industry in Brazil is inseparable from State subsidies and broader development policies, I was led to face the role of the State both in production and reproduction, government policies favouring specific branches of industry and excluding others, and last but not least, the production of ideology.

Since periphery is both the place of the survey and to a great extent, the very subject of this study, an initial
specification of the contexts in which it will be used may be in order.

At a world scale, *periphery* is used — in contradistinction to *centre* — basically to avoid a Rostovian approach implied in the concept of *underdeveloped countries* or *developing countries*: latecomers to capitalism on the way to maturity through natural stages of growth. Indeed, opposed not only to such a naturalistic view, but also to the structuralist formulations of dependency theory, the emphasis underlying this dissertation will be on the internal contradictions of capitalist development in Brazil.

Further, *periphery* at the urban scale is in fact the subject of this dissertation. It has been considered one of the starting points of the production process of urban space in São Paulo which could be pictured in a sequence of three layers of investment. A *first* layer of individual labour for the production of use values: houses. A *second* layer of collective labour (infrastructure provided by the State) which transforms those use values into exchange values in a process whereby portions of urban space become properties, consolidated urban space, ready for the *third layer* — capital.

Finally, *periphery* is also used in the non-spatial sense of fringes of capitalist production where social relations of production are still far from being fully-capitalist, as reported by the results of the survey on the small builder.

The ambiguity raised by the multi-level usage of *periphery* and the pursuit of its moving borders (whether geographical or social) underline throughout this dissertation the specific way in which changes occur within social relations of production in peripheral countries under the progression to-
wards the extension of wage labour and the way these changes affect the production of urban space.

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This dissertation is structured in three parts:

Part I: Urbanization without construction starts with an overview of the debate on the specificity of capitalist development in Latin America, more particularly in Brazil, and the way it was brought to urban ground. Then the establishment of the building industry is presented in the historical context of economic development following broader State policies which enabled its constitution for the requirements of both production and reproduction.

Part II: The periphery as a frontier for the expansion of capital presents in a detailed way the results of a field survey which followed the work of small builders in their building sites and the agents involved in fully monetarized housing production at the periphery of São Paulo. Interviews with these builders are used to throw some additional light on statistical data on the building industry, to discuss the tenuous divide between the 'fully capitalist' and the 'informal' sector in construction, and finally to enter the daily struggle to survive in and to produce this part of the city which is known as periphery. A concluding Chapter centres on the meaning of the social concept periphery in São Paulo which unveils an historical production process of urban space at work since the end of the second World War.

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The method of the field survey used for this dissertation, realized within a society where the class divide is as deep
as in Brazil, dealt with the subtle and constant moves and strategies used by the working class to reproduce themselves within the space they manage to appropriate. The following of these moves looked like the strange task of observing the everyday struggle of another class as an almost separate object of study, reinforced by an equally deep spatial segregation which accompanies class divide.

But a confrontation between broader interpretations of the industrialization/urbanization process within capitalist development in peripheral countries and close observation of social relations supporting the production of urban space opens up an unexpected experience. In one and the same move it breaks down the apparent homogeneity conveyed by categories of dualistic conceptions of the urban--such as core/periphery, formal/informal or wage labour/production for subsistence--, and binds together the common, fragmented views of reality contained in the different fields of knowledge which divide the latter into disciplines such as economics, sociology, politics, anthropology and so on. Thus what at first might appear a partial apprehension of reality for it refers to a portion of it, when seen as one of the poles in the dialectical unity of the concrete and the abstract in the social process, where individual life stories contain also their own history, the web of social relations and the transformations of the latter in becoming, revealed itself as containing in fact elements necessary to bind together fragments of specialized research and allowing thus a means to apprehend the totality of the urban process.

The main thrust of this study may perhaps be described as an attempt at picking up fragmented views of economic, political, sociological etc. literature and binding them together with the results of a survey into the everyday life and practices of builders who suffer the influence of the broa-
der urban process and at the same time construct the scenery of the everyday life of a city. Construction proved to be an especially favourable ground for such an exercise for it takes part directly in both the production of commodities and the reproduction of society leading one to a view of the social process as a whole.
Part I

URBANIZATION WITHOUT CONSTRUCTION
PART I: URBANIZATION WITHOUT CONSTRUCTION

INTRODUCTION

... However, in fact, there is scarcely a day without Construction appearing amidst the daily news, but almost always it does so in a veiled, latent form. Only a few initiates will know it is what is being talked about. To most people Construction shows through under other labels: dwelling, employment, transport, energy, catastrophe (flood, tumbling) etc, and it is easier to conceive of a real estate crisis, a financial crisis, an energy crisis (not to mention the always present housing and urban crises) than of a "constructive" crisis proper. Still, it is there: material, real and visible, without ever taking the form of a problem as such.

Osaki, 1983:2

There are particular reasons for wondering why urbanization in Brazil has been studied with little or no attention to construction activities.¹

The building up of the whole infrastructure for a powerful industrial development during this century heavily supported by the State, was in fact a prerequisite, setting up the material basis for industrialization. Paradoxically, one of the main features of most Brazilian academic work on the production of urban space was the absence of the State and

¹ A first incursion into this subject was made by Pereira, Maricato, Mautner and Osaki in a paper presented to the 1987 Annual Meeting of ANPUR (Pereira et alii, 1987).
of the building industry from its analysis, which remained centred mainly on the reproduction of the labour force.

To understand the role of the construction sector within the generalization of the commodity form in both the early and later stages of development of capitalist relations of production in the Brazilian economy, and its absence in the reproduction process, it is necessary to consider the specificity of State intervention in expanded reproduction in peripheral countries.

Salama argues (Mathias & Salama, 1983) that State intervention in peripheral countries acts as a bridge between the levels reached by their own productive forces and by those of the centre, respectively, one which secures the insertion of those countries (the former) in wider capitalist relations. He also argues that there is a predominance of State intervention in production proper (as opposed to reproduction in central countries) and even sees the State as a direct producer or 'prime mover' of capitalist relations themselves.

The building industry as a producer of such an important item of reproduction as housing could be taken as an archetypal example of the predominance of State intervention in production: it developed into a powerful industry with strong financial support of the State, without having at any time been able to provide housing for the working class.

There is much in Salama's characterization of peripheral forms of State and society, which can be observed directly in those countries. Where however Salama's arguments are rather amiss is with regard to the underlying processes which give rise to such forms, and especially the ways in
which expanded reproduction takes place in peripheral countries\(^2\).

In what concerns us here, namely, in the case of Brazil, therefore, one has to take into account the specific way in which capitalist relations of production developed.

Capitalism may be seen as a great movement towards the generalization of the commodity form, or which is to say the same, towards the generalization of the wage relation, giving rise to the accumulation process, namely, the expansion of commodity production.

In this respect, capitalism goes through two distinct stages. In an early, predominantly extensive stage, expansion of commodity production is based mainly on the extension of capitalist relations of production (that is, wage labour) at the expense of independent producers, production for subsistence and (in the case of Brazil) slave labour. When the limits to the extension of wage labour are reached, capitalism enters its predominantly intensive stage in which the expansion of commodity production is restricted to demographic growth (where there is any) and mainly, to the increase of labour productivity\(^3\).

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\(^2\) Moraes(1980) in Mantega & Moraes(1980) criticizes Salama and collaborators in Critiques de l'Economie Politique (N.16-17 April/ September 1974) for their interpretation of the crisis of 'the new accumulation model' in three particular Latin American countries (Brazil, Argentina and Mexico) for being based at the level of realization. The creation of a middle class should be a precondition to the development of the durable goods sector, the absence of which leads to a realization crisis. Moraes in her turn defends the view that economic (policies unable to restore the falling rate of profit) and political (mass movements) determinations raised the barriers which capital was unable to transpose in its process of reproduction (p.47).

\(^3\) Predominantly extensive and intensive stages of accumulation are used here as in Deák (1989b:27), where he pays tribute to Aglietta's (1976) use of predominantly extensive and intensive regimes of accumulation for a periodization of capitalism.
Now in Brazil the imperative of accumulation is subordinated to surplus expatriation, which means that part of the surplus generated in commodity production is not being incorporated to expanded reproduction in a process called by Deák(1989a) *hindered accumulation*.

Even though surplus expatriation is antagonistic with accumulation, the imperative of increasing the expatriatable surplus imposes an expansion, albeit hindered, of the home market. According to Deák(1988),

"since the production of surplus is based on wage labour, the latter must expand at least at the rate of growth of the labour force even if wages are kept low, as they are, and this results in a corresponding expansion of the market".

What Deák does is precisely to point, through the concept of 'hindered accumulation', to the moving force behind the development of both production and society and therefore, of the forms taken on by State intervention, and the concrete conditions of the re-production of the labour force, including the level of wages, technical skills and specific forms of production and use of urban space.

On the other hand, the concepts of extensive and intensive stages of accumulation which lead to a focus upon the process of expansion of wage labour are especially useful for the study of the urban periphery because the latter is pre-

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4 Deák(1989a) calls the antagonism between surplus expatriation and accumulation the process of hindered accumulation characterized as follows: a process in which an elite society rules as opposed to bourgeois; where the commodity form is not generalized, reification of social relations is not complete, and production is ruled by the principle of (endogenously determined) surplus expatriation rather than of accumulation (which remains subordinated to the former). Some room is still left for accumulation due to the extensive stage of accumulation in which higher rates of surplus allow, even with expatriation, a portion of it to be accumulated.
cisely the locus of the moving borders of capitalist relations of production reflected on urban ground.

Coming back to the building industry and the theme of this Chapter: "urbanization without construction", we will follow the articulation between construction activities and the extension of both wage labour and the territorial frontiers within the early agro-export economy in Brazil, through the introduction of the railways in particular and the role of the building industry in general, which acts as a gateway to wage labour (and thus expansion of the labour market) in São Paulo to this day.

State intervention in direct production at the beginning of the century had an important role in the constitution of the building industry, making possible both the setting up of a suitable infrastructure for production (transport, energy, etc) and the diffusion of technical means and trained labour for the urban building industry itself. Increasing building activities stimulated in their turn the development of building materials production, which was later to have an important role in the settlement and commodification of working class housing.

After World War II, when the main alternative for working class housing became self help in São Paulo, it will be pointed out that land and building materials were gradually included into the 'subsistence basket', and therefore incorporated both into the wage and as a commodity into the home market⁵. Steady demand for building materials was certainly

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⁵ Working class settlements in Rio de Janeiro developed initially on invaded land (favelas), excluding thereby payment for land from the worker's 'subsistence basket'. There was no such need since in Rio the industry, and therefore, the industrial labour force, were nowhere nearly so developed as in São Paulo.
an important factor for the development of this industry in São Paulo.

The extensive urban sprawl of São Paulo through clandestine self-built allotments, bringing serious consequences at the administrative and political levels channelled almost all research away from the building industry and directed most of it to focus on the absence of the State in construction. Thus both construction and the State became absent from the analysis and understanding of reproduction.

It is only 15 years after the launching of BNH (1964) which organized --through a steady flow of construction finance and subsidies for housing and infrastructure-- the house building industry proper, and an accumulated mass of research on working class settlements at the periphery, that we start having a more integrated view of the production of our urban settlements.

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6 "The importance of State intervention in the production, limited financial resources, the existence of an important un-commodified sector, made it possible for the latter to have a role which is more important than the one played by the same sector in developed capitalist countries. With industrial and urban development, the reproduction of the labour force developed an other sector, commodified, which is called 'underground' or more generally, the informal sector" (Mathias & Salama, 1983:64).
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DEVELOPMENT POLICIES AND IDEOLOGY
Chapter 1: DEVELOPMENT POLICIES AND IDEOLOGY

The expansion of capitalism in Brazil takes place through the introduction of new relations into the old, and reproducing old relations within the new, a way of giving cohesion to global accumulation, in which the introduction of new relations into the old sets free a labour force which sustains urban industrial accumulation and in which the reproduction of old relations in the new preserves the accumulation potential set free exclusively for the expansion of the new.

Francisco de Oliveira, 1972

By the end of the nineteen forties analysis of economic problems in Latin America were centred largely on the theory of international trade. At the end of Word War II, international trade was being re-organized and the central countries made a bid to return to the old order. In this there was no place any more for the importation of Latin American manufactures and the industrialization of the 'Periphery' was not well accepted.

CEPAL (Economic Commission for Latin America)\(^1\) centralized the debates about the emancipation of the 'Periphery' by means of industrialization and reorganization of internatio-

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\(^1\) CEPAL was created in 1948 by the United Nations Organization, with headquarters in Santiago de Chile. It was basically constituted by Latin American economists who had the task of producing studies on the economic development of LA countries. Its leading figure became Raúl Prebisch, whose structuralist-dependentist view of international relations exerted a strong influence worldwide for decades. See his "El desarrollo economico de la America Latina y algunos de sus principales problemas", published in 1950.
nal trade. According to CEPAL studies, the organization of the labour force in central countries for better salaries and of capitalists for better prices (and profits) prevented productivity gains from being transferred to 'Peripheral' countries through a reduction of prices of imported goods. At the 'Periphery', on the contrary, low salaries reflecting abundance and low organization of the labour force kept prices down, expatriating eventual rises in productivity. Free Trade became, therefore, an ideological justification of this state of affairs, in fact, a means of ensuring continued exploitation in international trade.

Fighting the 'Theory of International Trade' and especially the 'Law of Comparative Advantages', in which free trade and specialization into the 'natural' vocation of the different countries would lead to technical progress and economic development of all members of the 'world community', CEPAL launched the basis of a new interpretation of international trade and underdevelopment. According to this interpretation, the need to generate export surpluses in the traditional items (primary products) in order to finance the import of capital goods and basic industrial inputs, allied to a deterioration in the terms of trade, was a serious hindrance to development, increasing the dependence of Latin American economies rather than advancing their 'development'.

The emphasis of CEPAL fell on external dependence and its proposals for an autonomous development were:

- A deliberate policy of industrial development, with a land reform (reforma agraria), a better allocation of productive resources, and the prevention of the 'evasion' of productivity gains. At stake was the reversion of the basic axis of the economy, hitherto directed to the outside ('para fora'), to a

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2 To exemplify the classic 'theory of international trade' (based on Ricardo), see Samuelson, Paul A. (1948) "International Trade and Equalization of Factor Prices" Economic Journal 58, June, and "International Factor-Price Equalization Once Again" Economic Journal 59, June 1949 (from Mantega, 1985:35).
development based on the industrialization for the internal market ("para dentro"). (Mantega, 1985:39).

Central for the promotion of changes necessary for a new development pattern was the role of the State, planning the economy and acting even as a direct economic agent to provide basic industrial infrastructure and channelling national resources to key activities. State intervention was seen as a means to face up, through capital accumulation within the Periphery, to commercial and financial imperialism based on exploitation through unequal exchange of agro-export goods for manufactures. For this reason CEPAL's development policies have been interpreted as nationalistic. Mantega draws attention to and specifies the nature of this nationalism, in that:

it does not oppose foreign capital, it criticizes specifically imperialism in agro-export activities.

Indeed, in CEPAL's view, its own recipe --industrialization through substitution of imports of industrialized goods-- would need an amount of investment that was not available within peripheral countries. With such rationale, CEPAL proposed the use of foreign capital, 'external savings' (poupança externa) as it was called at the time, to increase investments and national income 'at least until each country would be able to walk on its own feet'. Again in Mantega's words,

... the critique directed at commercial and financial imperialism due to the deterioration in the terms of trade dressed CEPAL up with a nationalist var-

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3 "(The role of the State) is to create the basis for capitalist accumulation to be reproduced, at the level of enterprises. This intervention has a 'planning' character (...) the State steps in to destroy the way in which accumulation naturally followed, creating and re-creating the conditions for a new accumulation pattern" (Oliveira, 1972:14).
The diffusion of CEPAL’s debate, in which many Brazilians actively took part, was centralized at the beginning of the fifties by the 'Itatiaia Group' through the publication of 'developmentist ideas' in their magazine Cadernos de Nosso Tempo between 1953 and 1956. In 1955, this group would constitute the Instituto Superior de Estudos Brasileiros - ISEB (a sort of Institute for Advanced Studies), subordinated to the Ministry of Education and Culture in Juscelino Kubitschek’s government.

The 'controversy on economic development' of the fifties, between followers of economic liberalism defending a Brazilian 'agrarian vocation' (agro-export interests), and the followers of the developmentist ideals represented by the various social groups involved with the industrialization process, polarized the debate within the Brazilian intelligentsia. The 'progressive intellectuals' and the left, even if divided between different interpretations, entered the debate resolutely on the development side. We will come back to this point below. Anyhow, the loose 'nationalism' thus formulated allowed the most latitudinarian approaches towards foreign capital:

ISEB gathered the leading progressive Brazilian intellectuals, who worked out the 'national developmentism', a slightly more nationalist version of the 'Cepalist developmentism', to be applied, curiously, by a government quite liberal with foreign capital, as Kubitschek’s government has been (Mantega, 1985:13).

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4 There were, nonetheless, restrictions to the entry of foreign capital as to the participation of foreign enterprises in railways, electric power, and other public services or areas of national security, reinforcing in Mantega’s view the attack against commercial imperialism, interested in financing the flow of the agro-export produce (Mantega, 1985:41).
The influence of CEPAL in Brazil was not restricted to the theoretical level, as the workshop of production and diffusion of the development and dependency debate, but also made itself felt directly on the development policies of the Vargas and Kubitschek governments⁵ and even later, during the period of military dictatorship⁶.

By the end of the fifties, the CEPAL-inspired strategy --industrialization under strong State intervention and directed to the home market (but limited to consumption goods) -- could be said to have succeeded in 'economic' terms, but obviously failed miserably at the social level. The bulk of the population had been kept out of the 'development' process. As Mantega put it,

... it was clear that CEPAL did not make a deeper analysis of the nature of class relations within the capitalist mode of production recommended for Latin America (Mantega 1985:42).

After a period of stagnation in the aftermath of World War II, a period of boom followed during the fifties in which a new order emerged. In fact, there was also a change in the international context, ushered in by multinational enterprises, and a new international division of labour was established. Industrialization of some peripheral countries became a goal of foreign capital⁷.

⁵ According to Mantega(1985:24) the Vargas government's plan --Plano de Reabilitação da Economia Nacional e Reaparelhamento Nacional-- based on the conclusions of the Mixed Committee Brazil/USA (1951/1953), proposed economic policies quite close to CEPAL's proposals with respect to industrialization and foreign capital. The Kubitschek government's plan --Plano de Metas-- in its turn had the direct participation of CEPAL as it was prepared by the Mixed Group BNDE/CEPAL. --BNDE (National Bank for Economic Development) had just been created in 1952, during the Vargas government, the most important nationwide institution to finance investments for industrial development.


⁷ According to Fernando Henrique Cardoso, during the conference of Punta del Este (1961) "ardent Cepalist technocrats were taken by surprise by the coincident
Imperialism which prevented industrialization in the Periphery became the impelling force of a certain type of industrial development (Cardoso, 1980:12).

Since the early fifties, at this time as a member of the economic staff of CEPAL, Celso Furtado was working on a systematic analysis of the Brazilian economy. The result of this work launched the basis to the 'Import Substitution Model' taken further by other authors during the sixties.

The precise interpretation of such developments was a key issue in what came to be known as the Debate das esquerdas --the debate of the Lefts.

A Marxist approach to an interpretation of Brazilian economic development, worked out by intellectuals linked to the Communist Party, stressed the 'semi-feudal' character of Brazilian agriculture, as being the main obstacle to the development of industrial productive forces. Imperialism was seen as the main enemy of the nation, as it was allied to the most reactionary interests within the country, the next step to socialism being therefore a bourgeois-democratic revolution. Mantega calls this approach, which did not differ (except for the emphasis on political issues) in its positions they had with the Kennedyan diplomacy. Even land and taxation reform --'reddish flags within the most consequent developmentism'-- were also waved by the Alliance for Progress ['Aliança para o Progresso'] (Cardoso, 1980:10).

Furtado (1959) Formação Econômica do Brasil and Furtado (1961) Desenvolvimento e Subdesenvolvimento. According to Mantega, Furtado and Inácio Rangel's (both leading intellectuals from the ISEB) work, the latter on the premature oligopolistic character of the Brazilian economy, were complementary for the construction of the 'Import Substitution Theory'. They virtually agreed on both the diagnosis and the development strategies for the Brazilian economy, relying on neo-classical theory and Keynes. Their work was taken later systematically further by Conceição Tavares.

This approach was largely based on Lenin's analysis on czarist Russia, in its proposal for a bourgeois-democratic revolution, formulated in 1905, and tried to apply the theses of the III International to colonial and 'backward' countries (Mantega, 1985 p:13).
basic strategies from the 'Import Substitution Model', the 'Bourgeois-Democratic Model'.

A structured attack on this 'model' came from within the Communist Party, with Caio Prado Jr’s book A Revolução Brasileira (1966). Prado centred his attack on the way in which social relations in a plantation economy were interpreted (as semi-feudal, pre-capitalist). In his view, capitalist relations were long ago introduced in Brazil through the practices of European commercial capital. There was no reason therefore for a bourgeois-democratic revolution since capitalist relations already prevailed, even if the country remained in a semi-colonial stage and submitted to imperialism.

Based on Prado’s ‘colonial capitalism’ a new interpretative trend was launched, also influenced by the North-American left\(^\text{10}\) and Gunder Frank’s direct participation in the debate\(^\text{11}\). Underdevelopment was seen as a historical product of capitalist expansion, where the economic surplus of underdeveloped countries is constantly transferred to the developed centres. This exploitative relation creates at the same time development and underdevelopment. Frank’s approach to capitalism as a system of monopolistic exchange took him away from the line of classical Marxists, for whom relations of production were primordial\(^\text{12}\). The locus of exploitation was placed at the centre, along with the causes of periphe-

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\(^{10}\) At this time the work of Paul Baran, Paul Sweezy, Leo Huberman was already known among Brazilian intellectuals (as for example, Baran & Sweezy(1966), Baran(1964) and Sweezy(1967)).

\(^{11}\) For the latter, see for example "A Agricultura Brasileira: Capitalismo e o Mito do Feudalismo", Frank(1964).

\(^{12}\) Brewer(1980):159. This book is a good review of the theories of development and underdevelopment in the English language.
general underdevelopment, leading to the conclusion that development at the periphery is impossible under capitalism.

Marini's (1969) contribution to the debate was to enquire in which way the national surplus was produced, if Brazil was already under capitalist relations of production but underdeveloped through being exploited by imperialism. He developed the theory of the 'super-exploitation of peripheral workers', the latter being exploited doubly, first by the local bourgeoisie and then by imperialism, and with no conditions to become 'consumers' within the internal market. Under these circumstances, the only way to accumulation would be an invasion of other Latin American markets (of countries still less developed than Brazil): the thesis of 'Brazilian sub-imperialism'.

This debate over the causes of underdevelopment, even if the authors did not agree on the ways to overcome it, did sketch out during the sixties a 'model' which Mantega called the 'Model of Capitalist Underdevelopment', and according to which 'backward' countries are bound to be in an eternal underdeveloped condition through being submitted to the sphere of imperialist influence, [and which also includes] a catastrophic conception of monopoly capitalism, and also the idea of labour super-exploitation, leaving only two ways out for late-comer capitalist countries, as Brazil was: socialism or fascism (Mantega, 1985:16).

Against the Capitalist Underdevelopment Model a new debate was set off, in which the viability of capitalist development in peripheral countries is recognized -- along with peculiarities of such development, namely, 'dependent' on and

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13 Mantega associates the basic concepts of the Capitalist Under-development Model (in particular Frank's and Marini's works) with Trotsky's conceptions on the same issues reproduced within the IV International for colonial and backward countries, particularly with the idea of an unequal and combined development within capitalism (Mantega, 1985:15).
'associated' to foreign capital. Dependency and development can thus go together:

There have been interpretative divergences. There was no lack of hasty analysis to show the tendency to economic stagnation due to rudimentary markets. But the main analytical trend, academically solid, was another. It tended to demonstrate that dependency and development can go together (Cardoso, 1980:12).

Authors identified with the Dependency School have foreseen the possibility of a new accumulation cycle, basing their analysis on the internal dynamics of social relations in peripheral countries. Pioneer in this analysis with emphasis on class interests and class struggle within Latin American countries was Fernando Henrique Cardoso and Enzo Faletto's Dependencia e Desenvolvimento na America Latina (1967).

The novelty within the dependency analysis was not to emphasise external dependency as demonstrated by CEPAL. It came from another angle: from the emphasis put on the structural and global relations which tie up the Periphery to the Centre. Thus, new studies about dependence pointed out that the interests of central economies (and of their ruling classes) are articulated within underdeveloped countries with the interests of the local ruling classes... The emphasis initially placed entirely on the relation between the external (imperialism) and internal (the nation) in the analysis of dependence is now mediated by class struggle. In this way the development question ceases to be an economic question and becomes a political question (Cardoso, 1980:11).

However, merely to introduce the 'political dimension' into the dependency view will not account for the social process as a whole. Indeed, to integrate class struggle within the analysis of Brazilian society requires a historical re-con-

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14 It was during the early seventies that result of these debates started to be published (Chico de Oliveira, Conceição Tevares, Paul Singer and others), emphasising the internal workings of capitalism in peripheral countries (Mantega, 1985:16).
struction of capitalist development at the Periphery. A number of studies made this task their own, some of which are mentioned in what follows.

In a seminal piece Oliveira (1972) opened an attack on the dualist view and stressed the need for a 'radical rupture' with development theory prevalent during the two decades preceding the seventies, for it

 contributed to hindering the conception of a theory of capitalism in Brazil
... and ... to diverting theoretical attention and political action from
class struggle precisely in the period in which the objective conditions of
that struggle worsened with the transformation of the urban industrial eco-


The theory of development was in this way a suitable ideology in the
so-called populist period.15

Through his critique of the Cepalist stand on the one hand, and his bringing the analysis to within the urban domain, on the other, Oliveira staked out significantly more penetrating new directions for urban studies.

The Cepalist heritage was reflected in studies at the urban level through the interpretation of the way in which the intensification of urban growth materialized in space, with particular emphasis on the role of services and the provision of working class housing in metropolitan areas.

The impossibility for industry to absorb the surplus labour force expelled from the land, and the growth of the services sector, led to theoretical approaches towards urbanization and marginality, concerned with the constitution of a 'swollen services sector' (a drain on surplus which therefore hindered accumulation) which together with specific ways of working class housing provision, among other factors, caused

15 "Populism is a chance to constitute a working class and simultaneously an industrial bourgeoisie, a period in which contradictorily there is a need to keep up with accumulation, without too apparent exploitation. Economically exploitation, politically alliance" (Oliveira,1977).
a chaotic and spatially scattered urban growth, a sort of extensive urbanization on the one hand, and on the other, a whole army of under-employed labour force.

In the beginning of the seventies, urban planning offices working on the extension of the road network were caught by surprise at the 'irregular' conditions of peripheral settlements in São Paulo: what the maps showed as empty areas turned out to be taken by already half-occupied popular allotments. Urban 'chaos' occupied the front pages of newspapers and magazines. The consequences and dis-economies of accelerated urbanization were the subject of hot debate.

It was against this background that Oliveira's "'Critique of the dualist Reason" (1972) was written. It amounted to a fully-fledged refutation of the theory of 'swollen services sector', showing that an undercapitalized services sector, in fact extension of the productive sector, constituted on the basis of 'pure labour force' (meaning very low organic composition of capital) continuously transfers a fraction of its value to the recognizably capitalist sectors. It is therefore anything but a 'consumer' of surplus. He also identified self-help, a surviving form of 'natural economy' practices, as one of the factors which helped the accumulation process. Thus both the 'marginal' services sector and self-help were seen to contribute to the capitalist expansion process, opening up thereby new perspectives for an interpretation of these 'backward sectors', connecting both of them with the study of the labour market and the production of urban space itself.

This approach rescued the production process of the urban periphery, hitherto ignored or seen as 'marginal', as a pri-
vileged issue within the urbanization process. A number of studies followed, in which the inner workings of the occupation process of the periphery were studied in detail: the land market, the housing production process, finance, use and distribution of building materials, and the owner builder of self-help himself (Maricato, 1979; Bonduki & Rolnik, 1979; Urplan, 1979; Mautner, 1981; Pasternak & Mautner, 1982; etc, to mention only some of those related to São Paulo).

Again, working on CEPAL’s legacy, another step was taken towards a historical re-construction of capitalist development by the Campinas Group during the late 70s and the 80s. Cardoso de Mello, one of the exponents of this group, re-introduced Cardoso and Faletto’s work as a touchstone for an historical re-construction of peripheral development, for the latter, as he put it,

represents an attempt at formulating a new question, the question of the establishment of a capitalist mode of production in societies which have in dependency their historical peculiarity (...) contributing with the idea that the social dynamics of Latin America is determined in the first place by ‘internal factors’ and at last by ‘external factors’ after the establishment of the National State (Mello, 1982: 26).

According to Mello, Cardoso and Faletto could not go further than they did because they missed the point, when criticizing results instead of going to the roots of the problem, which in Mello’s view was continued reliance on CEPAL’s historic periodization:

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16 Isik (1987:13) comments in his paper on under-development theories that: “most of the studies within the corpus of dualism concentrate... on the modern sector and the ways of accelerating development... and on the rate at which the traditional sector is dissolved. Since the traditional sector is bound to ‘die’ in the process of modernization, it would be futile to study its characteristics.”

17 A group of intellectuals who founded the Economy Department of the University of Campinas, João Manuel C. de Mello, Luiz G M Belluzzo and others, some of whom would later take an active part in the elaboration and implementation of Plano Cruzado.
unable to rely either on a correct periodization, or on a schema which could
capture in a concrete way the economic movement of society, the integrating
perspective was partially lost, giving the impression of having only added
social classes to CEPAL's theoretical framework (Mello, 1982:27).

As emphasis is given to 'internal factors', peripheral capitalist development should not be seen as following pre-fixed stages of development, but an internal logic should be re-constructed in which the specificity of a determined capitalism --in Mello's own expression, late capitalism-- should be captured, at the same time as it should also be inserted within the History of capitalism itself:

Brazilian and Latin American History is the History of capitalism and simultaneously, the History of our capitalism (Mello, 1982:177).

In one of the latest contributions to this line of thought, Csaba Déák presents yet another interpretation (Déák, 1989a) of capitalist development in Brazil which seeks to discover the inner determinations of this peculiar process of capitalist re-production, which he calls hindered accumulation: as being the form taken by the accumulation process in its extensive stage in ex-colonies. At the level of production, which provides the material basis for the reproduction of elite society, colonial exploration gives way to hindered accumulation, being nothing else but the continued expatriation of a sizeable portion of home-produced surplus, with accumulation of the remaining part of it, guaranteeing expanded reproduction. Accordingly, the recurrent crises (which have all too often been seen as 'cyclical') of Brazilian history are interpreted as crises generated by the antagonism between surplus expatriation and accumulation. We take a longer quotation from "Hindered accumulation ..." for it provides a good background for the developments regarding

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18 At the level of social relations, colonial society secured the institutional conditions of its own permanence with the constitution of the independent State (1822), becoming an elite society (see also Fernandes, 1972) in which wage labour does prevail, but where both the commodity form and (liberal) ideology are weakened.
industrialization, the setting up of an infrastructure for production, the formation of a building industry and housing policies discussed in the following Chapters. Thus:

Unhindered accumulation in the home market would require the full development of the productive forces and especially the strengthening of a bourgeoisie that ultimately would challenge the elite's domination as a class. This is why it is prevented at all costs, through the systematic dismantlement of embryonic development of industry by a variety of means such as fiscal, monetary, financial etc. measures complemented by liberal import policy in strategic industries of the time, currently centred on the means of production. Successive rounds of 'import substitution' are still necessary due to balance of payment constraints; when this occurs, the dynamic industries are given over to foreign capital which will not create internal forces that challenge the elite's position, as in the case of automobile industry in the fifties, wholly in foreign hands from the start, or with the electro-electronic industry in the sixties, when a nascent home industry was led bankrupt or depreciated through recessive policy, then passed over to foreign capital. Such policy is known as entreguismo, literally: 'give-away-ism'. These industries are highly, in some cases wholly, protected from competition either home or from abroad with the additional consequence that, on the one hand, they operate at very high rates of profit and on the other hand and more important, the motor of technical progress is removed.

In the crises provoked either by a balance of payments constraint or by an excessive strengthening of home production in the interim periods, both forces -- for and against the maintenance of the status quo -- come into open conflict. Such crises run through Brazilian history in seemingly endless and un-ending succession from generation to generation, since the trans-migration of D. João VI (1808). (...) History seems to come to a halt. Indeed, what is the same in these crises is that so far they have always been resolved in favour of the re-imposition of the primacy of surplus expatriation.

Finally, another contribution completes the approach to the endogenous processes of 'peripheral' development. De Decca's (1981) thesis on the 1930 Revolution resolutely introduces class struggle into an analysis of one of the turning points in Brazilian history: where 'industrialization appears as

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19 Government policy in 1988 was precisely an exacerbation of such measures, in a reaction to a tendency to the emancipation of the home market and 'nationalism' on the rise. In a 'letter of intent' (1.7.1988) to the IMF (which is meant to look like being 'imposed' upon the country), a plan of 'converting' US$ 3.32 bn of debt into equity in 1988 alone is stated, as reported in the Gazeta Mercantil, 7.7.88:Fp.
the crucial moment of the constitution of the Nation' (Mel­lo, 1982). This historical re-construction, in which the Re­
volution of 1930 is radically re-interpreted, shows clearly
that another History is to be written if class struggle is
taken as the pivot of the events related to it.

The same point is stressed in a revision of the historiogra­
gaphy of the conception of the Brazilian State, also focussed
on the 'Revolution of 30', by Zancheti (1985), who makes a
sharp critique of the way in which history was and is 'pro­
duced' by the left. Relying heavily on De Deca (1981) and
Chauí (1981, 1978) he indicates clearly that the construction
of the conception of State, which is paramount to understand
the 1930 Revolution, and the way in which Brazil developed
post-Revolution was mis-interpreted as it disregarded the
losers' --the working class--- a voice. Zanchetí argues,
contrary to the commonly held view of the State as a Deus ex
machina (Mathias & Salama, 1983), occupying an hegemonic void
(given the weakening of the 'coffee oligarchy' and the fra­
gility of the industrial bourgeoisie), that it was in fact
constructed on the basis of a compromise between both these
groups, and after they had struck an alliance to confront
the workers' emergence within the political arena through
the BOC (Workers' and Peasants' Block), which they success­
fully did between 1928-9 when the workers' movement had been
thoroughly dismantled through overt and violent repression.

... (T)he demolition of the discourse 'The 1930 Revolution' can be effected
only from within by a counter-discourse, proffered from a class as a star­
ting point, the class which was excluded from this memory as vanquished.
This demands first of all an understanding of how the victor periodizes
history, which is the image of the past, present and future chosen by him,
and, only then, starting out with the memory of the vanquished, un-do that
periodization. 1928 emerges as a lost historical moment, because in it
another history was being announced as possible (Chauvi, 1981, in De Deccas, 1981:16).

Thus, what can be observed in the debate going on both within and against CEPAL's model\(^\text{20}\) is a critical move to construct an historical interpretation of capitalist development at the Periphery grounded in the internal contradictions of its development. It is also the main line of our own approach throughout this analysis of the periphery of São Paulo as one of the fundamental processes of the production of its urban space.

\(^{20}\) Oliveira (1972), in his article "Critica à razão dualista" refutes Cepalist 'dual-structuralism' on both theoretical and methodological grounds without denying however the importance of accumulated knowledge built up during decades of debate -- on the contrary, he recognizes CEPAL as "the only valid interlocutor, which along the last decades, has contributed for the debate and intellectual production on the Brazilian and Latin American economy and society".
EARLY DEVELOPMENT OF THE BUILDING INDUSTRY
Chapter 2: EARLY DEVELOPMENT OF THE BUILDING INDUSTRY

1 THE RAILWAY AGE: THE BIRTH OF WAGE LABOUR IN CONSTRUCTION 1860-1930

The establishment of the building industry proper in Brazil is closely linked to the expansion cycle of coffee plantation, from the eighteen fifties onwards. The use of new means of transport --the railways--, the effective enforcement of the prohibition of the slave trade and the increase of wage labour in the new expansion areas in Western São Paulo dynamize the import/export sector and increase the rhythm of industrialization, leading the country's economy into a capitalist accumulation pattern.

In 1850, the promulgation of two laws, the 'Land Law' (Lei da Terra) under which access to land had to be paid for, and the prohibition of slave traffic, already established that both land and labour power were to become commodities. At

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1 All these factors, expansion of coffee plantations, generation of surplus, emergence of industrial activities, growth of foreign investments in Brazil, (mainly British from 1870 on) have raised the demand for infrastructure equipment, giving a strong push into construction activities, growth in number and kind of works and in the number of workers, skilled and unskilled involved in construction work (Grandi, 1985:46-7).
this time São Paulo was a town built up of adobe and lath and plaster, exception being made for some public buildings.

In Pereira’s(1984) account of construction activities in São Paulo during the 1870s, building activities were still far from being recognized as a part of an organized sector:

... the production of buildings reflected the instability of its organization, it did not supply the general needs of the ‘market’, but appeared and was dismantled according to single contracts and the availability of money (Pereira, 1984 :164).

There is no record of the ways in which the first national building firms were created and operated during the last decades of the nineteenth century, but there is some evidence of an early divide between building firms working for infrastructure and buildings.

The first projects of infrastructure in Brazil were undertaken in a very contradictory context. Railways, for example, together with the coffee processing industry, reinforced at the same time the agro-export industry (still based on slave labour) while creating the conditions for the emergence of wage labour\(^2\). Viotti (1966:173) gives an account of the impact the railway had on the coffee agro-export economy:

It is easy to imagine that with its construction a real revolution occurs within the coffee economy: workers until then kept away from agriculture for the purposes of transport, could be now re-integrated to it; more speed in communications, greater transport capacity, lower freights; better conservation of the products, which meant a better quality, reaching higher prices within the international markets; therefore, the possibility of higher profits and new perspectives for wage labour.

To meet demand and keep up with the rhythm of industrialization, besides transport (here including railways, tramway, roads and ports) power plants, infrastructure for telephony, water supply and sewage were introduced in the State of São

\(^2\) See Mello(1982).
Paulo. All this generated the need for organizing the flow of capital and availability of labour.

However important it may be, we will not here follow the joust between national and foreign capital for the control of key services. The massive presence of foreign capital was felt through foreign enterprises operating directly in trade, industry and banking as well as in loans and concessions.

In São Paulo there was clearly a divide between home based service enterprises working in smaller towns near the capital and foreign firms operating within the capital São Paulo (Light & Power Gaz Co., São Paulo Railways). The general tendency towards the establishment of foreign capital was to penetrate into key areas of incipient new markets being formed by small scale national enterprises — not without the active consent of the Government.

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Saes (1986:153) draws attention to a fact which is certainly not unique in Brazil's history:

It is clear that an electricity enterprise was not impracticable for national capital: Light & Power's 6 million dollars (corresponding to 40,000 contos at the time) did not exceed the capital of the Companhia Paulista de Estradas de Ferro in 1899 — circa 60,000 contos — a result of almost 30 years of expansion. On the other hand, technically, there were already national power companies working, although not as big as the Light power plant at Tietê river (in Paraíba) which started working in 1901. But in the same way as imported techniques allowed the development of national railway enterprises, there is no reason for technical obstacles to hinder the development of this sector under national capital.

Further, Saes quotes Vinhas de Queirós (Queirós, 1972) to confirm his conclusions:

"Contrary to what many people think — a part of these (foreign) groups had to face here (in Brazil) to establish themselves, strong opposition and competition of the national bourgeoisie and made appeals, as the Light group did, to 'men' of the Brazilian Government. There was no lack, to help these groups, of strong foreign diplomatic pressure and even complicated 'behind the scene manoeuvres'." (p. 154)
The initial move for the implantation of infrastructure for the agro-export combine was taken by national capital, accumulated mainly in the coffee economy and in banking during the Paraguayan War (1865-69). Through time, key enterprises were gradually dominated by foreign capital, attracted by the extremely favourable conditions offered to them. In particular, State resources were freely employed to subsidize the establishment of the railways, guaranteeing returns of 7% on investment, together with exemption from import taxes for all railway equipment and parts (trucks, engines, rails, coal and probably even for the clocks of the railway station). The State even if not financing directly (as it would do in many cases after 1930) offered the conditions (loans, subsidies, guarantee of interest rates) for private capital to build up the basic infrastructure for industrial development.

Later, by the end of the 'Rail Age', when emphasis was switching from rail to road, and when operating profits started to fall and State subsidies to dry up, private capital (whether national or foreign) pulled out and the State took over direct control of the operation of the enterprises. By 1929 the State owned already 67% of the railway network.

For many reasons it was the railways which played, from the mid-1880s to 1930 the most important role in the constitution of the labour force within construction (not forgetting the importance of the extension of wage labour within an economy still based on slave labour). It was also on and

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4 An innovation in government concessions were the 'privilege zones': 30 km at either side of the lines where firms could freely explore whatever minerals were to be found there (Katinsky, 1989a:12).

through the rails that new building techniques and materials were introduced to urban building sites ⁶.

The railways brought, (therefore, ) on their rails new building resources, but particularly a new way of constructing (...), technical precision, due to the greater complexity of structures for the railways made itself felt on the urban buildings as housing, trade and others... (Reis Filho, 1978:156).

The participation of Brazilian engineers during the establishment of the railways was limited to scouting, surveying and preparing the ground, and to taking part in the definition of the railways routes ⁷. All other -- and therefore, the virtual totality of-- engineering work depended on the specialized training of English, American, French and German engineers who projected the lines, bridges, cuts and embankments, drainage, tunnels and even the stations ⁸. Even though after the 1880's there was a rising participation of Brazilian engineers in projects proper, they still followed imported patterns with heavy use of metal structures which were produced in England or Belgium ⁹.

The way in which the railways organized construction work, with much sub-contracting either for stretches or for specific tasks, favoured the establishment of small home-based

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⁶ In fact technological diffusion should not be attributed to the construction of railways only. The construction of power plants also had a great impact on edification, introducing the use of reinforced concrete in urban buildings and in the construction of bridges for the railways, which were usually built up with metal structures.

⁷ The majority, if not all, of them were military engineers with a special training in topography (Katinsky, 1989a:8).

⁸ Many of the stations came entirely from England, introducing assembly work of pre-fabricated parts.

⁹ From 1980 onwards Civil Engineering Schools were well established and Katinsky notes that: "it is curious that 'national engineering' having so many direct links with the Government, having so much cared for the quality of technical schools, has not seen with the same care the formation of a technical intermediary staff: a skilled labour force" (Katinsky, 1989a:9).
firms contracted for work requiring low specialization and abundant and intensive labour. And here we face one of the main problems concerning the establishment of the railways: the shortage of an available labour force. This was to have important consequences for the characteristics of the labour force in the building industry in the decades to come (because of the importation of European labourers).

The shortage of labour was not of course a specific problem in construction, it was already badly felt among coffee producers during the 1840s, when the first immigration firms started to operate, settling 'colonies' to supply labour for coffee plantations, according to an immigration pattern called by Mello (1982) colonization for capital as it was not established to pursue territorial occupation. Immigration policy was intensified particularly from the eighties on, the supply of labour as a necessity for capital accumulation reaches proportions such as to bring into the country 1.4 million immigrants between 1888 and 1900, of which 890 000 remained in São Paulo ... (De Decca, 1981:143)

Before the 'abolition' of slavery in 1888, slaves along with wage labourers, used to work on the construction of railways, although there were restrictions on their working directly with concessionary firms. It was subcontracting, in charge of less specialized and peripheral work, a usual practice in railway construction, which made use of slave labour. Given the shortage of labour, workers were 'imported' from almost everywhere: Central Europe, China, Italy, Spain, and neighbouring South American countries. At this time several railways were being constructed simultaneously.

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10 The State of São Paulo (not without some haggling about who would pay the bill) started in 1881 financing as much as 50% of immigration costs, and after 1885, 100% of them, on the condition that immigrants had to settle in agriculture. For that purpose taxes on slave property were also imposed. The Union started to employ 1/3 of resources usually spent in toton for an 'emancipation fund' for immigration (Hall, M., 1972 The origins of mass immigration in Brazil-1871/1914, University Microfilm:99, in Mello, 1982:87).
and there was no previous labour market to supply so many fronts.

So it was that in the case of the railways --even though the majority of them (with the exception of the Sao Paulo Railway) within Sao Paulo State were built with national capital\textsuperscript{11}, both technology and labour --whether skilled or unskilled-- were imported, building up a labour force in the process which in fact preceded the organization of national firms for public works. Many of these workers, given the bad working conditions, fled to Sao Paulo, which thus became a gathering ground for a contingent of relatively skilled workers.

In contrast to what was occurring in public works which were under the hegemony of foreign firms, within the city's boundaries, construction work developed under the organization of national firms. In charge of the building sector were engineering firms for the design and construction of public buildings, and houses in the elite districts. Outstanding among them was the office of Ramos de Azevedo\textsuperscript{12}.

\textsuperscript{11} Saes(1986), in his book on the rise of the big public service enterprises during the 'coffee economy' calls attention to the strong participation of coffee farmers in the investment and administration of the railways during the second half of the nineteenth century. The railways are seen as the first articulation of big capital: "The presence of urban shareholders (tradesmen, capitalists, lawyers) is not enough to modify a trend we consider fundamental: the entrepreneurs of the national railway network in Sao Paulo in its initial stage are the big coffee farmers" (Saes,1986 :278).

\textsuperscript{12} Francisco de Paula Ramos de Azevedo was born in Sao Paulo, 1851. Between his attempt at a military career and his studies in Belgium he worked as a probationer for engineering with the railways companies Mogiana and Cla. Paulista de Estradas de Ferro. At the Mogiana he became acquainted with Visconde de Paranaiba from whom he would have protection and be called to Sao Paulo, becoming President of the Province (1886). In 1896 he opened his office in Sao Paulo which worked as a kind of construction holding, where family, friends and partners ran supporting construction businesses such as the import and production of building materials and finance. He also had an important role in the training and skilling of labour, teaching at the Polytechnics and remodelling Sociedade Propagadora de Instrução Popular (1873) into the Museu de
Ramos de Azevedo turned the century as the official government's architect and the upper class' constructor. His office constructed thousands of buildings, dominating the building scene and re-modeling the town. We can even say that other constructors remained with what was left over, what he rejected to do (Lemos, 1985: 109).

The foundation of Polytechniques (Engineering Schools) in both Rio de Janeiro and Sao Paulo at the end of the 19th century actually provided an institutional framework for the assimilation of techniques and building processes brought from overseas that would leave its mark on the building industry; while the Liceu de Artes e Oficios (Arts and Crafts Lyceum) would ensure a supply of skilled labour for the building industry.

The construction of middle class and working class housing, the latter for rent, was usually in charge of the Italian master builders, the capomastri. Peculiar to Sao Paulo was a building work force composed almost entirely of Italian immigrants.

At the beginning of the nineteenth century construction workers were an important fraction within the urban workforce, both in numbers and organization:

Among the semi-artisans (craft workers), construction labourers were known for higher cultural standards, better working conditions and salaries, for their strength and associative continuity. An enormous distance separates the structure of this branch (construction) from the early years of this century to our days, either from the point of view of enterprise's organization or skills (Fausto, 1977: 129).

Artes e Oficios (1882) which became for more than fifty years the pattern of good quality in finishing and furniture. The lecturers at the Liceu were all Italian artisans, trained and skilled in their own country (Lemos, 1985: 107 and 114).

"Italians represented three-quarters of the bricklayers and almost the totality of the building masters working within the city" Magalhães, Basílio de (1913) O Estado de São Paulo e seu progresso na atualidade Tipografia do Jornal do Comercio, Rio de Janeiro, p. 74, in Bruno (1984) p: 948.
Construction workers had in fact an important leading role within the urban working class, they won many strikes, better salaries and 8 an hour working day during the two first decades of this century, being even organized in different branches, reminiscent of the form in which corporations were organized\(^{14}\). The reasons for their strength are usually ascribed to the number of foreigners (mainly Italians), literate, with a strong anarchist tradition, in addition to the form in which construction enterprises were organized at this time and to the shortage of labour during a period of intense urbanization (for the pace of growth of São Paulo, see Table SP1 below).

\[\begin{array}{ccc}
\text{Year} & \text{Population (1000)} & \text{Growth rate (1)} \\
1836 & 12 & - \\
1874 & 23 & 1,73 \\
1886 & 44 & 5,55 \\
1900 & 240 & 12,88 \\
1920 & 570 & 4,50 \\
1940 & 1311 & 4,17 \\
1950 & 2155 & 5,10 \\
1960 & 3700 & 5,58 \\
1970 & 7300 & 7,01 \\
1977 & 10273 & 5,00 \\
1987 & 16000 & 4,53 \\
\end{array}\]

Source: Deák(1986), mimeo.

\(^{14}\) Organization of construction work during the time Brazil was a colony (1500 to 1822) followed the path of Portuguese corporative organization. In 1572, crafts were regulated within the Colony (these regulation were extinguished by the 1824 Constitution) in relation to work practice, use of materials, quality, prices and the relationship between members of the same craft corporations (Cumha,1978 in Valladares,1981). Cumha(1978) explains the various meanings of the term craft --'oficio'-- at this time. In the strict sense, it meant the practices defining a profession; in a broader sense practitioners of the same profession. But it was also used to designate a corporation, assembling more than one craft. A corporation was also called a 'flag' --'bandeira'-- because their members used to go to religious ceremonies carrying a flag picturing the saint who protected the corporation (Valladares et alii, 1981).
According to the witness of Piô Bitelli, an old builder and son of an Italian capo, up to the 1920s a 'licence' to work depended almost exclusively on skills, assessed usually by means of tests or by presenting work which had already been done. From the twenties on, to be officially recognized as a licenced builder (licenciado projetista/ construtor) it was necessary to present the certificate of a technical course:

He (the licenced builder) was registered with the local government. He signed projects. So it is that many became 'signants', signing more than two thousand projects. In 1930, when Getúlio Vargas became president, the 'class' of the engineers started to lobby the president to cut off the licenced builders. And what happened? What happened is that they put on pressure and Getúlio cut the recognition of the technical schools. (...), so started the decay of these schools. ...(skilled labour) did not come from the Universities; it came from there, from their teachers. (Piô Bitelli)^15

Fausto draws attention to the fact that until 1920 the characteristics of the industrial structure were given by the small firm, short of capital and technically based on craft work, textiles being the only exception. The absence of a rigid command hierarchy, the small social distance between master/employer and workers, command not dissociated from skill tended to lead to less stressing work relations, and to a better chance to put pressure and obtain concessions. It was also among small enterprises, usually based on skilled craft work, that the stronghold of anarchist militancy could be found.

Building firms in particular were also small, following the general pattern at this time. According to the 1920 Census:

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15 This quote and others in later Chapters of Piô Bitelli are taken from a personal interview with him by the author in November 1987. Piô Bitelli was born around 1910 and his father came from Italy to work on the railways. He is a builder, learned with his father, studied for some time at the Liceu de Artes e Ofícios and worked as master builder for many known architects during the 1940s, 50s and the 60s (I have not been able to check the information he gave me with other sources).
among 331 building firms in Brazil, 297 employed less than 20 workers, and only 5 employed 100 or more workers (Fausto, 1977 p:132).

The employer was typically a small builder who used to be paid for the finished work having also to provide building materials. Under these conditions, any work interruption produced a serious impact.16

If in our day there is no reminder left of 'the old working class' of the first decades of this century within construction, there is no reminder either of the way in which working class housing was provided: based on rent and constructed by these same labourers, usually neighbouring the railways where industry was also concentrated. Many factors converged to bring about the switch from working class housing provision based on renting to ownership. We will come back to it later on.

There was a clear export policy underlying the construction of the railways in São Paulo: the network to drain the coffee out of the country had literally inscribed it in the ground. However, it was equally instrumental in concentrating and developing within São Paulo the very centre of industrialization of the country. Indeed, when it became necessary to start production to provide for at least a portion of domestic consumption, São Paulo --because it was the main producer of coffee, the prime export staple of the period, so that most of the infrastructure building was concentrated there-- became naturally the centre of a growing industry catering for the home market. The concentration of labour --and especially of wage labour-- was part of this process.

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17 It is important to note that, as a sign of the presence of forces antagonistic to surplus expatriation, even at the time when railways started to be introduced in Brazil to dynamize the export of agricultural produce there was already a call for 'national integration' through a railway plan linking North to South in a mixed system taking advantage of inland navigating. See inaugural speech of Cristiano Benedito Ottoni, vice-president of Companhia de Ferro D.Pedro II (1858), in Katinsky (1989).

18 Such a pattern has been widely recognized in the case of colonies and ex-colonies in general, as recalled by Doreen Massey. "We are used to pointing to the countries of Africa, or of South America, and explaining how their internal spatial structures (or at least that part of those structures which is marked on our maps) reflect clearly the international role and position of those countries --in other words, their previous colonial status. The dominant ports, the focused transport systems, the superimposition of external orientation of one sort or another on a previously existing form of indigenous economy and society, are all a clear reflection of a country drained for export by those we now call the First World." She also proposes the rather less common view that the imperial relation leaves its mark on the internal geography of countries at the other end of it as well, in this case, of Great Britain -- "[t]he difference, of course, is that the British economy --or British capital, anyway-- has long been on the dominating end of international economic relations." (Massey, 1985:32).
Production for the home market however makes an altogether different demand on spatial organization from exportation: it calls for an accessibility to and from the whole of the national territory which is to become a single space for the unified market. The main infrastructure which was to provide this were the roads and motorways and the evolution of these eloquently illustrates the prominence São Paulo had reached at the national level. (see maps of pp.71-2 in Chap.3 further below). On the other hand, the widening of the home market also set off important changes both in the structure of production and in the organization of the State.

The '1930 Revolution' is considered the turning point from oligarchic to industrial political hegemony in Brazil. Nationalist ideology was based thenceforth on the 'modernizing trend' of industry and banking against the 'backward agrarian interests' supporting policies which privileged the external market.

Two rounds of confrontation between organized labour and capital virtually silenced the working class, of which the first, the 1917/19 strikes, was followed by a decline in anarchist organization and the second, a large-scale election rout of the Workers' and Peasants' Party (BOC-Bloco Operário Camponês) in São Paulo at the end of the 1920's, was followed by constant repression. Under the Vargas government (1930/45), Draconian labour regulation was institutionalized, and, if it incorporated on the one hand some old

19 "The refusal to recognize the political instance as a specific level of the social structure leads the Anarchist to ignore the question of the State and the combination of the economic and political forms of fight" (Fausto, 1977, p.246). "Class-struggle was reduced to the economic level, to a class-to-class confrontation, preserving the 'repressive purity' of the gendarme State. The refusal to put pressure on the State, during the long round of fights for social citizenship, the refusal to put pressure for the normative incorporation of conquests meant that fights and conquests were, sooner or later, doomed to painful failure" (idem:247).
labour rights, on the other hand it tied labour organization directly to the Labour Ministry.

The period 1930 and 1955 internalized much of the production for the internal market via import substitution, which generated a great demand for public works. These were this time orchestrated by the State which besides planning and channeling resources to its completion had in some cases direct involvement in construction.

After a record 1208 km of new track between 1908 and 1914, the construction of railways came to a virtual standstill during the First World War, heavily dependent as it was on imports. There was a recovery after the Great Crisis (589 km between 1935 and 1938), then during the Second World War railway building slumped again: in the six years between 1939 to 1945 a mere 153 km of track were added.20

The decline of the coffee economy brought with it the decline of the railways, aided also by the car industry of the neighbouring US, which was then gearing to Fordist mass production21 (the first car assembly plant - General Motors - was set up in São Paulo in 1925). This led to a complete switch from rail to road22. Road building quickly became a 'hit': Washington Luiz - Brazilian president during the

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21 It is still in popular memory that capomastri used to ask the future house owner if he wanted a Ford or Chevrolet house. It was the difference between a smaller (Ford) or bigger (Chevrolet) quite standardized house, a touch of 'modernity' brought into the building site.

22 In 1911 there were about 2000 cars in São Paulo which shared the unkept streets with coaches pulled by horses (Bruno, 1984:1085) According to Bruno, the first car ever seen in the very centre of São Paulo was in 1898, "people gathered around an open car, with four rubber wheels, two passengers which moved on its own" (Bruno, 1984:1082).
Table BR1:

BRAZIL: 1854–1934

GROWTH OF RAILWAYS

Mileage Coffee export

<table>
<thead>
<tr>
<th>Year</th>
<th>Length (km)</th>
<th>Coffee (1000 bags)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1824</td>
<td>3178</td>
<td></td>
</tr>
<tr>
<td>1834</td>
<td>10430</td>
<td></td>
</tr>
<tr>
<td>1844</td>
<td>18367</td>
<td></td>
</tr>
<tr>
<td>1854</td>
<td>14</td>
<td>27339</td>
</tr>
<tr>
<td>1864</td>
<td>474</td>
<td>29103</td>
</tr>
<tr>
<td>1874</td>
<td>1284</td>
<td>32509</td>
</tr>
<tr>
<td>1884</td>
<td>3302</td>
<td>51631</td>
</tr>
<tr>
<td>1894</td>
<td>12260</td>
<td></td>
</tr>
<tr>
<td>1904</td>
<td>16306</td>
<td></td>
</tr>
<tr>
<td>1914</td>
<td>26052</td>
<td></td>
</tr>
<tr>
<td>1924</td>
<td>30306</td>
<td></td>
</tr>
<tr>
<td>1934</td>
<td>33106</td>
<td></td>
</tr>
</tbody>
</table>

Source: Baer (1989): 20, 16
late twenties-- slogan was "To govern is to build roads".

Even before the launching of the first National Road Plan in 1924, there was already an incipient but steady move into road construction in São Paulo, Minas and Rio Grande do Sul. Growing pressure built up in the country for the creation of a specific fund --through the taxing of fuel-- towards the construction and expansion of a road network. In 1940 such a fund was created by the Federal Government, but it was only in 1945 that the basis for a national road policy was launched with the Joppert Law ('Lei Joppert') which created the conditions for the implementation of the 1944 National Road Plan

Thus although the first National Road Plan was elaborated in 1924 it took something like 20 years for the motorway boom to occur, right after the Second World War, from 1945 to 1955, and then, especially in São Paulo and Minas Gerais. The construction of motorways was the very beginning of the big construction firms, born from and within a long partnership with the State.

With the motorway boom a strong and continuous market for construction in the public sector was created for the first time within the country. In this, the presence of Brazilian building firms was considerable, for the nature of road construction which does not present, regarding technology, major obstacles and enables --through the subdivision of work into stretches-- the participation of small, medium or even large firms (Almeida & Ferraz Filho,1983, quoted in Grandi,1985:104)

Direct participation of the State (mainly in federal motorways) up to 1950 and discontinuity of demand during the

23 The Joppert Law introduced: financial and administrative autonomy for the National Department of Motorways (DNER) which became an autarchy with resources of its own; created the State Departments of Motorways (DERs), that also worked as autarchies and were to submit to the DNER; institutionalized a National Fund for Motorways with resources from the taxes on fuel to fund the DNER and DERs and created a National Motorway Council to coordinate the country's road policy (Grandi,1985:103).
first stages of road construction, added to low technological standards, possibly discouraging foreign firms from joining this venture.24

Some of the largest building firms still operating in our days were born at this time, set up for road building25. DINIZ makes an interesting account of the way in which building firms capitalized during the late forties and were ready to face the construction boom of the fifties in Minas Gerais:

The 'sharp practices'26 didn't stop there. Then came the most important thing, which makes one understand the existence of big construction firms in Minas Gerais. To this effect, the State acted as a lever for capitalist accumulation, transferring public resources to private enterprises. Construction contracts were priced and awarded on the assumption of un-mechanized production, i.e., pure labour. Further, tender prices were often readjusted during contracts. On the other hand, the building firms started to buy equipment, favoured by the preferential exchange rate for the importation of equipment established by Instruction 70, SIMOC. Mechanization allowed for an increase in profits. (...) On top of this, these enterprises substituted (with the consent of DER) the majority of bridges, viaducts etc. for embankments. Being paid for at pure labour rates, but built using machines, embankments became the major source of profits for these entreprises. (....) The result was that large profits added to subsidized exchange rates for equipment imports, super-equipped these firms for the second half of the 50's when, under the Program de Metas a huge motorway and power generation plan will be implemented (Diniz, 1981:79-80 in Grandi,1985:110).

This kind of procedure was not exceptional. On the contrary, it was quite widespread within the contracts for public works, so that the partnership between the State and big

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25 At this time firms like Ajax Rabello, Andrade Gutierrez were still small firms. Mendes Junior, which also participated later in the motorway boom was set up to prepare the ground for the settling of rails for the railways during the 1920's.

26 According to DINIZ, C (1981) Estado e capital estrangeiro na industrialização mineira UFMG/ FRHOC, Belo Horizonte, the first 'sharp practice' was the way in which the concurrence was made, involving the Governor of Minas Gerais, at this time, Juscelino Kubitschek.
building firms became a constant feature in the country, leading to powerful enterprises which have played an important role in the political scene ever since.

Samuel Wainer, a polemical journalist and owner of the newspaper *Ultima Hora*, closely linked to the second Vargas government (1950/54), to Juscelino Kubitschek (1955/60) and to Jango Goulart (1961/64), includes the Press in the partnership.

In the First Republic (1889/1930), many newspaper owners prospered as agents of the interest of the coffee exporters. In the 50's, the 'coffee barons' were substituted by the big empreiteiros (owners of big building enterprises).

The presence of empreiteiros on the Brazilian political scene is still very strong. They keep on interfering in the choice of ministers acting within areas included in their universe of interests, financing candidates and parties, electing deputies and senators, influencing the political alignment of newspapers and magazines. This kind of business usually does not leave traces, but it is easy to deduce that during the last years, billions were captured in this way, shared between empreiteiros and their partners within the Press (Weiner, 1988:224-5).

To Rabello, one of the firms involved in the road competition referred to above by Diniz, was given the construction of the new capital, Brasilia.

Another crucial sector for industrial development was the expansion of electric power. There the involvement of the State in construction was also strongly felt, although it did not have the same impact as road building on the strengthening of national building firms. Electric power plants

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27 "Up to 1955 185 dams were constructed in Brazil, of which 58% were owned, projected and constructed by DNOCS—Departamento Nacional de Obras contra a Seca, 28% were constructed by the Light or other foreign firms (like Hugh Cooper, Christiani & Nielsen, Morrison Kneedson). Brazilian firms start to appear after 1933, and more frequently between 1946 and 1956, even if smaller in numbers and size" (Mello, F M, 1978, “Grandes Barragens do Brasil” Construção Pesada 8:95, quoted in Grandi, 1985:115).
were first organized within different States and it was only in 1954 that a Federal Electrification Plan was sent to the National Congress by Getulio Vargas.

The strong emphasis on transport and energy infrastructure during the fifties was highly recommended by the Comissão Mista Brasil-Estados Unidos (1951/53) headed by Roberto Campos, set down to identify bottlenecks within Brazilian industrial development and to elaborate projects to attract foreign investments. Proposals to overcome these bottlenecks were not restricted to industrial growth, but included efforts to enable ‘territorial integration’, i.e., to strengthen the links between the ‘developed’ South-East and the rest of the country towards the creation of a national market (Schiffer, 1989:35).

To direct the economy towards a new pattern of accumulation, based on the widening of internal realization, under the pressure of a growing industry the State becomes after the 1930 Revolution the institutional locus for the creation of conditions to guarantee production for --and (albeit limited) expansion of-- the home market. Among these conditions, one of the foremost was the regulation of the relations between capital and labour through the Labour Laws (‘Leis Trabalhistas’) 28.

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28 Others, apart from investment in infrastructure already referred to were: imposition of ‘exchange confiscation’ (through under-valued currency) on coffee producers with a re-distribution of gains between groups among capitalists; lowering the costs of capital through subsidized exchange rates for equipment imports for industry and generous flow of credit with negative rates of interest; and direct investment in production such as Volta Redonda (steel plant) and Petrobras (oil company). See for example, Oliveira (1972):14ss.
In 1933, according to Decree No. 22652, trade unions became subject to recognition by the Labour Ministry to have juridical existence:

Under this 'framing' trade unions (either of employers or of workers) are stripped of their fighting character, since the Labour Ministry starts to carry out a real 'patrolling' -- even though administrative -- of their activities, in their own headquarters (Rodrigues, 1979 in Grandi, 1985:131).

Social security, which before 1930 followed the model of the 'Pension Funds', (Caixas de Aposentadoria e Pensões -CAPs) and meted its benefits out firm by firm, extended its services after 1930 to the whole Civil Service. Later on, the division according to firms was substituted by another, along occupational lines, through the IAPs or 'Pension Institutes' (Farah, 1983:21). Thus, with the creation of the IAPs, the old model of the CAPs centred on individual firms was abandoned, with nation-wide social security bodies reaching all workers in industry.

On top of the concession of benefits, mainly in the form of pensions, the IAPs also offered some secondary services, namely, medical care and financing of housing. According to

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29 Grandi gives an account of the series of measures taken by the State after 1930 to regulate labour, which were eventually to be summed up through the Consolidation of the Labour Laws, Decree 5452, May 1st, 1943 (Grandi, 1985:129).

30 The Eloy Chaves Bill (1923) determined the creation of a CAP in every railway company in the country, aimed at providing railway workers with old age pension, medical care, and funeral help. The scheme was later (1926) extended to dock and navigation workers, that is to say, to all sectors vital to the coffee economy (see Farah, 1983). Marta Farah, in her MPhil thesis gives an account of the role of the State on the provision of working class housing before the launching of the BNH (National Bank for Housing) in 1964.

31 Both the Eloy Chaves Bill (see previous note) and the creation of the IAPs were preceded by intense agitation of urban workers. Indeed, the Eloy Chaves Bill is in fact a concession to the combative category of railway workers. Similarly, the IAP of banking clerks was created under the pressure of a general strike. The IAPs and the social security system in general were thus gradually incorporated to the design of capitalist development then in gestation (Farah, 1983:24).
Farah (1983: 85), financing through the IAPs was quite effective in supporting the building industry because it created a State sector in housing at the same time as it increased demand through the credit lines open to workers (between 1946 and 1950 in Rio de Janeiro, as much as 26% of all housing was financed by the IAPs).

The delicate balance between agro-export and industrial interests within the State and the slight shift to industrial hegemony (only in 1956 does the share of industry in National Income become greater than that of agriculture) is reflected, among other things, in the precise ways in which the IAPs were created. The first IAPs consolidated the rights of workers still linked with the coffee economy, the next ones corresponded to better organized professional categories and with more chance to put pressure for the creation of an IAP, (the bank clerks' IAP was created after a general strike), and the IAPI (for industrial workers) was 'offered' to the category of workers concerned.

Besides the generalization of pension benefits, according to occupational categories, there was also another important change: Social Welfare came under the direct control of the State through the Labour Ministry. All contributions were centralized within this ministry, which also administered and planned the way in which they would be spent. As the collecting system was designed to collect more than the necessary expenditure, Social Welfare funds were invested in key enterprises for industrial development:

One of the main obstacles to increase State intervention within the economy was the shortage of public resources. To finance key sectors for the implan-

With the CAPs system contributions were made by the firms, and administration was run by a board composed of representatives of employers and workers. Funds were administered by the CAP, and the State entered as another contributor and as a fiscal body.
Thus the developments of the second half of the nineteenth century through to the first half of the twentieth brought about a number of elements which taken together, settled a basis on which wage labour was being generalized and a home-based building industry was to develop, both processes being, in fact, part of a more general move towards the structuring of Brazilian territory --hitherto rather like an archipelago of isolated regional spaces corresponding to local markets-- into a single space for a unified market. Due to the antagonistic nature of such an inward-oriented movement with the outward-looking policies to which Brazilian society had been committed since colonial times, such elements remained by the end of the second Vargas government largely scattered, un-connected either functionally- or geographically. (An eloquent sign of which being that inter-state tax barriers were abolished only in 1948.) During the Vargas crisis, in the years that immediately preceded and followed Vargas' death, the conditions of the ruling class' hegemony were restored for a time and the movement towards the consolidation of the national economic space greatly accelerated.

33 Farah(1983):27. Some of the great recipients of the IAPs' resources were: Credit for Agriculture of Banco do Brazil, the first Brazilian cellulose and paper factory, National Alkalis Co, São Francisco Power Co, National Motors Factory and the most important initiative during the Estado Novo (1937/45): the National Steel Plant ("Companhia Siderurgica Nacional").

34 The second Vargas government ended in 1954 when Vargas committed suicide. In a testament-letter Vargas referred to "terrible forces" risen against his (nationalist and 'inward'-oriented development) policies.

35 In her study on the 'structuring/ de-structuring' of Brazilian territory into a national space, Klára Mori concludes that "[t]he logic of the colonisation process first, and the prevailing class interests after Independence resulted in a process in which incorporation of the various portions of the territory to the market went not through additions, but rather alternance of the areas concerned. (...) Thus the resulting [national] space was structured and de-structured according to the changes in direction, area or produce of the basic [economic] activity." Mori(1988):106.
CONSORTIATION OF WAGE LABOUR IN THE BUILDING INDUSTRY
Chapter 3: CONSOLIDATION OF WAGE LABOUR IN THE BUILDING INDUSTRY

1 THE BIG CONSTRUCTION FIRMS
(1955/1964)

'State planned' policies kept on being carried out during Juscelino Kubitschek's government following the Plano de Metas elaborated by Grupo Misto BNDE-CEPAL\(^1\) (1953/55) co-ordinated by Celso Furtado, pointing out the same economic bottlenecks as those identified by Comissão Mista Brazil-US (1951/1953). And in the same way, foreign investment was proposed to make up for the 'internal shortage' of capital. This time, however, an important new element entered the resulting industrial policy in the form of an explicitly stated political option according to which expansion of the private sector should be effected through the 'association' with --read: under the command of-- foreign capital (Schiffer, 1989:36).

The State of São Paulo concentrated the virtual totality of new investment, most of which was in the 'dynamic sectors'

\(^1\) BNDE: Banco Nacional de Desenvolvimento Econômico (National Bank for Economic Development).
of the economy (car industry, steel plants and chemicals). Road building became paramount for the unification of the home market to be supplied by the new industries, and sizeable resources were indeed allocated accordingly to this purpose, as is illustrated by the maps that follow. At the national level, the roads were to bring raw material and labour from all over the country to São Paulo and take back its produce (see the evolution of the Brazilian road network from 1958 to 1980 in the maps of p.70 below), whereas within the State of São Paulo they supported an intensified agriculture in the hinterland and even some degree of industrial de-centralization away from the metropolitan area (refer to the maps of p.71 further below for the evolution of the road network of São Paulo in the same period).

The profound political and economic changes in the period between 1930 and 1955 entailed lasting and equally profound changes in the composition of the working class within construction. The substitution of immigration by internal migration, new building materials --now produced within the country-- simplifying production, the erosion of labour's fighting power, with the trade unions virtually run by the State, and the enormous extension of industrial employment demanding an increasing output in construction work for both production and reproduction, thoroughly re-organized the la-

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2 Between 1949 and 1959 the share of São Paulo in national industrial production (value added in all manufactures) rose from 48.85% to 55.55% and its share in the industrial workforce, from 41.01% to 46.60%. For the production of capital and durable goods alone the same indices, show a still higher concentration: in these branches the share São Paulo rose from 69.71% to 82.03% in value added and from 57.68% to 72.27% of the workforce, during the same period (Cano, 1985:105, quoted in Schiffer, 1989:39).

3 While at the beginning of the 1940s 45%, or almost half of the building industry's labour force was made up of immigrants, this proportion fell to a mere 8% by 1960 (Grandi, 1985:177).
BRAZIL:
STATE OF SAO PAULO:
labour process within construction and allowed for the gradual de-skilling of the labour force in the building industry.

The implementation of the *Plano de Metas* during the Kubitschek government involved the participation of a building industry in formation for the construction of roads, dams, power plants and so on, needed either to face bottlenecks in industrial development or to provide infrastructure and guarantee the expansion of the home market. This gave the necessary conditions for the consolidation of a strong domestic building industry for public works, working to our day on a contracting basis, and depending strongly on State demand.

After the Kubitschek period of high rates of investment, both public and private, there was a sharp decline in the growth rate of industrial production from 7.3% to 1.6% between 1961 and 1963, along with a corresponding rise of inflation from 38.1% to 73.5% in the same period. The crisis which prenounced 1964 (a military coup brought about by a legitimacy crisis of the ruling class) has been attributed to a set of economic and political factors, in which the former are identified with the fall of public investment

---

4 Aims, at strengthening their position in bidding for public work, there was a trend to mergers among big contractors. To face instability in demand they also diversified their investments both within construction (edification, building materials, finance) and into other activities such as banking, agriculture, cattle, forestry or other industrial branches as chemicals, electric equipment, iron plants etc. A detailed account of the activities of some of these firms (Camargo Correa, Andrade Gutierrez, Alcino Vieira, Mendes Junior) can be found in Grandi (1985:231-7). It should be noted that these enterprises are very profitable and were able, in addition to building up such empires, to also acquire advanced technology and machinery. High profit rates are guaranteed of course, by the fact that they work under very protected conditions and plenty of government favour, very much like those enjoyed by 'defense' contractors in central countries.

5 Schiffer, 1989:47.
both by the State and foreign capital allied to a realization crisis of the recently implemented durable goods sector, and the latter with political unrest; workers refusing to 'pay the bill' presented by rising inflation rates.6

Another round of confrontation was pitched between 'nationalists' defending the expansion of the home market, and a new industrial bourgeoisie (built up during Kubitschek's government) allied to the older 'rural oligarchy' defending the 'association' to foreign capital.

A new economic plan was elaborated, Plano Trienal (1963/65), under strong Cepalist influence (Furtado was again deeply involved in its elaboration). Its ostensible purpose was to re-direct the economy against the recessive tendency, and it was on account of this purpose that it enjoyed the support of the US, at the time (just after the Cuban revolution) deeply concerned with what was going on in Latin American countries and eager to avoid 'political instability' in what it claimed to be its backyard. However, under the pretense of 'fighting' inflation, one of the main elements of the Plano Trienal became a violent wage squeeze, provoking an equally violent reaction of the working class against the Plan. In the face of widespread unrest the Plano Trienal was abandoned and the Goulart government set the course on an expansionist policy based on widening home production for a

6 "Up to the present day the discussion over the 1964 crisis follows three main streams: (...) the political situation within the country at the beginning of the sixties, which is the perspective of Francisco de Oliveira and others; a realization crisis, with insufficient demand for durable consumption goods (Pierre Salama & André Fernandes, and partially Conceição Tavares and José Serra) and finally, as a consequence of finance problems for new investments (another analytical trend of Conceição Tavares and José Serra)" (Moraes, in Mantega & Moraes, 1980:42, my emphases).
widening home market. This time it enjoyed broad popular support and nationalist feeling was again on the rise. Anxious to re-impose the primacy of surplus expatriation and unable to do this through ideology or hegemony, the ruling classes resorted to force and installed a military government (April 1st, 1964) which was to last twenty years.
It was in 1964 with the creation of BNH - National Bank for Housing (closed in 1986) and particularly from 1968 on, when the SFH-Finance System for Habitation effectively started to operate, that the house building sector was definitively organized on a capitalist basis:

(....) the SFH was an efficient form of amplifying housing provision in Brazil, either through the creation and strengthening of capitalist enterprises involved with the finance, production and sale of housing, or by channeling (to construction) the resources from saving accounts (SBFE - 'Brazilian Savings and Loan System') and compulsory savings (FGTS- Fundo de Garantia por Tempo de Serviço), a kind of unemployment fund, consisting of 8% of the workers' salary.

The SFH enabled the capitalization of the enterprises involved with housing provision by structuring a network of private finance agencies, and allowing for the financing of production and consumption. (...). The income concentration policy taken further during this period (1968/80) enabled the enlargement of a real estate market ('mercado imobiliario') for the housing provision on a capitalist basis. According to entrepreneurs in the house building sector, 90% to 95% of all flats launched within the market in Brazilian towns are financed through the SFH (Jornal da Tarde, 7/5/82 and OESP, 19/2/82, quoted in Maricato, 1987:30).

Created to drive and control resources of the SFH for the construction and financing of working class housing, to decrease unemployment, and promote private ownership, BNH all but abandoned the first of these goals already in 19697. But although the BNH had been launched mainly to increase housing supply, it had also right from the beginning the res-

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7 Up to 1969, 41% of BNH's resources were spent with the 'popular market' (blocks of flats for families earning 3 to 5 Minimum Wages-MW), 29% with the 'economic market' (families earning 7 to 10 MW) and 30% to the 'medium market'. Arrears and outright default on payments, however, showed in a short time the hopelessness of the attempts at selling houses to families earning such low salaries. In fact, from the start of the seventies up to 1974, 63% of the houses financed by SFH were for the 'medium market', 25% for the 'economic' and 12% for the 'popular' (Azevedo & Andrede, 1982).
ponsibility to invest in urban basic infrastructure. Throughout its existence (1964/86), resources privileged different sectors in turn within the building industry. The increasing participation of investments in urban and industrial infrastructure from 1970 to 1976 is interpreted by Maricato (1987) as a result of the pressure on the Government of the strong building firms linked to public works:

If BNH shifted its resources to big works, it was in accordance with the broader direction of economic policies of this period, and also in accordance with the interests of the big national construction firms for public works. The 'civil construction sub-sector' is composed of smaller and 'backward' firms, while the former is oligopolized, composed of powerful national enterprises, with ascendancy over the State apparatus. Adding to it the fragility of the popular market, due to high national income concentration levels, which make massive and profitable housing production difficult, we have some of the reasons for the direction of BNH's policies (Maricato, 1987, pp. 40-1).

Policies adopted by the newly installed military government through the Government's Economic Action Programme - PAEG ('Programa de Ação Económica do Governo') were directed towards administrative modernization and centralization. New institutions linked to the Executive through Ministries, such as the Central Bank and the National Monetary Council, among others, responded to specific national policies in the same way as the BNH itself did (Schiffer, 1989).

In order to neutralize old demands for land reform (reforma agrária), the Brazilian Institute for Land Reform ('Instituto Brasileiro de Reforma Agrária') was activated, in a move designed to implement the 'rural credit system' and to promote the 'modernization' of agriculture. The transition from an extensive and traditional agricultural 'model' to an intensive one, based on big property for the export of primary

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8 For an assessment of the activities of the BNH, see Bolaffi (1977), Azevedo & Andrade (1982), Maricato (1987) or Veras & Bonduki in Lovre (1985), among many others.
goods and industrial raw materials, extending wage labour to within agriculture had a great impact on urban areas. Subsistence production was dismantled and wage workers in agriculture went to neighbouring towns to constitute not only an industrial but also peasant reserve army.

Accelerated urbanization and heavy State subsidies determined to a great extent both the volume and the internal structure of the building industry, with high levels of concentration. A sample corresponding to 70% of the total production in construction shows these concentration levels and the internal structure in terms of size and volume of production (Table BR.2)

<table>
<thead>
<tr>
<th>SIZE</th>
<th>NUMBER OF ENTERPRISES (Abs)</th>
<th>PRODUCTION VALUE (%)</th>
<th>EMPLOYMENT (%)</th>
<th>LIQUID ASSETS (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>281</td>
<td>79.0</td>
<td>32.0</td>
<td>38.0</td>
</tr>
<tr>
<td>Medium</td>
<td>64</td>
<td>18.0</td>
<td>44.0</td>
<td>41.0</td>
</tr>
<tr>
<td>Large</td>
<td>10</td>
<td>3.0</td>
<td>24.0</td>
<td>21.0</td>
</tr>
</tbody>
</table>


There is no doubt that by the end of the seventies the building industry had become a strong home-based industrial branch, responding on a capitalist basis to the construction of the infrastructure of production and partially of reproduction.

We will give next an account on employment within the building industry and also on a number of distinctive features of the latter with respect to other industries, including: salaries, working hours, place of birth and so on.
3 EMPLOYMENT IN THE BUILDING INDUSTRY

During the seventies a number of studies drew attention to construction and specifically to issues related to employment. The first inquiries on employment within construction unfold at the same time the misery and the importance of this industry in the Brazilian economy, if for no other reason, for the high proportion of workers it absorbs. Other studies dealing directly with building firms show that this absorption is closely linked with migration. The building industry is called the migrant's entrance gate to metropolitan centres. Other peculiarities of this sector were also raised, such as for example high turnover rates, high proportion both of independent and of unskilled workers, and longer working hours and lower wages compared to other industrial branches.

A major feature of the development in Brazil for the last hundred years or so is urbanization (much as it was in 19th century England). During this period São Paulo grew from a small borough of 20,000 people into an urban agglomeration of over 17 million at a yearly growth rate which rarely fell below 5% and started to decline only in the 1970's (see Table SP1, page 54), running currently at about 3.5%. The process of urbanization was at first restricted mainly to São Paulo, the very centre of the process of industrialization,

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10 It should be mentioned that one of the policies stressed at the launching of the National Bank for Housing, during the sixties, was to increase employment through steady finance on the building industry.

Table BR3:

**BRASIL 1950/80
EMPLOYMENT BY INDUSTRY**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacture (1)</td>
<td>1.843</td>
<td>1.5</td>
<td>2.149</td>
<td>5.2</td>
<td>3.576</td>
<td>7.7</td>
<td>7.524</td>
</tr>
<tr>
<td>Building</td>
<td>585</td>
<td>2.9</td>
<td>781</td>
<td>8.2</td>
<td>1.720</td>
<td>6.2</td>
<td>3.151</td>
</tr>
<tr>
<td>Trade &amp; transport</td>
<td>1.581</td>
<td>4.5</td>
<td>2.456</td>
<td>3.4</td>
<td>3.415</td>
<td>5.7</td>
<td>5.927</td>
</tr>
<tr>
<td>Public &amp; social</td>
<td>911</td>
<td>4.9</td>
<td>1.468</td>
<td>6.2</td>
<td>2.584</td>
<td>6.1</td>
<td>4.857</td>
</tr>
<tr>
<td>Other services</td>
<td>1.945</td>
<td>6.4</td>
<td>3.609</td>
<td>3.5</td>
<td>5.075</td>
<td>6.2</td>
<td>9.228</td>
</tr>
<tr>
<td>Total non-agricultural</td>
<td>6.865</td>
<td>4.3</td>
<td>10.463</td>
<td>4.6</td>
<td>16.470</td>
<td>6.4</td>
<td>30.687</td>
</tr>
<tr>
<td>Agriculture</td>
<td>10.253</td>
<td>1.8</td>
<td>12.277</td>
<td>0.6</td>
<td>13.088</td>
<td>0.0</td>
<td>13.109</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>17.117</td>
<td>2.9</td>
<td>22.750</td>
<td>2.7</td>
<td>29.557</td>
<td>4.0</td>
<td>43.797</td>
</tr>
</tbody>
</table>

(1) Except building industry.

Source of raw data: IBGE (Brazilian Institute of Geography and Statistics), censuses 1950, 60, 70 and 80, quoted in Faria(1983).

![Employment by Industry Graph](image)

Figure BR3: Evolution of employment by industry, Brazil 1950-80. Branches of industry are the same as those of Table BR3 above, namely: Agriculture (Ag), Manufacture except building industry (Mn), Building (Bl), Trade & transport (Tr), Public & social services (Pb) and Other services (Sr).
but after World War II it started to spread over the whole country.

*Table BR3* and the corresponding graph (previous page) give the evolution and growth rates of employment (Economically Active Population -EAP) by industry for the last thirty years in Brazil, according to four decennial censuses, from 1950 to 1980.

The overwhelming majority of the total work force switched from rural to urban between the 50's and the 80's. In relative terms, the share of agriculture in the EAP falls from 59.9 to 29.9% in these thirty years; manufacture (including the building industry) rose from 14.2 to 24.4%, and services, from 26.9 to 45.7% (see *Table BR4* below). The contribution of the building industry alone more than doubled (from 3.4 to 7.2% of the EAP) in the same period.

**Table BR4:**

<table>
<thead>
<tr>
<th>BRANCH</th>
<th>ECONOMICALLY ACTIVE POPULATION (X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacture (1)</td>
<td>10.8</td>
</tr>
<tr>
<td>Building</td>
<td>3.4</td>
</tr>
<tr>
<td>Trade &amp; transport</td>
<td>9.2</td>
</tr>
<tr>
<td>Public &amp; social</td>
<td>5.3</td>
</tr>
<tr>
<td>Other services</td>
<td>11.4</td>
</tr>
<tr>
<td>Total non-agricultural</td>
<td>40.1</td>
</tr>
<tr>
<td>Agriculture</td>
<td>59.9</td>
</tr>
<tr>
<td><strong>TOTAL (1000)</strong></td>
<td>17.117</td>
</tr>
</tbody>
</table>

(1) Except building industry.

Source of raw data: Table BR3

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12 There is also a major qualitative change in the same period, widely known but not reflected in the numbers, namely, the generalization of wage labour in agriculture, even if the latter frequently takes on precarious forms as with the extensive use of daily (and seasonal) labour in plantations, hired in neighbouring towns, the *boias frias* ('cold meals').
Taking the last two decades, the building industry has practically absorbed one third of the labour force working in manufacture (1950: 24.1%, 1960: 26.7%, 1970: 32.5%, 1980: 29.5%). A great part of the work force in the building industry comes directly from rural areas combining the expulsion process from these areas (expansion of extensive plantations and cattle breeding at the expense of small holdings and subsistence economy areas) with the specific production process of the building industry which still uses a great deal of unskilled labour based on purely physical force (reflected also in the low levels of literacy and schooling of its workers -- see below).

Two surveys undertaken by Grandi (1985, p.384), both of them in São Paulo, one on workers specifically in the house building industry (with a sample of 260 workers), the other among workers across different sectors of the building industry (with a sample of 903 workers), revealed that 98% of the workforce was composed of migrants. In the first survey, 54% of the migrants or their families owned land, while 23% worked on the lands of landowners; similarly in the second one 72% of the migrants came directly from rural areas. In both cases more than 50% of the workers (64% and 52% respectively) came from Bahia, Minas Gerais and Pernambuco.

The level of literacy of the building workforce is very low. Referring to 1970 data Werneck (1978:56) quoted that "only in mining and forestry the distribution of workers according to literacy levels is comparable to the building industry workers: (...) illiterate: 43.3%, incomplete primary school: 32.3%". Even if Table BR5 below shows a lower percentage

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13 Werneck's and Grandi's data in this case should not be strictly compared: in fact, the former is collected in firms (MTPS/DNMO) and the latter is a domiciliary survey (IBGE).
of illiteracy (23.6%) among the building workers in 1980, together with incomplete primary education it still sums no less than 80%, an overwhelming majority of the workers with an extremely low level of instruction. Such a conclusion is only reinforced when building is compared to the group of remaining industries: the highest concentration of all workers is between one and four years at school in both categories, but construction workers have more than double the number of illiterates compared to other branches of industry.

Table BER5:

<table>
<thead>
<tr>
<th>YEARS AT SCHOOL</th>
<th>Manuf’s (%)</th>
<th>B Ind’y (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>10.7</td>
<td>23.6</td>
</tr>
<tr>
<td>1- 4</td>
<td>48.8</td>
<td>56.7</td>
</tr>
<tr>
<td>5- 8</td>
<td>24.6</td>
<td>13.1</td>
</tr>
<tr>
<td>9-11</td>
<td>11.6</td>
<td>4.2</td>
</tr>
<tr>
<td>12&lt;</td>
<td>5.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Total</td>
<td>6858508</td>
<td>3151094</td>
</tr>
</tbody>
</table>


According to Grandi(1985) employers and workers agree on the difficulty workers have in improving professionally and in assimilating technical knowledge with such a low level of instruction. On the other hand, the fact that the majority of the workers are hardly able to sign their name frequently leads to unwanted commitments with employers when they are induced to sign a contract, the content of which they are effectively unaware of.

Interviews with lawyers of the São Paulo Building Industry Workers Union (Sindicato da Indústria da Construção Civil de São Paulo) revealed frequent juridical problems due to the high level of illiteracy among building workers, such as to sign when they are hired a set of documents which includes their own resignation letter -- which allows the company later to settle accounts when they are fired as though they had resigned (i.e. excluding the payment of the FGTS) Grandi(1985),p:393.
Chap 3: Consolidation of wage labour 84

There are basically three main categories of workers within the building industry: the site manager, master builder or gang leader (mestre de obras), the bricklayer (pedreiro) and the helper (servente). In 1980 together they totalled 87% of the building industry's work force, and the proportion of each one in relation to the total number of workers was respectively 3%, 50%, and 33%. Training and skilling is practiced at work within the building site, informally. Even the masters usually start as helpers with the practice of learning their skills on-the-job (Grandi, 1985; pp 397)\textsuperscript{15}.

The wage structure within the building industry has the peculiarity of concentrating the bulk of the workforce (41.1% in 1979) between one and two Minimum Wage-Mw (salário mínimo), as shown in Table BR6 and corresponding graph (see following page). Accordingly, if compared to manufacture, which has a 'more even' distribution overall but actually a greater percentage of workers earning less than one Mw than the building industry, adding the workers in brackets less than

\textsuperscript{15} According to the Brazilian Classification of Occupations (Classificação Brasileira de Ocupações-CBO), the helper(servente) "performs simple manual tasks, digging ditches, transporting and mixing up materials, fitting up and dismounting outfits/frames, to help the construction or repair of buildings, streets, bridges and other works"; the bricklayer(pedreiro) "works on brick laying, with concrete and other building materials following drawings, schemes and specifications and using procedures and tools adequate to each task, to construct, repair, buildings and similar works"; the master builder/gang leader "organizes and supervises the activities of workers under his responsibility, distributing, coordinating and orienting the various tasks, to ensure the development, the execution of the works within the established schedules and norms: he performs tasks similar to the ones performed by the gang leader (metal works, steel plants), but he does it in construction work, repair and demolition of buildings, construction of roads, execution of power plants or marine works, or in services undertaken by subcontractors. He may specialize in a specific sector of the building work" (Grandi 1985, p:396).
Table BR6:

Brazil, 1973 and 1979

WAGE LEVELS BY INDUSTRY

<table>
<thead>
<tr>
<th>SALARY (Hr)</th>
<th>Manuf's Builds Ind'y</th>
<th>Non-agri' Agriculture</th>
<th>Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>34,8 20,1</td>
<td>33,5 18,0</td>
<td>34,5 27,4</td>
</tr>
<tr>
<td>1-2</td>
<td>33,1 32,9</td>
<td>41,7 41,1</td>
<td>32,3 28,6</td>
</tr>
<tr>
<td>2-5</td>
<td>23,1 28,0</td>
<td>20,4 32,6</td>
<td>23,8 27,2</td>
</tr>
<tr>
<td>5-10</td>
<td>5,9 9,6</td>
<td>2,5 5,3</td>
<td>6,3 8,2</td>
</tr>
<tr>
<td>10&lt;</td>
<td>3,1 5,7</td>
<td>1,8 2,2</td>
<td>3,1 5,3</td>
</tr>
<tr>
<td>Total (1000)</td>
<td>4382 7288</td>
<td>1532 2967</td>
<td>1392129077</td>
</tr>
<tr>
<td></td>
<td>100 98,2</td>
<td>100 99,2</td>
<td>100 97,7</td>
</tr>
</tbody>
</table>

Obs.: Percentages for 1979 do not add up to 100% due to those who did not declare any income.

Source: PNAD (Sample Surveys realized by IBGE in non-census years), 1967--; in Grandi (1965):399

Figure BR6: Wage levels by industry, Brazil 1979.

Branches shown are building industry (Building), manufacture (Manuf), and all industry (Brazil). Source: Table BR6.
The building industry still holds a record of low salaries, including even agriculture. The increase in wages from 1973 to 1979 is explained by Grandi (1985:401) by a concomitant increase in working hours per week: the percentage of labourers working more than 49 hours per week in construction increased from 26.4%, to 34.5% between 1970 and 1980.16

One widely quoted reason for the low level of wages in the building industry is the equally low level of unionization among its workers. Indeed, regularly registered workers do pay compulsory unionization taxes, but few of them are associated and participate in their trade unions. Results of a survey on building workers made in 1979 in São Paulo (Grandi, 1985:406) indicate 91.9% of non-unionization of the work force. For the majority of the interviewed workers the trade union was not seen as a means of defending class interests but rather as a social security institution for health services. The distance between representatives and workers makes it difficult for negotiations between labour and capital to take place. In a worker's words:

(the trade union) does no good for the workers because it favours more the bosses than the workers.17

Most of the wildcat strikes during the late seventies within the building sector occurred practically despite the unions, genuine worker’s outbursts against the appalling work and living conditions on the building site.

16 The comparison of salary levels expressed in numbers of minimum wage (Mw) in 1973 and 79 should also take into account a fall of about 25% in the real value of the Mw itself between those two dates. See also a comparison between income distribution in 1977 and 1987 in the São Paulo Metropolitan Region later in the next Chapter (Table Sp5 and corresponding graph, p.114).

17 Grandi (1985):407, where she also notes that some exceptions can be observed, where trade unions have higher levels of organization and autonomy such as those working in Porto Alegre and Curitiba, both in Southern Brazil.
If it is true that the low level of unionization may be attributed to peculiarities of the labour force and the production process proper in construction, a long tradition of harnessed (to the State) trade unionism should also be taken into account.\textsuperscript{18}

Another particularity of the building industry is a relatively high proportion in the total labour force of those who work as independent producers, on the one hand, or under irregular wage relations, on the other. Working on 1972 data, Werneck\textit{(1978)} already drew attention to the number of self-employed (own-account) workers in the building industry; the same trend is later confirmed by Grandi in a table indicating 26.1\% of them working at the building industry in 1980 nationwide (Grandi,1985 p:414). This percentage rises to 32\% if we take the metropolitan area of São Paulo in 1985 (see Table SP2, p.88). On the other hand the disparity between the National Household Survey-\textit{PNDA} (by Brazilian Institute of Geography and Statistics -\textit{IBGE}) and the National Department of Labour Force-\textit{DNMO}, giving respectively 1304 000 and 564 395 people working in the building industry in the first half of 1970, was interpreted by Ferreira\textit{(1975)} as a result of the non-regularity of their work conditions. They work in construction but since they are not registered as builders, they do not enter the numbers of \textit{DNMO}. Grandi (1985:381) in her turn, comparing data from \textit{IBGE} and \textit{RAIS} (Yearly Relation on Social Information)\textsuperscript{19}, concluded that

\textsuperscript{18} Since 1933, and according to a law which followed closely the blueprint of Mussolini's \textit{Carta del Lavoro}, unions had to be unique (one single union by trade), and also registered at the Ministry of Labour in fulfillment of a requirement for juridical status -- whereby they became subject to fiscalization and control of the Ministry and effectively ceased to be a means of struggle.

\textsuperscript{19} \textit{RAIS} collects data about workers who maintained formal work relations in some period of a given year (a reference year). Directors without work contract, own-account workers, odd jobs and students doing a stage are not considered.
Table SF2:

SÃO PAULO METROPOLITAN REGION
EMPLOYMENT RELATION BY INDUSTRY

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>TOTAL (1000)</th>
<th>WAGED (1000)</th>
<th>SELF-EMPLOYED (1)</th>
<th>OTHER (2) (1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacture</td>
<td>2045</td>
<td>1947 85.2</td>
<td>35 1.7</td>
<td>63 3.1</td>
</tr>
<tr>
<td>Building</td>
<td>375</td>
<td>241 64.4</td>
<td>120 32.0</td>
<td>14 3.7</td>
</tr>
<tr>
<td>Trade</td>
<td>899</td>
<td>555 61.8</td>
<td>238 26.5</td>
<td>105 11.7</td>
</tr>
<tr>
<td>Services</td>
<td>1248</td>
<td>842 67.4</td>
<td>342 27.4</td>
<td>65 5.2</td>
</tr>
<tr>
<td>Other(1)</td>
<td>1892</td>
<td>1657 87.5</td>
<td>171 9.0</td>
<td>65 3.4</td>
</tr>
</tbody>
</table>

Total 6459 5242 81.2 906 14.0 312 4.8

(1) Includes: agriculture; other manufactures; ancillary services; transport and communication, government; and other.
(2) Employers and un-waged
Source: PNAD(1985):213

Table SF3:

SÃO PAULO METROPOLITAN REGION
REGISTERED WORKERS BY INDUSTRY

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>Total (1000)</th>
<th>Work permit With perm (1000)</th>
<th>Without perm (1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacture</td>
<td>2045</td>
<td>1828 89.4</td>
<td>217 10.6</td>
</tr>
<tr>
<td>Building</td>
<td>375</td>
<td>219 58.5</td>
<td>156 41.5</td>
</tr>
<tr>
<td>Trade</td>
<td>899</td>
<td>585 65.2</td>
<td>312 34.8</td>
</tr>
<tr>
<td>Services</td>
<td>1248</td>
<td>580 46.3</td>
<td>668 53.5</td>
</tr>
<tr>
<td>Other(1)</td>
<td>1892</td>
<td>1659 87.7</td>
<td>234 12.3</td>
</tr>
</tbody>
</table>

Total 6459 4872 75.4 1587 24.6

1) Includes: agriculture; other manufactures; ancillary services; transport and communication, government; and other.
Source: PNAD(1985):225
56.3% of the building workers in 1980 were working in an irregular situation (these numbers do not include self-employed workers).

Table SP3 (p.88), also based on PNAD, shows 30.9% of the workers without a work permit in the building industry within the Metropolitan Region of São Paulo in 1985.

Even if we face some difficulty in putting together relevant data from different sources, the presence of both the own-account worker and of the 'irregular' wage worker is no doubt significant and point to the considerable weight of the 'informal' labour market within the building industry. On the one hand, it co-exists side by side with regular wage labour within the building industry through the cheating of labour laws\(^\text{20}\), while on the other hand it includes own-account labourers working at the periphery and in repair or maintenance work in central areas.

\(^{20}\) Non-registering of workers and tax evasion are common practices among labour-only contractors, sub-contracted by bigger firms in an attempt to avoid direct administration of the labour force (Maricato, 1983:77).
WORKING CLASS HOUSING
AND THE
PRODUCTION OF URBAN SPACE
Chapter 4: WORKING CLASS HOUSING AND THE PRODUCTION OF URBAN SPACE

... [W]hat I want to say of the houses of the BNH is that you buy but you never stop paying. The chap goes there to buy, he gets a five wage and pays the instalment. Now who earns one wage, he can't buy a house from the Bank, there is the interest, there is this and that, that's a damn thing. A person of low income has no condition to buy.

There were people who bought a house of those longer than ten years ago and he never knows what he owes and he is already sorry for it. You die and still you owe.

1 FROM SLUMS TO SELF-HELP

We have seen in Chapter 1 how spatial organization of what was the headquarters of the commercial and banking enterprise of the coffee economy, São Paulo, started at an accelerated pace with its industrial development when it became a fast-growing urban agglomeration. A new pattern of urbanization was established, bringing great changes into the urban structure, now necessary to both social production and reproduction. From 1920 onwards, there was a gradual transition from renting to house ownership2 (see Table SP4, p.92); from a compact and centralized city, where the various classes shared the same space, to greater segregation and dilu-

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1 From interviews taken from renters at the periphery of São Paulo, in Pasternak Taschner & Mautner(1982), pp:140-1. "One wage", "five wage": a salary of one, five Minimum Wage (cca £35.-).

2 World War I marks the start of the transition from rent to self-help housing; the 1940s saw the collapse of traditional forms of rent; and the years from the mid-50s onwards were those of the spread of the pattern periphery/self-help/ownership.
tion of the settlements over the urban space; from rail to road transport, and so on. All these changes implied an increased State intervention in the organization of urban space and ultimately, changes in the very mode of production of this space.

Table SP4:

SÃO PAULO 1920/70
TENURE OF HOUSEHOLDS

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Proportion of households (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1920</td>
</tr>
<tr>
<td>Rent</td>
<td>78.6</td>
</tr>
<tr>
<td>Owner occupation</td>
<td>19.1</td>
</tr>
<tr>
<td>Others</td>
<td>2.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>


It can safely be said that up to 1920 working class housing in São Paulo meant a rented house or a room. At this time a worker living in his own house would have been unthinkable. The part of the entreprise's profit that was not invested into industry went into real estate --where it took the form of housing for rent.

The dynamics of the coffee combine created in its various sectors (import-export, trade, middlemen, railway, industry, etc) excess of capital and small savings both of which, given industry's low elasticity and lack of stability, saw in the renting of housing a safe field of investment.

Yet other factors concurred in tying the working class to the rent form in housing. Public transport, based at this

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3 Given also, it could be added, incomplete development of banking as a means of directing surplus to dynamic branches of industry. This remark apart, Bonduki(1983), where the quotation is taken from, gives a good account of the transition from rent to self-help in the changing context of São Paulo after World War I.
time on the tramway, was charged at rates proportional to
distance (a flat fare was introduced later, precisely in
order to induce suburbanization), thus strongly favouring
concentration of workers' residences in central areas.
Equally, both the long working day (Labour Law regulations
were to be introduced later in Vargas' populist government)
and poor provision of building materials --much of which was
imported at prices inaccessible for workers (cement produc-
tion started only in 1926)-- made attempts at the production
of housing in the periphery through self-help difficult and
in fact they remained restricted to scattered and isolated
cases.

On the other hand, on the 'supply side', the rent form of
tenancy was reinforced, apart from building for rent proper,
by a tendency born at this stage of urban organization. This
was the abandonment of centrally-located districts by the
upper classes, seeking new areas to settle. This induced
the spread of renting rooms, resulting from the sub-division
of old villas into units of single rooms with common use of
'wet' areas (kitchen, bath and laundry), and thus strengthene
the predominance of the rent form.

In spite of rental being the predominant form of tenancy in
working class housing at this time, very little is known
about the form of its production. According to Bitelli,
Italian master builders (capomastri or capi) used to build
in the form of contract building. There was no legal need

---

4 Offered to them in turn by for example, the Companhia City (or 'City of São
Paolo Improvements and Freehold Land Co.Ltd', established in 1911). This
company was financed by the Boulton Brothers --British bankers-- and acquired
12 million sq.m. (or 3000 acre) of land in São Paulo for parcelling according
to a project in the charge of Parker & Unwin (1915). Details of this en-
terprise, which remained one of the biggest ever in real estate, may be found
in Bacelli (1983).

5 On Pio Bitelli, the son of a capomastri, see p.55, fn15 above.
for qualifications to build a house ("up to the 20s anyone with competence could construct"), and the distribution of building materials was made directly at the places where they were produced or in some cases by merchants. Building materials ordered were delivered by wagons pulled by donkeys.

The parcellization of the urban periphery accelerated to a high pitch after 1920, hand in hand with economic development and population growth in São Paulo. The expectation of valorization of the land which would soon be generated by urban growth attracted investors into the land market. Peripheral land was being parcelled up in ever-growing extensions and leaving wide gaps in between. According to Bonduki,

> this new option for investment, along with the transformation in the industry (...) that led to greater confidence in industrial investment, contributed to lessening the importance of the construction of housing for rent as a means of obtaining a return on capital (Bonduki, 1983).

This new pattern of 'urbanization' fulfilled an essential condition for self-help by providing the individual plot on which the worker's house could be built by himself.

Further, on the side of urban services, it was the switch from rail to road, allowing for a generalization of urban and suburban transportation that helped residential settlement in the periphery. An important move in this field was the setting up in 1925 of the first car assembly plant (General Motors) in the country, in São Paulo. Road transportation had arrived to stay and among other things, induced suburbanization.

The expansion and diversification of industrial production had its own reflection on the organization of the building industry. Between 1930 and 1940 the first apartment blocks
were built, starting the process of 'verticalization' of São Paulo. Meanwhile, those firms involved with the construction of infrastructure worked on the multiplication of roads, venturing even into the construction of power plants. The same period saw the birth of a number of new Brazilian firms and, with the decrease in mortgage banking, building firms turned from mere contractors into fully fledged managers of the production process: having their own working capital and thus being able to build speculatively. The enormous demand for building materials, exacerbated by the fall of imports during the first World War, gave a powerful push for further development of the production of building materials.

Finally, with the growing housing crisis through the 1930s, due to both shortage of housing itself and to excessively high rents (relative to wages), the Vargas Government froze rents in 1942. This measure favoured employers at the expense of housing landlords -- now a decaying sector of the housing market. Thus, workers having no alternative, either because of rents which had been frozen at a high level or because of the lack of housing for rent, set out to occupy the periphery through self help -- a periphery which had already been duly prepared through land parcelling and provision of at least minimal access and transportation. The parallel development of a national production of building materials turned out, of course, to be another important


7 The working class in São Paulo has shown its resistance to paying exorbitant rents through several revolts. The Tenants League was founded in 1912 and re-activated in 1920 to bring pressure for lower rents. The movements leading to the formation of the League had Anarchist origins and were set against even the timidest proposals or projects that would extend private ownership of housing to the working class (Bley, 1985).
factor for the settlement of the working class at the periphery.

The dominant pattern of production of this urban space as the locus of reproduction of the working class was definitively established between the mid-twentieth century and our day.
2 HOUSING POLICIES

The image of a merely symbolic State intervention in working class housing has been promoted, not entirely without good reason, by the majority of studies on housing policies in Brazil. Understandably enough, in view of the limited output of State units and the even more limited reach of these policies at the lower income levels of the population. Government policies however did succeed in achieving secondary goals such as the strengthening of the building industry itself and employment generation. In addition, this localized intervention pattern generally directed housing provision to key industries, where reproduction had to be guaranteed to some extent. All these outcomes have nevertheless tended to be seen as reinforcing the image of the State as playing a purely symbolic rôle in housing.

In her study about the IAPs, through which the State assumes for the first time the responsibility for urban working class housing provision from the 30s on, Farah (1983:12) argues that in contrast to "First World" countries, the peculiarity of capitalist development within the Periphery is the lack of any guarantee of the reproduction of the labour force through State intervention. At the same time it is argued that besides a direct intervention in the economy, from the 30s on, one of the elements which constitute a new pattern in State intervention is the subordinated incorporation of working class demands re-presented as social rights (Fa-

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8 Explicitly stated goals of the BNE, for example.

9 The State is judged inactive by the very narrow criterion "does it build houses?", while in fact the State should be seen as highly active and influential on the production process as a whole.
rah, 1983:18). In this way there is an incorporation of historical demands of the working class by the State—in accordance with what they are, namely, the expression of a set of social needs necessary to a new pattern of accumulation—and the presence of labour within the political arena is at last recognized.

There is in fact historical evidence that in Brazil the guarantee of the reproduction of the labour force through State intervention in housing was never posited as an immediate need for capital accumulation. Studies on housing stress precisely the other side of this same coin when they insist that the State has left the housing question systematically aside, channelling public investment into other areas, regarded as 'strategic' or 'key sectors'. But if we follow the way in which the working class settled from the beginning of the century onwards, we will always find some forms of housing provision targeting at least a skilled portion of the workforce necessary for the consolidation of industrial development as in the case of the construction of vilas at a

---

10 The relation between labour and State is regulated through three axes, labour legislation, the structure of trade unions and social welfare, the latter including housing provision.

11 The influence of working class pressure for conjunctural direction of housing policies should not be underestimated. Rent freezes, the launching of some Pension Institutes (which included housing finance), and more recently, mutual help housing finance programmes, to give a few examples, were set up to respond to workers' demands and several times preceded by strikes or public demonstrations.

12 In the sixties Brazil was still in an early stage of urbanization (see Table BR3, p.80) with more than half of the population living in rural areas. Large pockets of production for subsistence remained both in rural and urban areas, technological level low, labour largely un-skilled requiring equally low levels of reproduction and housing far from becoming a 'wage good'.

13 A sort of terraced housing organized along a cul-de-sac road.
time when slums were the predominant form of working class 'housing'.

The first IAPs (created nationwide and organized along professional categories, as mentioned earlier) were those linked to the Navy, commerce, coffee storage and transport, docks, banking, industry and public servants. The IAPs, particularly after the 40s in fact provide housing to a growing middle class, especially in Rio de Janeiro, administrative centre of the country, where the need arose for the constitution of a contingent of workers to staff a strengthened State bureaucracy.

At the end of the sixties and through the seventies, the BNH and later SFH have the important role of financing construction and consumption of housing for a middle class just emerging in the investment round for the production of durable goods started during the Kubitschek government.

So it is that State intervention in housing provision performs simultaneously a number of different roles: at the ideological level, using a 'Welfare State' rhetoric, the State assumes responsibility towards working class demands and the role of mediator through which these are expressed and met (whereas at the beginning of the century housing struggles were directed against the landlords themselves). A certain degree of legitimation of the rhetoric of housing policies is achieved through focussed intervention which does in fact guarantee reproduction in key areas (selected segments of labour and of industry). And finally, the State provides finance for housing construction and credit for its

---

14 During the first decades of this century, the municipality of São Paulo encouraged the construction of 'vilas' for workers through tax incentives and facilities for access to land. The same policies were used to encourage suburbanization, following a sanitation trend after the spate of epidemics given the poor conditions of working class quarters within the city.
consumption, which in turn organize and develop the building industry through a reasonably steady demand for housing for those income levels --the upper middle class-- which are able to take advantage of the newly opened credit lines. Table BR7, below, eloquently illustrates these points, in showing that while 65% of those households which benefitted from some finance for housing earned less than 5 Mw, those below this same income level got 80% of total finance.

Table BR7:

BRAZIL 1965-85:
STATE FINANCE FOR HOUSING UNDER SFH
According to income brackets

<table>
<thead>
<tr>
<th>Income (Mw)</th>
<th>Households (%)</th>
<th>Volume of finance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1.5</td>
<td>20.0</td>
<td>1.3</td>
</tr>
<tr>
<td>1.5-3.5</td>
<td>32.0</td>
<td>5.1</td>
</tr>
<tr>
<td>3.5-5.0</td>
<td>13.0</td>
<td>14.1</td>
</tr>
<tr>
<td>5.0-7.0</td>
<td>12.0</td>
<td>20.4</td>
</tr>
<tr>
<td>7.0-9.0</td>
<td>10.0</td>
<td>22.3</td>
</tr>
<tr>
<td>9.0-11.0</td>
<td>7.0</td>
<td>23.2</td>
</tr>
<tr>
<td>11.0-16.5</td>
<td>5.0</td>
<td>11.9</td>
</tr>
<tr>
<td>16.5&lt;</td>
<td>1.0</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Source: Nucleo de Estudos de Políticas Públicas, mimeo, UNICAMP, 1985

The bulk of the working class, however, has no option at all to enter State finance schemes for housing. Even less has the building industry any ways of producing houses profitably for the lower income population. Indeed the degree of commodification of working class housing is not dependent on capitalist relations in the building industry alone since a large portion of the population has no access to the produce of the latter.
3 ALTERNATIVE HOUSING POLICIES

The dominant pattern of working class housing production in São Paulo --self-help-- was definitively established by the mid-twentieth century and lasts to our day. Despite being basically an individual activity (restricted to a household) in terms of the administration of resources, the timing and the labour force for its production, self help accounts for about half of all housing production in Greater São Paulo\(^\text{15}\). Regional differences notwithstanding, the fundamentals of the production process in self-help are already well known and will not be described here.

From the seventies onwards, shifts towards commodification within the production process in self-help have been monitored through quite a number of studies\(^\text{16}\). These have shown that the labour force involved in the production of 'self'-built houses is not strictly familiar, nor does it work according to a barter system involving relatives, friends and neighbours. The incidence of paid labour is in fact far from negligible; half of the households living in self-built houses made use of some paid labour during construction\(^\text{17}\). Increasing recognition of the use of paid labour in self help has ended up by blurring the contours of its conventional definition, which insisted that self-help is based precisely on residents' own, and thus on unpaid, labour.

Regular use of paid labour along with market acquisition of land, building materials and finance, point to a tendency to

\(^{15}\) According to an estimate based on a 1977 survey (Metrô,1977, Origin/Destination Survey, São Paulo), 48% of people in São Paulo live in 'peripheral precarious houses'.

\(^{16}\) See URPLAN(1979) and Pasternak Taschner & Mautner(1982).

\(^{17}\) Based on a survey on self-help made in 1978 (URPLAN,1979).
commodification within the domestic housing sector (Mautner, 1987). Besides the increase of paid labour, technical diffusion in construction together with the use of new building materials also tend towards reducing necessary labour time.

Contributions to this tendency to commodification of housing from outside the domestic sector came through the way in which the State approached working class housing provision in the last decade. New housing policies shifted towards the incorporation of self-help practices into official initiatives. Attempts by the State have mainly been directed to giving technical assistance in house building (and at times even in infrastructure) using would-be owners as the labour force; offering plots with services and sometimes 'embryos' of houses (in this case through the use of building firms); providing finance for building materials; and preparing plots provided with basic services along with the organization and training of the labour force for the use of new building materials18. Although the actual scale of such attempts to implement housing policies for the lowest income levels was small, they nevertheless show the interest of the building industry and building material producers to penetrate into the enormous potential market of the periphery under the sponsorship of the State.

In a narrow sense State intervention has tried to respond to crisis situations, in a broader sense to adapt policies to development stages. In both cases these interventions ended up by pushing population which did not have access either to the housing market or to public housing from one of the three basic remaining alternatives to any other: from self-help (ownership), from slums (rent) and from favelas (self-

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18 Some of the housing programmes for the population earning up to 3Mw, here designated by their well known acronyms were: FICAM (1977), PROFILURB (1978), PROMOKAR (1980) among others (in Maricato, 1987:54).
help on invaded land)\textsuperscript{19} according to which policy was being pursued at the particular time.

'Alternative' housing programmes such as sites and services and squatter upgrading, based on self-help, spread out world-wide from the sixties onwards\textsuperscript{20}. Supported and financed by such international agencies as the World Bank, and adopted by great numbers of 'peripheral' countries, these programmes have certainly responded to different conjunctural situations in each country following however a general strategy of legitimation of the use of un-paid labour and generalization of private ownership, attaining several goals at the same time: continued absence of the State in housing provision, lowering the costs of reproduction of labour force and keeping labour clear of 'political unrest'\textsuperscript{21}.

These alternative programmes emerged largely in response to the failure of previous policies of squatter clearance which tried literally to eradicate what at the time were considered 'foci of social pathology' (marginality, crime, delinquency, prostitution, drugs and to top it, 'radical political activity'), which reflected the view of 'chaotic' growth of Third World and especially Latin American cities, consistent with the dualist and marginalist theories. This is precisely the view --which also holds that urbanization out-grows industrialization and then conceptualizes such no-

\textsuperscript{19} The proportion of these alternatives to the total of housing in Greater São Paulo is roughly 50\% for self help, 10\% for slums and 6\% for favelas (Pasternak Taschner, 1986 "Squatter settlements: the facts and the policies" International Housing Conference, mimeo).

\textsuperscript{20} Harms(1982) rescues the origins of these policies by identifying their use in crisis situations in other capitalist societies, one of the examples being nineteenth century Germany (in Ward, 1982).

\textsuperscript{21} Some of these points are taken from a paper by Licia Valladares on "Alternative Housing Policies - a flight over international literature", presented at the 1985 ANFOCS Annual Meeting, mimeo.
tions as 'urbanization without industrialization' or 'swollen tertiary sector'-- which came to be severely criticized by the dependentists during the seventies.

Ward(1982) drew attention to the important role of academic research in squatter settlements in discrediting, during the 60s, marginalist stereotypes of poverty. Pioneering studies like Mangin's in Peru (Mangin, 1967) show a tranquilizing picture of squatter settlements in which the poor usually live in nuclear families, work quite regularly and have previous urban experience, whereas other studies\(^22\) (Nelson, 1969) in Latin America did away with the idea of squatter settlements as foci of 'political unrest', replacing it with a rather more realistic view, aware of the squatters' social incorporation through their relationships with local councils, political parties and politicians.

In Latin America particularly, the Cuban revolution was an important reminder of the great gains from a switch in housing policies towards securing the poor in their settlements and Rodrigues(1972), in a sharp article on the invasion of international agencies into squatter settlements, shows how keen the US were in supporting and financing these new policies\(^23\).

The late introduction of alternative housing policies in Brazil, at the end of the seventies, is coincident with the gradual 'opening' of the military government, reinforcing Gilbert's (1982) arguments on the role of political interests as key issues for the determination of these policies. It is only from the eighties onwards, coincident again with

\(^{22}\) Nelson(1969) gives a summary of research on political behaviour of the low income population in Latin America.

\(^{23}\) Rodrigues, Alfredo(1972) "De invasores a invadidos" EURE vol.II, No.4, Santiago.
the practice of organized land invasions that up-grading and site and services policies are more effectively implemented.

It should be said that the majority of studies on working class housing provision in Brazil emphasise what the State has not done. In fact, the image of merely symbolic State intervention in housing for the low income population holds, provided it is seen against the predominant form of working class housing provision which is based on self-help in peripheral allotments. This form of housing provision transcends housing production as it performs a continuous and powerful role in the expansion and production of urban space. For this production process to occur, specific labour relations were institutionalized, a specific power structure (based on skill) was crystallized and a set of social agents were involved in production through self-help practices which have been, themselves, established, re-organized and partially monetarized over the last decades.

There is a whole range of building activities and particularly those related to the production of working class housing at the periphery which are usually included in what is called the 'informal sector'. Although we do not share dualist approaches, which oppose an informal sector to a formal sector --in fact these rather combine than are opposed within the accumulation process (Oliveira,1972)-- we will still use the term informal to designate a set of productive and social relations working outside the domain of wage relations.
4 THE INFORMAL SECTOR AND CONSTRUCTION

After a silence during the 1980's crisis, at the end of the decade, newspapers and journals started to publish on the informal sector again.

The sudden interest in this issue has its background in the paradox of a country whose economic growth in the last decade was virtually nil, has the biggest foreign debt of the Third World and one of the highest inflation rates of the planet, and which still manages huge trade balance surpluses and to keep its industry going with low level of unused capacity and high levels of employment (Alencar, 1989 p:3.1).

In fact it has also caused a hot debate about the percentage of the National Product performed by the informal sector. In order to have an idea of the size of the sector Alencar follows the "clues" left by the informal sector on fiscal, monetary, accountancy and demographic areas, choosing in a first move the comparative growth of the industrial work force in manufacture, as measured by FIESP (Federation of the Industries of the State of São Paulo), the growth of employment (economically active population-EAP) from 1981 to 1987 as given by IBGE, and the growth of the group of workers "liable to being included in the informal economy", among those recorded by PNAD (without working permit, own-account workers, non-contributors to social security and working without earning) with the following result: the FIESP estimate of a 6.4% of the work force in that period is underestimated by a factor of over three (being 22.7% according to IBGE) or even four (29% according to PNAD).

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24 Moser's (1978) review on the informal sector debates (based on results of ILO's work) summarizes the various approaches towards this sector in the seventies.

25 Apart from the meaning of the formal/informal concept, the term 'sector' is not un-problematic either (see Edwards, 1985).
In a second move, Alencar follows the 'clues' to be found looking at energy consumption. The comparison of energy consumption and the behaviour of the National Product between 1981 and 1988 is seriously at odds especially in times of acute recession (for example in 1988, when the National Product fell 0.3% while energy consumption rose 6%) as shown in Table BR8 and the corresponding graph (page 108).

Since there was neither a variation in energy unit prices nor a structural industrial change which could account for such disparity, the only plausible explanation for it is that the official National Product underestimates the real National Product in the Brazilian economy, precisely because it does not take into account the informal economy (Alencar 1989).

An estimate of the 'real' National Product (Table BR9 and corresponding graph, p.109) even if admittedly approximate and somewhat precarious, does give an order of magnitude according to which the informal economy by 1989 contributes to no less than 40% to the total national product.\footnote{Note that such an estimate is perfectly plausible in view of similar estimates for other countries, such as 25% for Italy and 70% for post-Menem Argentina (1989).}

Such an estimate is consistent with others from independent sources. The daily newspaper Folha de São Paulo in a "Series of Debates on the Crisis of the State" (12/10/89) for the support of the debates during the presidential campaign, published an article on the informal sector giving estimates which vary from US$46 billion (for 1988) according to IBGE's
Table BR8:

BRAZIL 1973–88: INDICATORS ECONOMIC GROWTH
OFFICIAL NATIONAL PRODUCT AND POWER CONSUMPTION

<table>
<thead>
<tr>
<th>Year</th>
<th>Official GNP (US$bn)</th>
<th>Growth Index 1973=100</th>
<th>Power consumption 1973=100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>128.88</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>1974</td>
<td>140.47</td>
<td>109</td>
<td>9.0</td>
</tr>
<tr>
<td>1975</td>
<td>147.82</td>
<td>114</td>
<td>5.2</td>
</tr>
<tr>
<td>1976</td>
<td>162.32</td>
<td>125</td>
<td>6.5</td>
</tr>
<tr>
<td>1977</td>
<td>169.75</td>
<td>131</td>
<td>4.6</td>
</tr>
<tr>
<td>1978</td>
<td>177.90</td>
<td>138</td>
<td>4.8</td>
</tr>
<tr>
<td>1979</td>
<td>190.68</td>
<td>147</td>
<td>7.2</td>
</tr>
<tr>
<td>1980</td>
<td>208.08</td>
<td>161</td>
<td>9.0</td>
</tr>
<tr>
<td>1981</td>
<td>201.65</td>
<td>156</td>
<td>-3.1</td>
</tr>
<tr>
<td>1982</td>
<td>203.82</td>
<td>158</td>
<td>1.1</td>
</tr>
<tr>
<td>1983</td>
<td>198.11</td>
<td>153</td>
<td>-2.8</td>
</tr>
<tr>
<td>1984</td>
<td>209.44</td>
<td>162</td>
<td>5.7</td>
</tr>
<tr>
<td>1985</td>
<td>227.03</td>
<td>176</td>
<td>8.4</td>
</tr>
<tr>
<td>1986</td>
<td>245.15</td>
<td>190</td>
<td>8.0</td>
</tr>
<tr>
<td>1987</td>
<td>252.22</td>
<td>195</td>
<td>2.9</td>
</tr>
<tr>
<td>1988</td>
<td>251.50</td>
<td>195</td>
<td>-0.3</td>
</tr>
</tbody>
</table>

1 In US$ of 1985.

Source: Alencar (1989)

Figure BR8: 'Official' PNB and energy consumption, Brazil 1973–88
Table BR9:

**BRAZIL 1973-88: ESTIMATES OF NATIONAL PRODUCT**

<table>
<thead>
<tr>
<th>Year</th>
<th>Off'1 GNP</th>
<th>TOTAL</th>
<th>(of which) INFORMAL</th>
<th>growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>128.88</td>
<td>161.10</td>
<td>32.22</td>
<td>20.0</td>
</tr>
<tr>
<td>1974</td>
<td>140.47</td>
<td>174.69</td>
<td>34.22</td>
<td>19.6</td>
</tr>
<tr>
<td>1975</td>
<td>147.82</td>
<td>161.57</td>
<td>43.75</td>
<td>22.8</td>
</tr>
<tr>
<td>1976</td>
<td>162.32</td>
<td>213.22</td>
<td>50.90</td>
<td>23.9</td>
</tr>
<tr>
<td>1977</td>
<td>169.75</td>
<td>232.14</td>
<td>62.39</td>
<td>26.9</td>
</tr>
<tr>
<td>1978</td>
<td>177.90</td>
<td>252.67</td>
<td>74.77</td>
<td>29.6</td>
</tr>
<tr>
<td>1979</td>
<td>190.68</td>
<td>275.70</td>
<td>85.11</td>
<td>30.9</td>
</tr>
<tr>
<td>1980</td>
<td>208.08</td>
<td>297.36</td>
<td>89.28</td>
<td>30.0</td>
</tr>
<tr>
<td>1981</td>
<td>201.65</td>
<td>299.12</td>
<td>97.47</td>
<td>32.6</td>
</tr>
<tr>
<td>1982</td>
<td>203.82</td>
<td>321.98</td>
<td>118.16</td>
<td>36.7</td>
</tr>
<tr>
<td>1983</td>
<td>198.11</td>
<td>335.90</td>
<td>137.79</td>
<td>41.0</td>
</tr>
<tr>
<td>1984</td>
<td>209.44</td>
<td>364.08</td>
<td>154.64</td>
<td>42.5</td>
</tr>
<tr>
<td>1985</td>
<td>227.03</td>
<td>394.82</td>
<td>167.79</td>
<td>42.5</td>
</tr>
<tr>
<td>1986</td>
<td>243.51</td>
<td>417.05</td>
<td>171.00</td>
<td>41.2</td>
</tr>
<tr>
<td>1987</td>
<td>252.22</td>
<td>418.60</td>
<td>166.38</td>
<td>39.7</td>
</tr>
<tr>
<td>1988</td>
<td>251.50</td>
<td>433.18</td>
<td>181.68</td>
<td>41.9</td>
</tr>
</tbody>
</table>

1 In US$ of 1985.

Figure BR9: Brazil 1973-88: National product/ Official and informal (est).- True GNP was estimated from 1973 onwards in line with the growth of power consumption (see previous page) less the average difference in growth rates between PC and OfGNP in the years of above-average growth of the latter (assuming no relative increase of the informal economy in those years), and assuming that in 1973 the informal economy was 20% of official GNP (Source: Table BR8).
Department of National Accounts\(^\text{27}\), to \(\text{usd}176\) billion according to "some economists" \(\text{(sic)}\)\(^{28}\).

As for a conceptualization of the role played by the 'informal sector' in capitalism we will adopt in broad lines Cacciamali's interpretation of this 'sector': basically as work of independent producers' persisting in the interstices left by the 'full domain of the wage relation' within capitalist production (Cacciamali, 1983 p:12)\(^{29}\).

\(^{27}\) IBGE estimates that \(\text{usd}30\) billion are related to the services sector (including hawkers, autonomous workers and liberal professionals), \(\text{usd}13.6\) billion to industry (small backyard industries) and the rest to other services. Non-registered production would perform 17\% of the services sector and 10\% of manufacture.

\(^{28}\) Folha de \(\text{S\&o Paulo}\) takes explicitly the 'tax evasion view' and argues that smuggling and drug traffic, manifestly illegal, should be included into the informal sector, although its core figures are said to be the autonomous workers and small firms unable to pay taxes. It argues that this non-payment of taxes by those activities nevertheless constitutes a burden to those who cannot avoid paying --big enterprises (sic) and wage labour-- which end up by suffering in double: they pay taxes to cover the public deficit and have to face competition from a sector which is able to sell their products for lower prices.

\(^{29}\) Cacciamali(1983,p:27) analyses the informal sector based on four premises:

- a- taking into account the development of capitalist production relations in a given and specific place and time, avoiding generalizations.

- b- as being a specific form of organizing labour and production, with its own peculiarities, in which the direct producer is also the owner of the means of production.

- c- as the insertion of a dynamic form of production which adapts itself within the moves of capitalist production. Its composition and role modify according to the pattern of capitalist expansion and reproduction, being consequently continually displaced and recreated to adapt to general economic conditions.

- d- the analytic distinction of the informal sector is made in order to identify the composition and working rules which articulate this production to the leading forces of our economic system. There is a definite purpose in avoiding dualist interpretations and also the usual simplistic association of informality with poverty.
The subordination of 'informal' activities to capitalist production, and the destruction and re-creation of the former by the latter, establish the flexible dimension of the informal without destroying its continuity in time. As soon as an informal activity meets steady demand it has all the chances to be captured, incorporated into capitalist production\textsuperscript{30}. Conversely, activities hitherto performed under 'fully' capitalist relations may, under the effect of a crisis or of a simple recession, be thrown back into 'informality'. A similar idea is expressed by Deák when he discusses the dialectic of the commodity form in capitalism:

\begin{quote}
Not everything can be produced as exchange value (, though). The market cannot organize a portion of social production, but it cannot organize social production as a whole. Precisely what can and what cannot be produced as commodity varies according to historically specific stages of capitalism (Deák, 1989a:2).
\end{quote}

The same holds also for wage relations. The fact that any particular product of informal labour (whether because of the particular organization of labour or because the payment for it in forms other than wages is not fully capitalist) may be captured now and may be expelled again later by capitalist production does not exclude the fact that there is an ever-present room for informal activities in general, which is however occupied by different products according to the historical development of production.

Changes in the industrial structure in the last 30 years, led by the introduction and growth of the production of durable means of consumption --made accessible to consumption through the massive diffusion of a consumer credit system

\textsuperscript{30} The expansion of the market for durable consumption goods for example, created firms for technical assistance (repairs), directly linked to the enterprises which produce these goods, destroying part of the traditional small repair shops.
and the increase of households'31 income—enormously widened and diversified the range of activities and especially those supporting production, and also those in repair and maintenance work32.

As regards the building industry itself, due to peculiarities closely linked to such widely discussed issues as those concerning its "backwardness"33 on the one hand, and to generalized low income levels on the other hand, it contrasts with the usual tendency of informal activities to follow the rhythm of change in the core industries: it resists for a long time and is less subject to change.

We will not go into the discussion of the backwardness of the building industry. Rather, we will examine how some characteristics of this industry combine and reinforce the links between fully capitalist and household production, and to this purpose some 'backwardness-issues' will have to be approached.

Generalized on-the-job training, either within the industry or through the practice of self-help and odd jobs at the periphery or anywhere in maintenance work, reproduce what could be called a "collective construction worker", which reinforces the generalized use of traditional techniques on building sites. This does not mean that there is no technical innovation or no use of new building materials in cons-

31 Family income rose although salaries remained low and even falling. This was seen as a paradox for quite a time, but is explained simply (as for instance by Faria, 1983) by the progressive entry of women into the labour force during the same period.

32 Between 1960 and 1981 the proportion of households owning a radio set rose from 62% to 80%; a fridge, from 23% to 63%; a TV set, from 9% to 73%; and a car, from virtually nil to 28% (Faria 1983 p:16).

struction at all, but rather that radical changes are difficult to introduce and to incorporate within the building sector as a whole. The separation of production and design within building enterprises further reinforce the tendency to keep to traditional techniques which make use of the widely known skills of this collective worker.

From design to production the 'collective knowledge' of workers is incorporated into production, reproducing traditional working methods and also the long established command hierarchy in construction: the partnership engineer/site manager (mestre de obras), gang leaders (apontador), bricklayers (pedreiros), and helpers (serventes). Thus, if the 'collective worker' saves investment in training and time in production methods within a building firm, he also hinders technological renovation in production (Vargas, 1989:21).

The availability of workers in the labour market (reflecting broader economic policies and regional disparities), the need for a great number of unskilled workers at the building site (33%), high turnover rates, very low levels of unionization, all contribute in fact to the resilience to change within construction and to re-imposing the rule of traditional working methods alongside low salaries.

On the other hand, the spread of new techniques from the building industry to 'informal' building production is favoured by the fact that bricklayers have necessarily to own their tools (besides of course their skills) to be employed as bricklayers which eases their transit between construction firms and working as independent producers at the periphery or wherever else.

Non-market solutions for access to housing are practiced overwhelmingly by the low income population of big urban
Table SP5:

SÃO PAULO METROPOLITAN REGION, 1977,87
Family income distribution

<table>
<thead>
<tr>
<th>Fam Inc (&lt; Mw)</th>
<th>POPULATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1977</td>
</tr>
<tr>
<td>&lt; 3</td>
<td>24.51</td>
</tr>
<tr>
<td>3 &lt; 5</td>
<td>25.08</td>
</tr>
<tr>
<td>5 &lt; 10</td>
<td>28.89</td>
</tr>
<tr>
<td>10 &lt; 20</td>
<td>14.72</td>
</tr>
<tr>
<td>20 &lt;</td>
<td>6.80</td>
</tr>
</tbody>
</table>

Average (Mw) 6.6 10.2

Mw (Current Cr$) 1106 2062
Mw (US$ (1977)) 80 29
Mw (Current US$) 80 41


Figure SP5: Family income distribution, SPMR 1987.

Table SP5: Income distribution 1977 and 1987, SPMR.- Data shown here should be assessed taking into account two important movements in the decade 1977-87, namely, a fall of average family income to about half, and an even greater fall of real Mw, to one third. As to the distribution of family income, closer examination showed that there was neither concentration nor distribution of income (Deák, in Metró,1978: O/D Survey, Preliminary Report, São Paulo), meaning that all family incomes halved during this period in real terms, i.e, allowing also for dollar inflation (in current dollars the fall is of course lesser, from US$528 to US$480 on average, while Mw in current dollars fell from US$80 to US$41).
agglomerations. Given the extremely high concentration of wealth (see Figure SP5 above, p. 114, for family income distribution in Greater São Paulo in 1987), this makes up the bulk of the urban population. Over thirty percent of the families living in the metropolitan area of São Paulo have income levels below 5 minimum wage (Mw) --and historically this proportion has been even higher (half of the population in 1977)--, as shown in Table SP5 (above, p. 114). This was the minimum a family had to earn to be entitled to state housing. These families which are obviously excluded from the housing market and the majority of those earning between 5 and 7 Mw are natural candidates for self help (either on invaded or on bought land) or renting (either in central slums or in self help made slums at the periphery), the former being the most usual housing alternative in São Paulo.

The widespread use of subcontracting in building firms (either with or without the legal registration of workers), own-account work at the periphery and maintenance work, the easy transit between building firms and own account work (helped by the necessary ownership of tools) contributes to the great homogeneity in building techniques and to the high percentage of own-account workers within the building industry. As we have already seen, the comparison of national surveys applied in households and at the work place show the great number of unregistered (and also own account) construction workers, which form the basis of a quite stable informal labour market -- stable, according to the view of the subordinated nature of informal activities to capitalist

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34 Even those few State programmes which were especially designed to supply families between 3 and 5 Mw hardly ever managed to do so, as revealed by surveys of actual buyers after construction.
production, because of the slow pace of change of the construction sector; contradictory as well, because this stability which helps to maintain the traditional organization of labour within capitalist housing production gives room at the same time to (and profits from) its reproduction within household production.
Part II

THE PERIPHERY AS A FRONTIER FOR THE EXPANSION OF CAPITAL
A FIELD SURVEY IN SÃO PAULO
Chapter 5: A FIELD SURVEY IN SAO PAULO

INTRODUCTION

Part II contains the results of interviews undertaken with agents involved in housing production at the periphery of São Paulo and focuses particularly on the small builder, in charge of a wholly monetarized provision (there is no use of unpaid labour) within housing production, in which capitalist relations of production do not fully dominate.

Three basic issues were selected for investigation and included in the schedule of questions put to all those interviewed.

1- Strategies used by builders to establish themselves in the market.

The results of this investigation include the builders' transit between, on the one hand, the conditions of self-employment at the periphery, and on the other, the condition of wage worker in the building industry; the feasibility for workers to amass a starting capital to establish themselves
as independent producers; equipment, tools, work experience, training and skilling; and finally work processes and practices.

These results allow for an identification of the range of strategies used, and limitations met by a small builder to establish himself in the labour market.

2- Channels of technological diffusion from fully capitalist to household production

The entry of new building materials into household production and changes in the labour process illustrate the modernization of the production process at the periphery. Reports of builders' work experience have shown an intense traffic between wage labour in the building industry and self employment at the periphery, and the spread of new building techniques which were the domain of the former ten years earlier.

To investigate the channels of technological diffusion I have complemented the interviews with 12 builders and the study of their construction work with reports by the owners of two building material shops and the owner of a cement block factory within the same research area.

3- Position of the various agents within the labour market.

Interviews conducted with real estate agencies, building material shops, cement block factories, tool hawkers and small builders give us an overview of the articulations between these agents in this form of housing provision.
1 METHOD OF SURVEY

a) The area. - A Southern area of São Paulo, and particularly the Administrative Region of Santo Amaro (see following pages 122-3 for map of location and site plan of the research area), was chosen for three main reasons. Firstly, at the time of its conception this research was linked with parallel work by other researchers, on other forms of housing production and this area offered examples of all those forms; secondly, this area presented the, fairly rare, occurrence of allotments and invasions side by side; and thirdly, the level of building activity was high, this being in fact one of the most dynamic regions within the São Paulo Metropolitan Area.

Federal Law 6766 (19th December 1979) virtually stopped the launching of new urban land into the market and this is especially true for low income allotments. The consequence of this legislation was to give rise to three rather different but simultaneous developments, namely, growth in density of the pre-existing allotments, the initiation of a process of substitution of low income strata of people by people belonging to the middle class, and the growth of land invasions by the low income strata, some of them highly organized.

The Environment Protection Act (1975) which attempts to preserve the land surrounding areas of water supply from predatory urbanization, worked as a kind of "reserve" for land invasions in the area chosen for our research.

We had made some early incursions in this invaded area to check construction activities. At the margins of Parelheiros Road we observed a recent growth in density and improvement in quality for new settlements. Later on, however, we discovered a place on Bororé Road which suited our purpose even
PATTERN OF LAND PRICES IN SÃO PAULO. Average according to geographical zones (rural land excluded), in Cr$/sq.m.

SÃO PAULO METROPOLITAN REGION
Position of the research area in the urban agglomeration

PARQUE RESIDENCIAL COCAIA AND RECREIO COCAIA:

Site plan of the research area.
better: in a building material shop we were informed about a very busy allotment there --Parque Residencial Cocaia-- which in fact looked like a single huge building site.

We were thus satisfied that the choice of this area for our research afforded plenty of ground for investigation of household production, small builders' activities and possibly infrastructure work, while offering also, within the same area, information about other agents working in housing production. This would allow us to make both detailed and complete case study on the building up of one peripheral allotment.

b) The sample of small builders.- The core of the survey was a sample of 12 small builders. These have been asked about their work experience, skilling, building techniques, building site organization, capital and financial assets, credit conditions, legal status at work and finally, relationships with other agents involved in construction, through in-depth interviews with pre-established scripts.

Two of the twelve small builders were interviewed in Parelheiros. They were found through personal contacts and the interviews were not undertaken at the building site. The remaining ten builders were interviewed at work on the building site. Their work activities were also recorded through a photographic report. The interviews were done between February and March 1987, right at the time of the final collapse of the Cruzado Plan\(^1\). Two months later, during the interviews with other agents, the half-finished houses still lay there as before. The owners did not manage to keep up with the increase in the prices of building materials.

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\(^1\) Cruzado Plan: a short-lived stabilization plan, described in some detail further below.
c) Other intervening agents.- The other interviewed agents intervening in the building process included:

i- Real estate agency Federal de São Paulo S/A Credit Imobiliario and its local subsidiary (retailing of Parque Residencial Cocaia), a local real estate agent (retailing of Recreio Cocaia) and a local land owner (Clarinda).

ii- Two building material shops, Rochel and Rodeio, within the research area.

iii- Cement block factory Pasil, working near the research area.

iv- Four tool hawkers selling at Largo de Pinheiros, an interchange point for people coming from the southern end of São Paulo; two tool shops, one in the city centre and the other in a metropolitan sub-centre; and one building material shop at the periphery to check tool prices.

We had trouble in interviewing owners of building material shops and cement block factories. Without the help of one of the owners of a building material shop we would not have managed to contact the other shop or the factory. The smaller building material shops refused interviews even after the intercession of their colleagues. These smaller shops sold raw materials, i.e., cement, stone and sand, blocks and some minor building stuff, and the majority produced their own blocks with manual machinery, illegally.

d) Photographic record.- Interviews were complemented with a photographic report about the research area, agents' work places and construction work of the small builders. A selection of this material is to be found in the Appendix.
2 TIME OF SURVEY: THE CRUZADO PLAN

The agility with which forms of production reorganize themselves at the periphery in answer to conjunctural changes in the economy is always remarkable. We have followed such changes during and after Plano Cruzado through the interviews made with all agents involved in the survey in 1987.

Plano Cruzado (February 1986- April 1987), originally planned to contain salaries under the pretense of containing inflation, was in fact a temporary reversal of the usual State sponsored policy of over-concentration of capital and more generally of over-privileging the elites (to use Fernandes' conceptualization). During its short existence (hardly a year long) it increased domestic demand dramatically and small firms mushroomed at a rate of over double the historical average. Reaction set in, the Plan was abandoned and the end was equally dramatic: inflation shot up, most new-born small firms went bankrupt and real wages of un-organized workers went downward again.

Plano Cruzado froze salaries and prices and the oligopolistic domains became the focus of governmental control. Salaries of organized labour had been on the rise at a yearly rate of 10% since the end of the military government and up to Cruzado Plan when they slowed down to 4%. In the industries more exposed to competition, on the contrary, hitherto stagnant salaries started to rise during Plano Cruzado -- very much proportionally to the extent labour was un-organized: 15.8% per year for registered workers, 21.8% for unregistered workers, and 42.4% for own-account workers. Within the struggle for income distribution the Cruzado Plan favou-

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2 Survey realized throughout 1987 with financial support by CNPq.

3 Fernandes(1972).
red precisely the weaker industries at the expense of the stronger ones, the oligopolies and more organized labour, and that helped to render the Plan unviable\(^4\).

To explain the construction boom at the periphery during Plano Cruzado, builders and other agents involved in the survey agreed in saying that people were investing in land and construction mainly for two reasons: firstly, they were able to plan their household budgets (due to the freezing of prices) and secondly, the drop of the monthly interest indexation from nearly 20% to less than 5%, due to the check on inflation, made it look as if their savings were yielding no return.

In fact there was a general move to withdrawal of savings from savings accounts and newspapers made much news --and noise-- about the Government’s concern and the measures it should take to contain the "wave of consumption" during Plano Cruzado. As became clear later, such a consumption peak was centred on food and medicaments... Short-lived as it was, Cruzado Plan was none the less important while it lasted for the very specific conditions it produced and much of the material collected in the survey should be interpreted against this context.

THE COMMODIFICATION OF THE MEANS OF HOUSING PRODUCTION
INTRODUCTION

As we have already seen in Chapter 4, a new pattern of urbanization in São Paulo was gradually established from the second World War onwards, through a slow but steady switch in working class housing from rent in the inner parts of the city to ownership at the periphery, based on self-help practices, which are still the major form of working class housing provision (see table SP4, p.92).

A specific aspect of this new pattern of urbanization in São Paulo is that land tenure is based on the ownership of individual plots and that the ground layout of peripheral allotments allow them to be easily transformed later into consolidated urban space.¹

Land marketing together with the distribution and extensive use of manufactured building materials (which also diminish the building time necessary) and the progressive use of paid

¹ Favelas (settlements in invaded areas) in São Paulo are usually small and built up within the areas of the allotments reserved for institutional use. During the seventies organized data on favelas showed already that particularly in São Paulo 62.3% of these settlements were made up of less than 10 units, and 94.9% of less than 100 units (Pasternak, in Blay, 1978 p.135).
labour in construction point to an ongoing move in the direction of the commodification of housing at the periphery.

Although the parcellization of what was then the urban periphery of São Paulo had already accelerated during the 1920's, a new pattern of construction emerged only after the 1950's with the extensive use of bricks which, in turn, cement blocks gradually substituted for from the 1970's onwards, together with pre-fabricated elements for roofing.

The extension of wage labour throughout the last 40 years², expanding the demand for land and for the production and distribution of building materials enormously and thereby laying the ground for the structuring of the building industry on a capitalist basis, were fundamental for the introduction of new technological standards and the re-organization of the labour process within the production of urban space at the periphery.

We will follow, below, the way in which the three main agents of the commodification of the means of working class housing production --namely, real estate agencies, building material shops and cement block factories-- established themselves at the periphery as revealed by the survey. We stress "the way in which" because during the process of getting established they managed to capitalize precisely through operating according to the specificities of land tenure, income, skills and literacy levels prevailing at the periphery.

The next Chapter, in turn, will deal directly with work relations and the constraints on the production of housing.

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² Agricultural activities excluded, the economically active population in Brazil increased approximately 4.5 times (from 6.865.000 to 30.687.000, see table BR3 for employment by industry, 1950/1980, p.80).
for the market at the periphery, following the reports of small builders, working basically on a contract basis.

1 REAL ESTATE AGENCIES

Independent of the original ownership of the land or the size of the real estate agencies involved, there has been quite a regular pattern of land marketing at the periphery of São Paulo.

Land is marketed either by local real estate agencies (whether subsidiaries of bigger enterprises or not) or by real estate agents established 'on the spot', selling individual plots in either case. One of the main sources of their gains comes from the widespread use of the practice of selling the worst plots of the allotment first and cheap\(^3\) and waiting for the local Government to provide basic services and infrastructure (as a result of pressure from the first dwellers) before selling the rest of the plots at a higher price.

Low income and literacy levels of would-be dwellers virtually determine the way in which land is offered (including marketing practices) and ultimately the way in which working class housing has been produced at the periphery. Thus the main marketing strategies are advertising on the radio, at neighbouring factory doors and on the spot, a strategy based

\(^3\) Or not unfrequently, simply given. —Games at the beginning of the century: "Find the rabbit and win a plot of land".
on oral rather than written communication, which actually enforces personal contact.

Low income levels mean that there is no market for housing produced by the 'formal' market and sold at a profit. This determines the way in which new land is incorporated into the urban area, the periphery being the very locus of this process. It also sets the conditions for the development of the building industry.

Land marketing proceeds through the sale of individual and un-built plots, where houses are either self built or erected through the contracting services of a builder, with no chance for the establishment of housing provision whereby accumulation among the productive agents could lead to the full commodification of housing. We will return to this question further below.

**Two cases of allotment at the periphery**

Builders have been surveyed during our field work, as we discovered after the interviews, on two different allotments. One of them, *Recreio Cocaia*, was being marketed by a local real estate agent, the other one, *Parque Residencial Cocaia*, by a well established real estate agency (*Imobiliária Federal São Paulo*).

These two ways of marketing land give quite a realistic view of the range of procedures used to incorporate land into the market, as well as the variety of historical forms of land tenure still surviving from a recent past.
We will start with the first one, Recreio Cocaia, where Clarinda, the land owner, was interviewed.

Clarinda is 75 years old, the land she owns was originally her father's (who died in the late forties). As she said, at the time when her father took over (tomou posse) the area "land was given, not bought". Her father used to work with an oxen cart to take pigs and chickens to sell in a nearby market (Sto. Amaro, now a sizeable Metropolitan sub-centre in a high income suburb). In addition, they grew the basic crops for subsistence. The land he owned, or rather, which he worked, did not have any legal documentation.

Some 15 years ago a real estate agent contacted Clarinda with an offer to buy the land she owned. She could not sell it for two reasons: it was not registered (not legally owned) and she did not have the resources to pay for the transaction costs and taxes. So they made a contract whereby the agent assumed responsibility for the legalization, became the owner of the land and paid the transaction costs, reserving 20% of the plots to Clarinda, that is, 30 plots. Clarinda, however, complained that in the end she had only 10 plots left.

The whole process took 10 years and during this time some people invaded part of the land. Rescuing this land was a task given to the real estate agent and we presume that this was the reason for the diminishment of Clarinda's share of plots.

Clarinda's story gives an idea of the proceedings of an agreement between a real estate agent and the original owners of land at the fringes of our cities, still living as reminders of an earlier page of their history. It is also a quite common way of getting hold of land for marketing at the very
periphery of our towns, sometimes with even worse results for the original owners.

At one side of one of the streets of what looked apparently like the same allotment we were told that it was being sold by another real estate agency. Both the local and the central agency were surveyed. We will start with the latter.

The interview at the Federal São Paulo S/A Credito Imobiliário was made with a member of the staff directly linked to the enterprise owner, the latter being an agronomist, whose family owned the land which was being commercialized.

Federal started business in 1971, buying and selling land. Soon afterwards they merged with construction firms, set up a cement block factory, financing their enterprises in two ways: (i) internally from their own profits and (ii) by getting advance payments (repasses) from the National Housing Bank-BNH in cases where the purchaser arranged credit for the house purchase. During the early eighties crisis, in 1982, the construction firms and the block factory were run down and they restricted their work again to land development and selling. At the time the interview was made, in 1986, during the construction boom of Plano Cruzado, they were planning to put the cement block factory back to work.

The most profitable activity at the Federal before the early eighties crisis was construction: they built and financed housing for the middle class market. The enterprise had a fixed staff of engineers, building masters (mestres de obra) and some bricklayers and subcontracted the rest of the building work, which used the bulk of the workforce.

The enterprise started already with a large stock of land, (which had been part of the family wealth -- patrimônio fa-
miliar) scattered among towns placed north west and east in relation to São Paulo city (Sorocaba, Jundiaí, Taubate, São Jose dos Campos, São Carlos, Araraquara). This stock of land, through successive rounds of sale and purchase, was gradually concentrated within the metropolitan area of São Paulo.

It is usual to interview real estate agencies and to be told that the only, or one of the only, allotments put up for sale at the periphery is the one you have been enquiring about. This case was no exception. Real estate agencies, even if well established in the middle and upper class market for land, tend also to work at the periphery and some of them, like local agents (corretores), deal with the illegal sale of land. So in fact, we were told at the Federal that the allotment we surveyed was the only one they had for sale at the periphery. It was legalized in 1967 which explains the surprising fact that they could launch a development, (using Federal blocks for construction) with CEF's (Caixa Economica Federal) finance, in an area which since 1975 has been under water resources protection.

Parque Residencial Cocaia was for sale from 1981 to 1982, and then again in 1986. We were told that there had been an increase of income between the first and the actual purchasers of plots. If in 1981 they were unskilled workers, in 1986 they were skilled and white collar workers. In 1985 wa-

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4 These areas were still covered with coffee or cotton plantations at the beginning of this century.

5 It is well known that many real estate agencies working with 'popular allotments' are traditional and well established agencies which work for a quite diversified market. This was the case of Cia.Lider working on the Northern outskirts of São Paulo (Brasilandia) or Lutfalla, active at the West End of the city (Hauter, 1981).
ter supply and public transport reached the area, electricity had already been provided some years earlier.

The early eighties' crisis was felt through defaults on instalment payments and some re-sale of plots. The number of defaults rose through 1983 to 1985 from 20% to 50%. The way of dealing with defaults was individual negotiation, rescheduling of the debt, deals at 0.5% monthly interest, when the bankers' rate was 15%. If, even in these conditions, the purchaser was not able to pay, he relinquished ownership without judicial interference.

During the first period of sale (1981/1982) purchasers were invited to buy bricks (produced by Federal) and two or three types of floor plan sets (approved by local authorities, building materials specified, ready to be executed) for 10x25m plots. There was also a clause requiring the use of bricks, as opposed to wood, to avoid the devalorization of the enterprise (not to look like a favela).

At the time the interview was made, the way of dealing with defaults had already changed: after 6 months of delaying payment, purchasers had to do it judicially. When we asked about the invasion of land within an area of the allotment, we were told that they were not doing much about that. The invasion was on the area reserved for institutional use, and was therefore, a problem for the local authorities.

From the agent in charge of the sale (corretor) of Parque Residencial Cocaia at the local level, we obtained new information about the relationship between the Federal and

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6 As the interest rates to be paid to the real estate agency in case of default were up to 15% lower than bankers' rates, many purchasers left their money on savings accounts receiving the current interest rate, falling deliberately behind in the payments on the debt.
local subsidiaries, marketing strategies, and requirements for the purchase of a plot.

*Federal* holds three subsidiaries to market land neighbouring the area of Parque Residencial Cocaia. The three of them work on the administration of the sales of three different allotments, owned by *Federal*.

There were some changes since the launching of the development for sale. *Federal* gave up building houses (what was left from their original intentions were 11 houses, against 1300 plots sold until 1983, and the floor plans --the same they planned to use for the houses they were going to build-- offered to purchasers of individual plots) and (after 1983) the plots halved, from 10x25m to 5x25m.

In 1986 80 plots were put for sale, and by April 1987 80% of them were already sold. There is still one block left in the allotment, now owned by the *Caixa Economica Federal*-CEF, probably due to a negotiation between *Federal* and CEF about the financing of the houses the former had not built.

The price of the square metre at the end of 1986 was Cz$800. A plot of 125sqm was priced at Cz$100000 cash⁷, or to be paid in instalments, according to either of two alternative plans (*hire purchase*)⁸:

- down payment of Cz$15000 plus 60 instalments of / Cz$1891. (US$1000 + 60 x US$126.)

- down payment of Cz$20000 plus 60 instalments of / Cz$1780. (US$1333 + 60 x US$119.)

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⁷ Or about US$ 55.-. In December 1986 the rate was 15 Cruzeiros to the dollar (see Appendix 2 for the evolution of the exchange rate through 1986-8).

⁸ Interest on outstanding debt was 11% per month. Instalment payments were adjusted for inflation at the official rate.
In fact other plans were also available, such as for 36 and 48 months, but 90% of the purchasers chose the two first options. An unofficial parcelling of the down payment was also allowed, splitting it into two equal parts, the first being paid at the moment the contract was signed and the second, one month later.

Requirements to buy a plot were:

- income tax register number,
- identity card number,
- proof of income level, and
- minimum income three times the value of the instalment.

These two extreme examples were taken in a way by chance because we were actually basing our work on the statements of small builders at work in an area. This happened to be on two different allotments whose sales were in the charge of the two afore mentioned estate agents. The examples are quite significant however, in showing: (a) how different tenures of land (some still reflecting another cycle of Brazilian economy, but recent enough to span only two generations) enter the urban land market (even the taxes paid for the plot are still rural taxes --INCRA-- as opposed to urban --IPTU); and (b) the difficulty private enterprises have in entering the housing market for low income population --even if owning the land and producing one of the basic building materials for construction, cement blocks-- given the low income level of the population. To sell them at all, Federal halved the size of the plots and the down payments.
2 THE BUILDING MATERIAL SHOPS

Two owners of building material shops were interviewed, Bene owner of a quite big shop (Rochel), and Henrique owner of a medium sized shop (Rodeio), both of them placed on neighbouring areas of the surveyed allotments. Interviews with building material shops were systematically refused. The way we managed to do them was through previous acquaintance of the surveyors with Bene. He introduced them to Henrique (Rodeio) and to the owner of a cement block factory (Pasil). Smaller building material shops refused interviews even with Bene’s intervention, most probably for fear of opening up irregularities on their accounts, and illegal backyard production of cement blocks with manual block machines.

We will start with Bene’s interview.

26 years ago all this was woods. New allotments were put for sale. What was the thing to do? to open a building material shop. We started from the very beginning, with sand, bricks and nothing more. Other building materials were offered through time. The allotments were really popular, always popular at the periphery, it is the poor’s neighbourhood, isn’t it?

Bene’s father owned a brick factory, but in Bene’s view a brick factory was handicraft:

there are few of them and the tendency is for them to disappear.

He told us he had a broader view than his father:

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9 Surveyors Ronconi and Gaboni have been working for some years giving assistance to popular movements for housing, and particularly for a state financed project of favela re-urbanization —“Recanto da Alegria”— where the building materials supplier was Bene.

10 And he was right; on the fall of brick factories and their substitution by cement block factories see below, p.146ss.
allotments mean houses, houses mean construction, and there were not enough people to support a bakery, so what was important at that stage: construction. Everybody came at weekends to build their houses.

Soon after the establishment of the shop (February 1961) they were already selling lime, cement, and timber. Cement blocks did not exist at this time. When cement blocks started to be sold they were hardly accepted: at the periphery people stuck to bricks. Assessing the timing in opening the shop, Bene said --

we caught the neighbourhood at the right time, we followed the building up of this area.

At the time the interview was made Bene had 45 to 50 employees (he started with one), one manager, and his wife working on the internal organization of the shop. He is used to keeping his employees for a long time (some of them more then 20 years). Besides management and sales, there are two different stocking areas, for small and bulky materials respectively, a fuel tank and a workshop for the maintenance of a fleet of 13 lorries for the delivery of building materials.

At the beginning, probably until the mid seventies, credit was given on trust, both on sales and on purchases. People building up at the neighbourhood used to buy building materials from Friday to Sunday (they kept the shop open until Sunday noon), they were clients and usually took the materials without paying "--look, I’ll pay next week-end", they did not have a register of clients --"familiarity stood for the guarantee of the register".

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11 There is consensus that bakeries are always a successful and profitable enterprise (good business).
Today Bene sells, either for cash or through Lojicred (a consumer credit institution widely known at the periphery\textsuperscript{12}), registers the clients and does not depend on local construction anymore:

\begin{quote}
we do not depend on the periphery, it gives a low profit. If poor people build up a house, they do not eat, rent is too high... so they do not eat, stretch a course of blocks, cover them with tiles and live under it. This is the truth.
\end{quote}

As noticed by Bene there is an interdependence between some cement blocks factories, sand pits (\textit{portos de areia}) and building material shops related to the distribution of these products. Cement blocks or sand bought from the shop, depending on the amount ordered, may be delivered directly by the producer, saving labour, transport and materials for both enterprises:

\begin{quote}
as cement blocks at the periphery use as little cement as possible, they are very fragile, the less you touch them, the better. Loading blocks is a lot of work, and a lot of loss.
\end{quote}

In the case of cement blocks, if they are delivered directly from the factory to the client, the factory answers for their quality:

\begin{quote}
\footnotesize
\textsuperscript{12}Lojicred is widely known at the periphery of São Paulo. In fact it does not deal with finance directly, rather it mediates (offers services) between clients and the funding institution proper. The building shop receives cash from Lojicred and the client pays the instalments to Lojicred. The latter does all the paper work relative to the credentials of the clients and to the approval of credit.

To be entitled, clients must present: identification card, IRS card, proof of permanent home, proof of income (for wage earners), worker's card and Water or Electricity Authority bill. Upper limit of instalment payments is 30\% of the client's wage.

Lojicred gets 10\% on the invoice, so that purchasers pay this amount over, on top of interest. Running monthly interest rates at Lojicred were 6.51\% in 1978, when those of private finance institutions were 3.5-6\% and those of Caixa Econômica Federal (a State agency) around 1\% (Mautner,1981).
\end{quote}
if there is a complaint from the client and the factory does not replace the ware, we do not pay for the delivery (as we are the contact with the client) and stop working with them.

As a last question Bene was asked what he thought about housing policies. His answer was --

they never go further than promises isn't it? as many others I have heard since my birth. We do not have parties, only promises.

The second interview, with Henrique, owner of the Rodeio showed many similarities with the one done with Bene:

... this area was a desert, new allotments were being opened, and I found it promising to get myself established once my shop would be placed on the road leading to the sand pits. On the other side woods, on this side machines had just finished the opening of streets for a new allotment. To start my business I had to convince somebody at least to open a bar. I also changed the place of the bus stop, and put it in front of my shop, for clients to get the bus as soon as they get out of the shop.

Previously Henrique used to work on deliveries, he owned a lorry and was linked to a services cooperative (Cooperativa Mixta do Butantã):

the associate did not have to open a firm, the coop took over necessary incumbencies against a tax. This scheme was used by many colleagues working with deliveries (in the lorry branch). These coops gave support for many which started to work on trade with no conditions to open a firm, particularly helping with book keeping.

Also Henrique started his shop selling a few building materials (mainly granite chips and sand) and expanding his business in keeping with the growth of the area in density and consequently the demand for basic (bricks, tiles, timber) and raw building materials (sand, pebble and cement).

Henrique started business with his brother (the shop's name was at this time Henrique & Gil Ltda) and used to stay in
the shop while his brother worked on deliveries, and two workers helped him loading and unloading the lorry.

At the time of the interview Henrique was not working with his brother any more; five employees worked for him and his daughter, the latter on management and internal organization of the shop and Rodeio had a fleet of 3 lorries for deliveries.

Henrique told us that besides local clients he also sells, like Bene, to building enterprises. At the local level his clients are workers with low income, and more than once he has financed parts of the houses for them:

the client bought bricks, built up the walls and did not have conditions to cover the house, at this stage I stepped into the story and supplied him with timber, tiles, and eventually with windows and doors, sometimes it was quite difficult to get my money back.

Later on, probably in the mid-seventies as in Bene’s case, Henrique started to work with Lojicred, passing the debt over to this private finance institution.

Building material shops at the periphery usually give their clients assistance on the quantity of building materials to be bought:

not all our clients have financial conditions to contract a builder (empreiteiro) and to calculate the number of sqm to be constructed and so on... they want to know how much they will expend on the foundations, walls, how many metres of cement slabs, pipe system (plumbing), etc... and we enter again with the assistance.

On the other side, -

if a builder steadily brings clients to my shop, he is offered a hammer, a trowel, a pencil, some building materials he needs for his use, or any other tool. I do not consider this a commission, but a courtesy (brinde).
As in the case of Bene, **Rodeio** has the same kind of deal with cement block factories, some orders are delivered directly from the block factories. Building material shops in this area used to hold monthly dinners to discuss prices or other problems between themselves, like cement shortages or problems with paint delivery. (They managed to bring the sale’s manager from a known paint producer to discuss distribution problems with them.)

Both Henrique and Bene have invested their savings, besides the expansion of their business, in property as well. Bene owns a smallholding where he breeds horses, and Henrique has built up another shop (780sqm, which he has not moved to, on account of a row with his brother). This building is now rented to a bank (*Banco de Minas*). If there is no interest on the bank’s side to renew the contract, Henrique plans to expand his business and move into the building.

Even if these building material shops can not be considered family enterprises, both of them have members of the family working for them. In Bene’s case, his wife, and in Henrique’s case, first his brother and now his daughter.

The assets of each shop show the difference in the way investments were made in each case. **Rochel** invested in equipments, modernized the fleet of lorries, incorporated into the shop a maintenance office for the fleet and fuel supply, and has plans to computerize the administrative sector. **Rodeio** instead remained smaller, less equipped, investing in the construction of a new and quite bigger building for the shop, rented at the time of the interview to a bank.

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13 It was at first surprising to find that at the periphery computers were specially valued. But in a context of low literacy and numeracy, computers’ ability in simplifying operations does guarantee less errors in the making of bills and invoices and giving change.
In the mid-seventies there was a switch from credit in trust to private finance firms (Lojicred is the most used) to buy building materials --"through the sixties there were no problems of interest rates and inflation". At the time the interviews were made, Bene sold 50% at one month's credit, 30% cash, and nearly 20% through Lojicred.

The close relationship between building material shop's owners and builders (if constructing their own houses or contracted for it), and the long praxis of assistance given to inexperienced self help builders give the shop owners a thorough knowledge of the bottlenecks in construction activity at the periphery. It is not usual to see new building materials on offer at these shops, only now and then a new product appears which is definitely price-competitive with a traditional one\(^{14}\), in which case it spreads rapidly and becomes itself 'traditional'. On the other hand there are facilities offered for construction, saving time and skill at the building site, such as pre-assembled reinforcing structures for beams or pillars, and granite chips sold and measured in buckets (the measure used to mix it up into the mortar).

The sale of pre-fabricated elements (produced in the backyards of building material shops) may spread out at the periphery if there is some recognition of the time and skilled labour it saves on the building site. It is interesting to note that this practice has been already incorporated in recent government projects involving the construction of houses in response to popular organized movements, where families join the construction work (pre-bound bars for reinfor-

\(^{14}\) See the substitution of bricks by cement blocks in Cement Block Factories p.115ss.
cement and also pipe kits for wet areas are assembled and prepared by separate gangs to be installed on each unit).  

3 THE CEMENT BLOCK FACTORIES

We will follow next, the way in which the cement block, one of the most widely used building materials at the periphery of São Paulo, is introduced on the 'popular' building site.

In the mid-sixties brick factories were classified as "industries", whereby they became subject to taxes. At the same time, the sites on which they settled were reached by the expansion of the urban area and they were faced with the rise in land prices. Brick making needs much more land than block making so the industry was very sensitive to land rent. Also in the mid sixties during the construction of Ilha Solteira (a huge hydro-electric plant) Besser Machinery was imported from the USA giving rise to the production of cement blocks. From its installation until at least 1978 this industry did not have to pay taxes (IPI taxes on industrialized products). By that time Brazil was already producing viable machinery for making cement blocks even though

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15 Project of Valo Velho under the responsibility of Cohab (housing cooperative) being built up by the popular movement of Vila Remo assisted by architects with a local headquarter, financed by the State.

16 Brick making besides the extension of land needed for its production was an activity usually run by whole families and some helpers, with an extremely long working day.

17 For the substitution of brick making by cement block factories see Lacerda Campos & De La Torre (1978).
their productivity was lower than that of the American models.

Brick factories were practically swept out of the periphery by this competition and in the mid seventies the landscape in the outskirts of São Paulo was already becoming grey. At the same time small backyard factories producing cement blocks with hand-operated machines mushroomed at the periphery. The precarious way in which those blocks were produced resulted in their even more precarious quality.¹⁸

Long distances, unpaved streets, and no room for storage in the small building material shops at the periphery hindered the distribution of cement blocks, produced industrially in big plants. Blocks for the periphery tended therefore to be made at the periphery. Backyard domestic block production tends to be incorporated into the building material shops' backyards (still with hand-operated machinery), while a lesser part of it is left to small firms which have managed to establish themselves as independent enterprises. The reasons why they have become established lie mainly in the existence of a kind of "captive market" for peripheral production because of transport costs, the competitiveness of cement blocks (in relation to a brick production now almost in extinction) and in the guarantee of a steady demand.

In my field, demand is endless, you can never produce enough. That means the more you produce the more you sell. I never built up stocks. As soon as you finish the cure the product is sold out.

Humberto (Pasil)¹⁹

¹⁸ One family reported during a survey in 1978 that their block factory went bankrupt because on one occasion, having forgotten to pump water to the tank, they could not water the blocks during the cure and lost the whole production batch.

¹⁹ But I was informed two years later (in 1988, by Ronconi) that Pasil went bankrupt. The reasons were a combination of yet another recessive conjuncture and bad administration.
The history of the establishment of one of these block factories, named Pasil, illustrates the process we have just described in general.

Pasil started in 1976, on a rented site, with two hand-operated block-making machines, producing 80 to 90 thousand blocks per month. It had 22 employees at the time it was sold to a new owner in 1983. The new owner had sold two petrol stations in order to raise the funds for the purchase. As soon as he took over, he made an investment in new, automatic machinery, bought the land on which the factory stood, as well as a number of delivery trucks. A year later he purchased yet another automatic machine and the year after that a hydro-pneumatic machine, deactivating the old machines.

Although he was new in this industry, he knew that cement block factories were a "hot business" and had wanted to buy this one for 4 years. When he did buy it, he contributed mainly in the capital and management: lacking experience with block production he invited the first owner to work with him and to provide the technical knowledge. At the time of our survey Pasil was producing 600,000 blocks per month with 3 block machines, seven cement mixers, and owned 8 delivery trucks.

At the time when the last machine was bought, the new owner had already acquired enough experience to enter into a joint venture with technicians of the machine factory introducing changes in its production. The hydro-pneumatic block machine
was a result of the exchange of information between both branches of business.\footnote{Seventy percent of Pasil's workers were registered. The rest of them, the less skilled ones, usually worked for some months and quit. They had the higher turnover rate: "they work in construction, as bricklayers' helpers" (Humberto/Pasil). The workers who operate the machines are the most skilled and the best paid; they were "inherited" from the first owner, and trained inside the factory.}

Even though one cannot really generalize from this specific case study, it is still quite significant that a steady demand for some products can at the same time support production in undercapitalized firms, attract investment from other branches of industry and even contribute for the development of new technology.

4 TOOL HAWKERS

Tool hawkers, in fact, do not on first glance fit into the scope of the research on the small builders, and there was no clue about a possible direct involvement they could have with monetarized housing production at the periphery. I was told about their existence at Largo de Pinheiros\footnote{Largo de Pinheiros is a bus terminal, an interchange point for most buses coming from the southern parts of the city to the centre.}, and knew that they also used to sell tools in other strategic points of the city. Anyway, as they sell the same tools builders usually buy at building materials shops, I became interested in the way they operate and who they are. Here is what I found:
Four tool hawkers were interviewed at Largo de Pinheiros. All of them have been living for more than 13 years in São Paulo and migrated from the North East. Except for one, Emanuel, they make their living on this job (he started working on it full time only after retirement). Tools are sold from 5 in the morning onwards to workers on the way to their workplaces.

Valdemar worked as a watchman on a building site, as a bricklayer, and started selling tools at the site. He used his FGTS\(^{22}\) to start business. Emanuel worked for 26 years as a supervisor in a transport company, and after retiring started to work full time selling tools (in fact he had been in this job a long time, at free markets at week ends). Quinca started to work in São Paulo as a bricklayer's assistant and switched to the tool business one year later. Cicero worked on fatigue duty (hard cleaning), as a watchman, borrowed some money and started selling tools.

The switch from wage to autonomous work may be summarized by Cicero's statement:

\[
\text{If one starts to work for wages, you know you will get nothing, with wages you can't meet ends, you starve, so who works on the streets... one day you earn something, the other day nothing, but it is better than to work for wages. I haven't got a skill, I don't read, if I take another job it will be hard cleaning again and I can't live on it. The only thing to do is either sell on the streets or go back to the North to work in agriculture.}\]^{23}

They buy the tools in building material shops at a discount. They cannot go directly to the factories because they buy just a few at a time. The use of stalls requires a licence from local authorities, but if they cannot get one then they

\[\text{\footnotesize\textsuperscript{22} A sort of reserve fund workers get on being fired from a job.}\]

\[\text{\footnotesize\textsuperscript{23} Monthly earnings of the tool hawkers averaged about Cz$7000 (September 1987, when the minimum wage was Cz$1969,92) or about US$107.}\]
use a kind of box, easy to handle, allowing them to run away from the fiscal authorities and to avoid their wares being seized.

Se a ronda lhe pega,
Leva logo p'ra triagem,
Passa pelo teletipo,
E a pior desvantagem.
Sujeito a 59,
artigo de vadiagem.

José Francisco de Souza

For a bricklayer to work, besides the skill itself, he is required to own the basic tools for construction work. On the other hand, it is well known that construction workers have longer average of working hours per day than in other industries. These two factors are important for the establishment of the tool hawkers:

We sell tools for the building workers, and the peak hour for selling is the early morning, they do not have any other time to buy them during the week ... some of them would not enter a shop anyway, they are shy. There they have to ask for, to wait, [but] not here, they just come and touch everything, choose, and feel at ease.

A check on prices was made to see the difference of prices in shops situated at the periphery, a metropolitan sub-centre (Pinheiros), downtown and tool hawkers. The latter were found to be selling most items cheaper which were sold in the shops.

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24 "If the patrol gets you/ Swiftly takes you to the sorting/ You go through the teletype/ The worst misfortune./ Under clause fifty-nine/ You are in for vagabondage." --Popular rhyme about the hard life of hawkers in São Paulo (from Luyten, 1981).
THE SMALL BUILDER:

MONETARIZED HOUSING PRODUCTION
AT THE PERIPHERY
7 THE SMALL BUILDER:
MONETARIZED HOUSING PRODUCTION AT THE PERIPHERY

Introduction

In a survey conducted in 1977\(^1\) concerning the agents involved in the production and distribution of working class housing, a hitherto unknown agent was discovered at the periphery undertaking either specific tasks (well and cesspit builders, plumbers, etc) or construction work proper, as a contract builder. The labour market for housing production at the periphery seemed to be wider and more stable than had been supposed. Our 1987 survey at the periphery focused specifically on the work of this contract builder.

As pointed out in the Introduction to Chapter 5, one of the issues included in the schedule of questions to the builders was the "feasibility for them to amass a starting capital to establish themselves as independent producers". We thought at that time that following the activities and work relations of this agent would unveil forms of economic and social organization at the periphery pointing to a transition

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\(^1\) The results of this survey, granted by CNPq and elaborated by IPT/FAUUSP are to be seen in PASTERNAK TASCHE, Suzana, MAUTNER, Yvonne (1982).
area between petty commodity production and small capitalist production.

As we will see, the results of the field work show that both the way the small builder is inserted into the labour market and the product of his labour are so manifold as to defy categorization, but, for this very reason, they also offer an exclusive view of labour relations at the fringes of capitalist production.

According to labour law, employers and workers are both subject to a wide range of regulations which set out their obligations and benefits with respect to the State.

When we say fringes of capitalist production we are in fact identifying labour practices which are not organized under the predominant relations between capital and labour, and which do not, and can not, abide by these regulations. Workers still try to follow some labour regulations, in an ef-

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2 In order to situate the small builder in an English context we may refer to Ball (1988:44). "Non-capitalist enterprises predominantly are very small. Most are non-capitalist in the sense that they do not make profits and/or no-one is directly employed by the enterprise in question. Some are individual, or small gangs of, workers who sell their labour services, and share out the proceeds among themselves". Ball associates the petty commodity producers in England with the sale of labour services for small-time repair, maintenance and improvement frequently operating in the informal economy or by employment contract with capitalist building enterprises. Petty capitalists, in their turn, seen as an extension of petty commodity producers, do employ only a few workers and participate with them in building work. They do operate in the same spheres as petty commodity producers, use similar practices, but can operate at a larger scale because they are able to advance a certain amount of capital. They are common in speculative house-building.

The small builder working at the periphery in São Paulo would figure somewhere between the two categories described by Ball, in that the range of their activities extend from the simple sale of their services — whether in isolation or in gang partnership — (petty commodity production) to the sale of services which also employ wage labour (contract building) through to building whole houses on a plot to be sold or rented on the market (petty capitalist production) or, as is common, some combination of all of these forms.
fort to have access to some State benefits (basically health services) to guarantee their own reproduction, trying again and again to enter the regular market. There are many ways to do so, as we will see in the case of the small builder; strategies which try to combine a higher income with some degree of social security.

The small builder operates in a variety of working schemes at the periphery, the most common of which are summarized in the table below.

<table>
<thead>
<tr>
<th></th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
<th>(E)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>individual</td>
<td>own account</td>
<td>partners’ team</td>
<td>partners’ team + helpers</td>
<td>small employer + employees</td>
</tr>
<tr>
<td></td>
<td>own account</td>
<td>worker</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>worker helpers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>payment for</td>
<td>payment for</td>
<td>payment for</td>
<td>payment for</td>
<td>payment for</td>
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<tr>
<td></td>
<td>the product</td>
<td>the product</td>
<td>the product</td>
<td>the product</td>
<td>the product</td>
</tr>
<tr>
<td></td>
<td>by the costumer</td>
<td>by the costumer</td>
<td>by the costumer</td>
<td>by the costumer</td>
<td>by costumer</td>
</tr>
<tr>
<td></td>
<td>helpers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>time (hours)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the first case (A) the builder works on his own. He contracts the construction of a house and finishes it without help. In the second case (B) he uses helpers for simple tasks. In the third case (C) he works in partnership, and both partners are own-account workers. In the fourth case (D) the partners use helpers, as in the second case. The last case (E) is the only one in which there is subordination of labour in the wage relation, although he still works mainly for a contract and thus does not produce commodities properly speaking. There are also isolated cases in which

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3 Two of the builders interviewed have worked for a small firm, and another two tried to operate their own small firm and gave up. They could not maintain a constant flow of work to pay taxes.
the builder works, as in the first (A) or second (B) cases, on a plot of his own for sale or rent.

These many different ways of working are in no way successive steps in the work history of a builder. Among builders any of them may have worked in many of these schemes, in any order, and this work may also be simultaneous or alternate with wage labour.

Although all small builders present themselves as own-account workers (*trabalhadores autônomos*), and define thereby their condition as non-wage workers and their autonomy to accept building contracts, they occupy different positions regarding their legal situation.

They may simply register as own-account workers, paying for health services and retirement. But the most widely used strategy to be entitled to health services is regular employment either for a few months (in the building industry or any other industrial branch) which covers health security for the whole year, or else sustained regular employment together with contract work in construction.

The feasibility of many of these schemes is based on the widespread praxis of partnership, and this for two reasons: it helps maintain the continuity of work at least for one of the partners, (whether through the working day or over the year), and avoid the use of wage labour (and the payment of the taxes associated with it).

There is no continuity across the different schemes of work presented above, nor do these cover all possible kinds of work arrangement. They co-exist in space and time at the periphery, complement each other and always in flux, their combinations produce intermediate arrangements.
Lack of capital, unstable work conditions and illiteracy, allied to low consumption levels, hinder the establishment of capitalist relations of production, but also promote the spread of petty services which support the small builder's shortcomings.

Whereas building material shops, block factories, real estate agencies do establish themselves as capitalist enterprises at the periphery, construction work does not manage to organize on a capitalist basis. If the room there is for non-commodity production, the domain of these builders, is due precisely to the lack of profitability for capitalist enterprises to operate (at the periphery), how indeed can these small builders, with no capital at all, succeed --however hard they try-- in establishing themselves as profitable building enterprises? In this way, therefore, they keep trying and failing, or succeeding and failing after a while, in an incessant move between the various interstices left to them at the fringes of capitalist production.

Whichever the scheme they work in, construction workers at the periphery are basically divided into two categories: the small builders making their living on the basis of contract work, with an intermittent (if at all) relation to the State through the payment of social security for health benefits; and the helpers, working on an extremely casual basis with no access at all to health benefits and working per hour on the simplest building tasks.

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4 A typical case is the small shop of despatch services, writing up contracts, bills of quantities, keeping accountant bills for the payment of taxes and so on.

5 There is no credit line operating at the periphery for building activities, the only one to operate there being specifically for the acquisition of building materials.
To enter in some detail into the way in which the small builder operates we used basically their work histories and the work practices related to the different steps and skills necessary to undertake building 'contracts'. But, before we go through the results of the survey, some issues should be raised.

The interviews were made in the aftermath of the *Cruzado Plan*, which was a privileged time for construction work at the periphery of São Paulo, as mentioned earlier.

Pictures of the informal market taken at a determined point in time and space have to be carefully analysed so as not to take transitory for permanent situations. The subordinated nature of the informal to the capitalist economy, the creation and re-creation of informal activities originated in the capitalist expansion pattern, makes it hazardous to try to find a proper pattern for the 'informal'.

What we may say already, though, is that at the time the interviews were taken, the results were highly consistent with secondary data and confirmed by different agents of housing provision which were also interviewed, as we will see in what follows.
1 THE WORK HISTORY OF THE SMALL BUILDER

Among the small builders who were interviewed none were born in São Paulo. They came mainly from Minas Gerais, Ceará, and Bahia and all of them had rural origins. The causes presented for their migration, coming either on their own or with the whole family, anticipate already in the fifties and sixties the decline of the agrarian subsistence economy. Many meeiros6 with ever greater subsistence problems and fewer perspectives, working on either unproductive plantations or cornered by the expansion of mono-cultures (scarcely labour-intensive plantations) emigrate; put in their own words:

the preference of the landlord/boss is for cattle rather than us"... "fields (roças) we used to plant... the landlord has taken and put cattle instead" (Toninho). "... a place very short of money offers no condition to stay... we worked on others’ land as halfers (de ameia) ... they started to plant coffee and there was no land left to plant other crops... (Israel).

To give an idea of what was happening in the State of Minas Gerais in the seventies when Israel came to São Paulo we quote Mineiro(1989):

Among policies taken by the State, three had a strong influence on the change of production relations in the region: a modernizing agricultural policy of the government creating the National System of Rural Credit after '65, characterized by the offer of credit with fixed interest rates, privileging firms with a modern and dynamic profile; SUDENE7 with agro-industrial projects; and the policies stimulating reforestation. The effects of these policies were felt through a sudden land valorization and speculation, and the appropriation of great extensions of 'free grazing lands', putting an end to 'common land'. All of these are factors which limit the room for small production schemes. The reduction of the possibilities of autonomous production was followed by an offer of jobs by the new firms (p.4).

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6 Literally: 'halfers' for they pay half their produce to the owner of the land as rent.

7 SUDENE: Superintendency for the Development of the North-East Region.
Mineiro also quotes a report by the Planning Secretary of Minas Gerais (SEPLAN/MG, 1984):

In the North East of Minas Gerais the expansion of wage labour in the mid-seventies is mainly due to the entry of reforestation firms and cattle farming projects. This is the most important trend within this area, and it ends up by disarticulating the previous forms of production, in terms both of land rights and labour relations. The result is not only the expulsion of the small rural producer (small proprietors, free holders, posseiros) from the land, but also their absorption [sic] by capitalist firms (p. 5).

As the migrants arrive in São Paulo, the search for a job is usually linked to the recommendations and activities of the first contacts established: relatives, boarding colleagues (colegas de pensão), casual acquaintances, or street advertisements for a position.

Among the small builder's work stories, a fact which calls for attention is the frequent alternating back and forth between the building industry and manufacture with also frequent simultaneous working in both. Half of the builders entered the labour market through the building industry, varying only their legal status (registered or not) in relation to the job; one third of them started working in manufacture, mainly as metal workers, the rest worked first in commerce and services. Given the qualitative approach of our survey, more important than numbers are the practices perceived about the ways in which the small builders establish themselves within the labour market.

Some of them tried to make their living working in manufactures and gave up because they could not see any prospect of reaching better positions:

He who hasn't got tuition, to work in manufacturing doesn't pay, the salary is low and it is difficult to get promoted. If you work properly, if you are
### Table SP6:

**SÃO PAULO METROPOLITAN REGION, 1985**  
**CONTRIBUTORS TO NATIONAL HEALTH SERVICE BY INDUSTRY.**

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>TOTAL</th>
<th>Registered at NHS (%)</th>
<th>Un-registered (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufactures</td>
<td>2044 884</td>
<td>1827 716 89.4</td>
<td>217 168 10.6</td>
</tr>
<tr>
<td>Building Ind</td>
<td>374 826</td>
<td>219 315 58.5</td>
<td>155 511 41.5</td>
</tr>
<tr>
<td>Trade</td>
<td>898 761</td>
<td>586 369 65.2</td>
<td>312 392 34.8</td>
</tr>
<tr>
<td>Services</td>
<td>1248 333</td>
<td>580 065 46.5</td>
<td>668 268 53.5</td>
</tr>
<tr>
<td>Other(1)</td>
<td>1892 320</td>
<td>1658 748 87.7</td>
<td>233 572 12.3</td>
</tr>
<tr>
<td>Total</td>
<td>6459 124</td>
<td>4872 213 75.4</td>
<td>1586 811 24.6</td>
</tr>
</tbody>
</table>

Source: PNAD(1985):220

(1) Includes: agriculture; other manufacture; ancillary services; transport & communication, government; and other.

### Table SP7:

**SÃO PAULO METROPOLITAN REGION, 1985**  
**EMPLOYMENT RELATION BY PERSONAL INCOME.**

<table>
<thead>
<tr>
<th>BRACKET ($Mw)</th>
<th>TOTAL</th>
<th>Wage earners (%)</th>
<th>Self-employed (%)</th>
<th>Employers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;. 5</td>
<td>230 830</td>
<td>147 813 64.0</td>
<td>82 574 35.8</td>
<td>443 0.2</td>
</tr>
<tr>
<td>.5 &lt;i&lt; 1</td>
<td>622 108</td>
<td>521 442 83.8</td>
<td>98 751 16.0</td>
<td>915 0.1</td>
</tr>
<tr>
<td>1 &lt;i&lt; 2</td>
<td>1571 389</td>
<td>1369 509 87.2</td>
<td>197 354 12.6</td>
<td>4 526 0.3</td>
</tr>
<tr>
<td>2 &lt;i&lt; 3</td>
<td>1059 791</td>
<td>960 025 90.6</td>
<td>95 681 9.0</td>
<td>4 085 0.4</td>
</tr>
<tr>
<td>3 &lt;i&lt; 5</td>
<td>1252 128</td>
<td>1026 785 82.0</td>
<td>185 055 14.8</td>
<td>40 288 3.2</td>
</tr>
<tr>
<td>5 &lt;i&lt;10</td>
<td>1028 337</td>
<td>790 790 76.9</td>
<td>165 694 16.1</td>
<td>71 853 7.0</td>
</tr>
<tr>
<td>10 &lt;i</td>
<td>571 381</td>
<td>392 342 68.7</td>
<td>69 743 12.2</td>
<td>109 296 19.1</td>
</tr>
<tr>
<td>N.A.</td>
<td>43 856</td>
<td>28 449 64.9</td>
<td>9 977 22.7</td>
<td>5 430 12.4</td>
</tr>
<tr>
<td>Total</td>
<td>6459 124</td>
<td>5237 155 81.1</td>
<td>905 829 14.0</td>
<td>236 836 3.7</td>
</tr>
</tbody>
</table>

Chap 7: The small builder

polite, if you don't mess around, and don't answer to your superiors, you
could eventually get a promotion (Israel).

Others were fired at the onset of the last crisis, as Toninho was in 1980 after working seven years as a metal worker. Yet others entered directly into the building industry and remained there. The majority of them however, either the ones who had always worked in the building industry, or the ones who switched from manufacture, performed alternately as wage labourers or own-account workers in construction.

Constant switching between manufacture or the building industry --which is called by the builders "civil construction" (construção civil)-- and self employment at the periphery is in fact a strategy used by the builders to maintain a link with the welfare system, without having to register as own-account workers, to have basic health services granted. The simultaneity of a stable job in manufacture, and an odd job (bico) in construction reflects the low salaries in the former. Toninho and João Batista are metal workers from 14:00 to 22:00, and construction work partners for Benê and Mariano respectively, during the mornings.

The assumption we had made during the formulation of the research, namely that the construction worker could be the same self-employed small builder in his spare time and more definitely in case of his unemployment, was demolished by the result of the interviews. The building industry is known to have the longest working days of all industries and this does not leave any room for extra jobs (see Table SP8, p.163). Toninho has

two neighbours working in a construction firm, as wage labourers ... they can't work in bicos (odd jobs), they only work for the firm proper... they have their salary, it is low, it pays the work they do because they work many extra-hours, they take odd jobs.
Neither is the small builder working at the periphery necessarily an unemployed construction worker. Frequently they come from entirely different quarters: Toninho himself, for example, was a metal worker. He came to São Paulo in 1973, from Minas Gerais, bought a plot of land in 1977, and as he says:

"could not pay for construction, so we started laying some bricks ourselves, to make a shelter to 'hide' the family"

During the eighties' crisis he was fired and built up a

"small saloon... gathering some 'pinga' (sugar cane brandy) bottles"

He worked for three years in his shop expanding its functions to include those of a grocery. He went bankrupt and then he tried building, with some friends working as own-account builders. At the end of 1984 he enrolled again as a metal worker, without leaving construction work, done during the mornings, as a partner of an own-account builder (Bené), pensioner of the CMTC (Municipal Company of Collective Transport).
We were told by some of the builders (Toninho, Helio, Israel) that the beginning of the 'career' of a small builder is often closely linked to the construction of their own house, whether or not they had previous experience in construction:

... and then I started in construction. I made my shack, since the poor don't make a house, isn't it? Three rooms at Grajau. I didn't want to pay someone else, so I did it myself. From there on I didn't stop. I sold this house, bought a plot in Jardim Iporanga and built up a house with 4 rooms and bathroom; all nicely finished. As I finished my house a colleague asked me to give him a hand. After that we started to get more work to do (Israel).

... each house (you build) works as a visit card (Mariano).

If a house is properly constructed and well finished it may bring new contracts in the neighbourhood, which is in fact the headquarter, the local basis to build up the network of social relations necessary to the establishment of a small builder. These relations, which work as potential source of new clients, include in the long run not only the clients themselves, but also other agents such as local real estate agencies, building material shops, block factories and other agents, as seen in the previous Chapter.

According to the interviews there is a constant flow of workers between the 'informal' and the fully-capitalist forms of employment in construction. What favours this mobility is the knowledge of basic skills in construction and the necessary ownership of tools in this profession as soon as a builder reaches the category of bricklayer (pedreiro) as a wage worker.

What are the reasons, however, as reflected throughout the interviews taken with small builders, for the strong tendency to pass from wage labour to self employment (and some times to combine them).
Working in agriculture, in their place of birth, even if not owners of the land they worked on, the builders felt they had control of their line of work. Work in the factory, as soon as the migrant arrives, with no skills at all, starts at the very bottom of the hierarchic ranking and is under a direct supervision. Self employment is therefore seen as a re-conquest of their own working pace:

Then you enter a factory and it looks as if you are in a prison. You have to be there every day at 7:00 am ... at 11:00 am lunch time... every thing has to be done in the right time, but not here (working as an autonomous small builder) ... (Mariano).

I prefer to work as a contractor (de empreitada) (Milton).

I have worked in a lot of factoriess as a metal worker and didn't stay in any of them. I used to ask for the bill, to leave the work place, to be fired, because my suffering was too much pressure and I didn't like to be bullied around... so this was my problem, and my thoughts pulled me to a job were I could feel free, loose, under open sky, in the same way as I was brought up (Helio).

I do not like to work as a wage worker, to use the work-card (bater cartão) straight on... (J.J.Pereira).

I prefer to work on my own, but with a wife and child you need to have INPS (health service) and that's why I'm working for wage. If I could I would work independently, free...(João Batista).

There is consensus among the builders interviewed about the preference for own-account work. Besides the advantages of a self-determined pace of work, the advantage of a higher pay was also mentioned, compared to work as wage labourers in construction or in manufacture. In fact the earnings of own-account workers can be about double those of wage workers.

A builder’s earnings can be determined in a variety of different ways: per square meter, per day, per week, or a fixed amount for building a whole house.

Helio (Cz$300 to Cz$400) and Toninho (Cz$350 to Cz$380) told us that builders charge from Cz$300 to Cz$400/sqm; Israel (Cz$400 to Cz$450), Reginaldo (Cz$500) and Jovino (Cz$300 to Cz$400) charge from Cz$300 to Cz$500/day. João Batista, in
his turn, gave us the price for the construction of a house: Cz$3,000 unfinished, and Cz$6,000, with the finishing included. Rafael gave still another way of charging building work: Cz$2,000 to Cz$3,000/per week. All of them agreed about the pay for helpers: Cz$100/day.

Further, Jovino gave elements for the conversion of all those units measuring wages: a first stage of a house at the periphery has no more than 50sqm and it takes a builder three months to construct it, working 5 to 6 days a week with one helper.

Taking into account all these different forms of payment for construction work, labour costs of a 50sqm house in early 1987 were between about Cz$24,000 and Cz$30,000, and the earnings of a small builder, consequently, between Cz$8,000 and Cz$10,000 a month. At the same time, a worker employed in the building industry would be paid Cz$15 to Cz$17/hour in manufacture work (Israel), or about Cz$4,000/month.

On average, therefore, a small builder can earn as much as double of that which he would get as a wage worker, either in the building industry or in manufacture. None the less, these different work relations and corresponding forms of payment co-exist at the periphery without either of them becoming dominant.

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8 At the real exchange rate of about Cz$30 to the dollar (official rate was about Cz$22), this was US$270-330 a month.

9 Surveys on the 'informal sector' in Colombia, indicate a slightly higher average income in this sector if compared to the 'formal'. But in this comparison the length of the working day (longer within the informal sector, albeit less intensive) and social services are not taken into account (Mathias & Salama, 1983 :66-9). This argument is used by the authors to de-characterize the informal sector as a means of regulating the formal sector via a 'reserve army'. 
2 PRODUCTION RELATIONS IN HOUSING PROVISION AT THE PERIPHERY

Small builders and their clients share practically the same low income levels, and thus they both become particularly vulnerable to the frequent and sharp conjunctural changes which tend to occur in the Brazilian economy. We followed up the effects of one such change during and after the Cruzado Plan through interviews with all the agents surveyed.

The co-existence of capitalist relations of production, mutual help and barter practices in a state of poverty, where low literacy levels, precarious health and early ageing predominate, build up the contradictory context of housing provision at the periphery. Solidarity practices however, rather than being remnants of 'pre-capitalist' relations, are instrumental for workers' attempts at their own insertion into capitalist relations of production. Such attempts are seriously hindered by conjunctural economic fluctuations and by 'personal limitations'. If on one hand the income levels both of those who try to establish themselves and of those others who hire their services is so low that any economic change closes enterprises down, stops building work and unemploys builders; on the other hand, the low level of literacy is one of the most eloquent signs of 'personal limitations':

It is not easy to control 22 men if the comrade (himself) does not read and write, but one of them was literate, I've put him to be the gang leader.
(apontador) to control the time the gang spent working (Jovino, who took three houses to build at the same time).

The intricate network of relations woven among the agents interviewed show how great the need is for them to follow a mutual support strategy in order to have a chance to establish themselves in the market, and also how their limitations impose upon them the need to offer and use ever renewed type of service for a changing market.

To exemplify the way in which agents relate to each other within this form of housing provision, we will follow the whole process from the point of view of the builder.

To bring every day life into the analysis, and thereby also the concrete conditions in which the small builder lives and works at the periphery, we will quote parts of the description and an interpretation of the symbolic meaning of the term pedago by Magnani (1984:137-9, quoted in Chauí 1987:69-70):

The constitutive elements of pedago are two: a spatial component to which corresponds a determined network of social relations.

(....) it is the place where people live which ties them up, allowing the establishment of personalized and enduring relationships which constitute the basis of the particular identity produced by the pedago. For the society and institutions (...) a person is identified by the identity card, voting card, work permit, (...) Within the pedago, however, the fact that someone is unemployed does not mean that he is not still the son, colleague, or chap of such-and-such (...). To belong to a pedago means to be recognized in any circumstances, which implies abiding by certain loyalty rules (...). We can see in this way that the periphery of the big urban centres does not constitute a continuous and un-differentiated reality. On the contrary, it is divided into territorial and social clusters defined through rules, signs, and happenings which become charged with signification because they are the very matter of social relations. Comparing the periphery with neighbourhoods occupied by other social classes, it is easy to evaluate the importance of the pedago to the lower income layers. In opposition to the upper layers - where the ties which enlarge the sociability of the nuclear family are mainly those established through professional relations - a population subject to
Chap 7: The small builder

continuous changes in the labour market and precarious life conditions is more dependent on a network of relations based on neighbourhood, kinship, and origin ties. This network ensures the vital and cultural minimum which ensures survival, it is within the space ruled by these relations that associative life develops: leisure, exchange of information, religious life. It is, ultimately, where everyday life is woven.

If it is important to insert the results of the survey with small builders into the wider context of the building industry in order to capture the concrete dimensions of their conditions of production, just as important is to characterize everyday life at the periphery to help to comprehend both their own conditions of (social) re-production and those of the people for whom they work.

Following Chau'i's (1987) path to interpret 'popular culture', two central concepts will be appropriated from her work to deal with the production of the built environment at the periphery which reflect cultural patterns embedded in specific production relations:

1- Gramsci's hegemony concept: "... hegemony is always a process. It may not be seen as a system or a structure except in analytical terms. ... In praxis, hegemony never can be singular. Its concrete structures are highly complex and above all (and this is crucial) does not exist only passively in the form of domination. It has to be renewed, re-created, defended and modified and is continuously resisted, limited and altered, challenged by pressures which are not its own" (Williams 1977:112,113 in Chau'i 1987 p:22).

2- Ambiguity, which reflects at the same time the resistance and conformism of popular practices in relation to the hegemonic culture. "Instead of considering the 'popular' now as ignorant now as authentic knowledge; now as backward, now as a source of emancipation, it should be more interesting to consider it as ambiguous, made up of ignorance and wisdom,
of backwardness and the desire for emancipation, able to conform when resisting, able to resist when conforming. Ambiguity which determines it [popular culture] radically as logic and praxis which develop under domination¹⁰ (Chauí 1987:124).

In the same way as 'popular culture' is not considered in opposition to hegemonic culture, the periphery should not be considered in opposition to the city centre. The very way in which it is produced depends on practices and social relations which at the same time reproduce and escape urban norms, labour legislation, and the 'formal' production process proper.

Lack of capital both in production and distribution and poor consumption levels weave the ambiguity of social relations which at the same time support and compete with each other, which try to be capitalist even while reproducing non-capitalist social relations.

Now we come back to further details of the concrete conditions in which the small builder operates at the periphery. To exemplify the way in which agents relate to each other within this form of housing provision, we will follow the whole process from the point of view of the builder.

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¹⁰ In Chauí's words: "the word 'ambiguous' does not enjoy a good reputation. Synonym of uncertain, undetermined, dubious, twofold, it suggests lack of precision from the point of view of theory, and lack of liability on the moral plan/level. (...) It puts against each other alternatives, dichotomies: clearness and distinctness of ideas and things impose that they be this or that. Never this and that at the same time and in the same relation" (Chauí, 1987, p.121)
The contract

To contract work, a builder has to be aware of current practices on his branch of activities. Apart from the necessary knowledge of skills and ownership of appropriate tools he is the one who organizes the whole production process, from design to the finishing. If the flow of money is continuous he is in command of the pace of work at the building site.

To start working either a spoken or a written contract is made with the owner (concerning labour costs); the latter demands knowing a third person to write it up.

Contracts are made for labour costs, and do not include building materials. If the person wants to include building materials, another type of contract must be done, taking into account future price rises (Marinho).

The agreement between small builders and clients is based on a bill of quantities, where building materials and labour costs are stated. If it has to be written down, usually an acquaintance or some 'firm' has to do it, as few of those interviewed were literate.

Technical knowledge and training

To build up a house the contractor is responsible for the whole work, from foundations to the roofing. There is however a division of the construction into stages: the first one is building up proper (obra bruta) which includes basically foundations, masonry and roofing, the second one the finishing. Two different builders may be contracted for these stages.

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11 We have not visited any of these firms, but according to descriptions we got they are quite small and frequently work irregularly.
I use to do plumbing, finishing, floor finishing, doors etc, but then charging another price, different from building up the walls and the roof (Erasmo).

To finish the first stage the builder needs to have experience in all basic construction skills: marking out (and laying down foundations), bricklaying, carpentry, joinery, roofing, and the use of reinforced cement for the structure of the house. Besides, if he is a 'good professional' he also works on finishing, plumbing, and electric wiring. An eventual lack of knowledge of some particular skill has to be made up by colleagues who assume specific jobs under his command. He is also responsible for the payment both for his partners and helpers.

Although many builders have a quite solid experience, (the majority of those interviewed have been in this job for more than 10, 15 years) their reports reproduce 'technical knowledge' in their own peculiar way, as with respect to mixing up cement, sand, stone and water to make concrete, reflected in some examples below.

The basic proportion for the ingredients taken for concrete (trago) is usually 1:3. Let us follow the reports:

Israel : 1 tin of cement, 3 tins of sand and 3 of stone.
Marinho: 1 bag of cement, 3 wheelbarrows of sand and 2 of stone.
J.José : 1 bag of cement, 3 tins of sand and 3 of stone.
Erasmo : 'almost' 1 tin of cement, 2 tins of sand and 2 of stone.

Some use a 1:4 proportion as Jovino (possibly the more skilled of the interviewed) does:

Jovino : 1 tin of cement , 4 tins of sand and 4 of stone.

(He added that when he was working for an engineer he used the proportion 1:3.)

Reginaldo: 1 wheelbarrow of cement, 4 wheelbarrows of sand and 4 of stone.
The statements about water quantities vary a lot among builders:

If you put too little water it will form 'worm-holes' (caruncho), when you beat it, it won't reach the form edges properly. If you put too much water, any crack you have, water escapes and washes the cement away (Marinho).

Water has to make the concrete become soft and smooth, hard concrete makes holes and infiltration on the slabs (Rafael).

Water, you add until it is good to be worked with, it has to be very soft (Erasmo).

Builders like Jovino knowingly use a poorer concrete mix, 1:4, building at the periphery, other builders use it this way simply because many builders do it this same way, or because it is cheaper, others still think they are using a 1:3 mix, but in fact describe a poorer mix. The usual bad quality of concrete at the periphery is due both to being a poor concrete and to the amount of water used in the mixture which ends up in 'worm-holes' if in the proper measure (for the lack of 'beating up' [vibration]), or weakens the concrete when the cement is washed away by excess of water used in an attempt to avoid the 'worm-holes' (see Picture 6:3-6, Appendix, p.227)

What is interesting to note is the distance between the original pattern (overheard from 'formal' knowledge) which they suppose they are using and their actual practice. Thus, the 1:3 concrete proportions are maintained using different units such as bags, tins, or wheelbarrows.

Another example of this was the re-interpretation of a water proofing technique. A thick black polyvinyl sheet was used, meant to protect a house's foundation against water infiltration. The sheet is the same as that 'normally' used, but improper setting of it resulted at times in collecting water into the house rather then keeping it out.
On the other hand, the lack of appropriate hand-tools for the hard work required in house building, with no machinery available at all, is frequently made up through the adaptation of tools available on the market or by the production of entirely new ones, better suited for their specific work conditions (see Photographic Record, Pictures 2:36-40, Appendix, p.211).

Besides the ability to build up a wide network of relations, success in getting established as a builder depends on his skills. There is in fact the pride of knowing how to do things, and the valorization of practical knowledge of what has to be done on a building site.

Builders gratefully mention those who introduced them to their skills (usually master builders or engineers). They make a clear distinction between engineers who only sign projects and the ones who in fact pursue a professional praxis. We have already seen that there is a long tradition of the combined engineer/master builder. As it is not allowed for the builder to be responsible for projects, he depends on the engineer to practice his profession for buildings over 70sqm. An engineer whose work practice is limited to the drawing board or to administrative tasks, with little contact with the building site relies on the builder's know-how for construction work. It is not unusual to meet cases where on the same building site there are builders with far more knowledge in construction than their engineers:

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12 There is no need for technical responsibility in projects up to 70sqm of floor space.

13 Milton Vargas (1989) describes the effort of a Brazilian building enterprise in raising productivity through Taylorist rationalization methods combined with worker's participation in discussions about the administration of the building site. One of their complaints was the lack of ability of engineers for technical support of productivity. One of the measures taken by the administration
In my days tuition was not everything, because procedures were taken into account, but not today, today tuition is everything. Even if the bloke has no capacity, but went through his studies, he thinks he can rule (...). The building firm S. had an engineer. I would never swap what I know for what he knows, (...) He had a row with me (...) and told me to stay in my place (Caldeira 1984, in Chaui 1987:176).

Builders' statements show clearly the respect they have for the knowledge of the praxis in construction. Workers do not object to instruction as such (on the contrary, they see it as a way of social ascent), what they do object to is instruction as a source of domination (see Chaui, 1987:176), particularly those builders, who work under the supervision of someone who knows less about practice but earns more than they do for 'academic' reasons. The distance between 'production' and 'execution' acquires an ideologic character through the qualification of the former. Technical/scientific domination is clearly perceived and criticized:

In each firm you work you can see: these blokes, only because they have a bit more of reading, how much do they earn? (...) And the poor helper, who works like a horse, how much does he earn? That is not nature, chap...

The project

There are basically two ways to make the project of a house: either by the owner or by the builder. In the first case the owner presents the project. In the second case, "if the owner doesn't know how to do it" it is done by the builder. In both cases the project should be registered and approved by the local council. There are cases still in which the builder constructs the house with no project at all, they do the 'scratch' (risco). The risco, is the marking up with the agreement of the owner, a kind of design on the ground. That is why so many self-builders hire a builder at least for the

was to break the hierarchy engineer/master builder and to give the command according to competence.
foundations: the latter includes, in fact, the project for the house.

I do a project myself, if it is too complicated I have to find an engineer to do it. It is better to have the project. If you don't have it you have to post-register it (get an habite-se) and it becomes more expensive and complicated (Israel).

I use to make a first draft, the owner gives it to a draftsman, and takes it to the council to be 'registered'. I know the restrictions: 5 meters in the front for the garage, 4 meters in the back, and on the side you have to leave 1.20, but it is better to leave 1.50 meters (Milton).

The project is made in accordance with the owner's wishes. The right thing to do is to take the engineer to the site to have the drawings of the structure of the house done. Then you have to take the project to the 'State', check it and then you may start construction work. If the owner doesn't want to do it this way, he himself has to draw the 'scheme'. He may have a problem if it is not registered (at the council). People use to make houses without a 'scheme' here. In Rio (de Janeiro), I only used to work with 'schemes' confirmed by the State engineering" (Marinho).

The builder draws the options for the owner, and introduces the owner to the engineer to have the project made. The engineer only signs the project if he administers the site. The owner is responsible for the register at the council (Jose Joao Pereira).

When it is a big building the owner enters with the project, the engineer with the responsibility and the builder with labour. To build smaller houses, I talk to the owner, I see how he wants things done and I do a draft, everything is small, the plot is small... I do not work with, as they say, mutual help, with people helping. I never work with families, I don't like it" (Rafael).

Channels to get work

Builders usually know basic regulations regarding the location of the house within the plot, and what is needed to have a legalized building site. It is quite common for them to have straight contact with an engineer. The partnership engineer/master builder, or architect/master builder is an
old tradition in construction, as reflected in Rafael's statement: the engineer/architect enters with the responsibility and the master builder with labour.

Architect Kneese de Mello, my godfather, I worked with him for 10 or 12 years (...) we exchanged ideas on the drawing board. He used to say --- 'Pio, how is this, how is that, how will you do this beam? I found it great, because he used to ask my opinion to see the way I would answer. (...) I used to construct for him, to look after all the buildings he projected. (...) I was a contract builder (empreiteiro), I was his contract builder'.

Building services are contracted in many ways: by an engineer, directly by the client, through a real estate agent, with and through a partner builder, and by building firms.

When I get something to build up from the engineer, he answers for security, control, and quality (...) we share the price given to the owner, and if I need the help of another worker I pay it from my part of the share (Helio).

I have worked with many engineers, with one of them for 12 years, I work with 'engineer's measures'. He was an engineer, but he went as far as taking a trowel to lay a row of bricks, and even 'resisted' for some time setting tiles (Jovino).

I have already worked with 'mended' projects. You have to work with one paper on the top of another. As you see, they (engineers) also make mistakes. At the end, nobody knows nothing. They say - "I know, I guarantee". They don't do it at all (Erasmo).

I usually work with a colleague of mine, Benê. Benê takes over the contracts (Toninho).

At the moment I'm working as a gang leader (encarregado) for another builder at Chácara Flora (a high income district not very far from where he was working during the interview) (João Jose).

14 After an interview with Pio Bitelli, born in 1910, son of an Italian immigrant who came to Brazil to work on the Paulista railway. Scared with an epidemic, having seen dead workers being thrown into the river (they were building up a bridge), he fled to São Paulo and started to work in construction. Pio learned with him, and after a short passage on the Liceu de Artes e Ofícios, he started to work having a quite long career with important architects working between the thirties and the sixties (see also p.55,fn15).
A colleague of mine opened a construction 'firm'. I pay monthly for this firm and they call me when they have building work to be done (Reginaldo).

An engineer working in a real estate agency near here usually calls me whenever there is work to be done, he knows the way I work and trusts me. He used to make the bill of quantities for me, and to write it down with the typewriter (Jovino).

The payment

Agreements for the payment of building work are commonly made with the contract builder, the more frequent way of doing it is to give a percentage in advance, to pay weekly, every two weeks, or monthly during construction work, and to complete it when the work is done. The builder on his turn pays his helper weekly. For that he always maintain a reserve, and even if the client fails to pay him, he usually does not fail to pay who is helping him.

Building materials

Building materials are bought by the client, although it is the builder who says what to buy and sometimes where to buy. As already mentioned, in the case (which is not very usual) where the builder is told to buy building materials two separate 'contracts' are made: one for labour and one for material costs. As there is no kind of widespread advertising system to inform clients directly, it is interesting for both building material shops and builders to be on good terms: builders may recommend a shop, and the shop's owner in return gives him the tools or building materials he needs.
If a builder buys frequently in our shop, we give him a trowel, a hammer, or some building material he needs at the moment. We do not consider it a commission, but a courtesy (Henrique, Rodeiro's owner).

 Builders also maintain a link with cement block factories. As we have already seen, blocks may be bought directly from the factory. At the end of the Cruzado Plan, when there was a generalized shortage of cement, cement block factories sold (although at higher prices) cement bags for closer clients.

The builders' legal situation

Among the builders interviewed there are very different means for their inclusion into health benefits. One of them is to have a fixed job concomitant with construction, or to have an intermittent job to guarantee health services for the time he spends working in construction. The other way is to work as an own-account worker and to pay a social security tax for the right to health services. And there are still those with no kind of legal status, no register and no health service. Those who are only linked to the health service have no access to retirement. A strategy we found already in 1976 and again in 1986 for having some reserve either in hard times or for retirement is to invest in land. Many builders mentioned having bought (some of them were still paying the instalments) plots of land.

I remained unemployed for a time, I almost entered a firm again, but as I do not like to be a wage labourer, to check in and out of work (bater cartão), I wondered if I shouldn't sell or rent one of my plots of land (I had four at this time). But eventually, I took some odd jobs and from there on I've been working continuously (João José).

Two builders mentioned having tried to set up a firm (Israel and Milton), both of them closed it soon after; without contracts for a time, they could not keep on paying taxes.
Construction is an accident prone branch of activity. The intention of being incorporated into the system of Social Security and National Health Services benefits, was vividly present among the builders interviewed. A few of them registered as own-account workers and started paying the appropriate fee, but most of these had to give up after a while for lack of work (they could not keep on paying the taxes). An alternative strategy was then to take on jobs as wage labourers for a minimum of two months in a year, with the main purpose of being protected by free Health Services for the whole year. This is a way builders found of having some social benefits, getting at the same time a higher income and keeping a proper pace of work.
CONCLUSION
You don't have rich people here, we are all workers...

In the same way as the tendency to the generalization of the commodity form creates different forms of wage labour, it also induces the production of a fragmented, uneven space.

Chauí's (1987) essay on popular culture provided a valuable insight into the specificity of social relations which support the production of the built environment at the periphery. Indeed we re-encounter in the domain of the production of urban space both those characteristics referred to by Chauí, namely, the hegemony of capitalist relations of production on the one hand and on the other, the ambiguity of social practices which in their very attempt at abiding by socially legitimized rules, constantly breach and re-create them.

The result is a built environment which, although produced on clandestine allotments, with irregular labour and precarious technical knowledge, and at odds with urban legislation, reproduces an urban tissue ready to be incorporated into the city.

The State qua regulatory instance is perceived as an institution hovering above social relations. Some of its benefits
are appropriated, many of its regulations are cheated, but the reference is always maintained.

Illegal allotments are far from following the basic legal requirements for being put up for sale but nevertheless their design does not fail to follow the traditional form of urban design. Should they strictly follow the legal requirements for being sold they would certainly be out of reach to the low income population; but the closer they come to traditional standards, the better chance they have of being reached by urban services.

The precise meaning of the social concept *periphery* in São Paulo unveils in fact an historical *production process* of urban space which has been at work concomitant with the internal extension of wage labour.

In São Paulo *periphery* has a specific meaning. It reflects the dual view which *common sense* attributes to urban space. Geographically it means the city fringes. For urban sociology, it is the place where the poor settle, in contradiction to the structured and *finished* central parts of the city. There are exceptions, of course, and higher income developments can also be found at the city fringes, as well as slums in decaying inner areas of the city -- but they would never be identified as *periphery*.

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1 Not to forget that a common condition in purchase contracts is to prohibit building wooden shacks to avoid debasing the settlement and its being taken as a *favela* (both by purchasers to-be and local authorities).

2 This corresponds to the stage in which the main source of the extension of wage labour was internal migration as opposed to a previous stage of importation of European labour (Chapters 2 and 3).
To avoid a fragmented, purely geographical or sociological approach\(^3\), rather than starting from any definition *ex-ante* of the concept of periphery, throughout this study the concrete process taking place at what is known as *periphery* has been considered as one of the starting points for the production process of urban space. It is in fact a place where the poor live, *socially segregated* and with *low land prices*, but at the same time a *changing* place, always reproduced on new extensions of land, whereas the older peripheries are gradually swallowed up by the city, occupied by new dwellers and re-organized by capital.

The term 'periphery' and its implicit duality is not imposed upon those living in it at all. The term is widely used within the periphery itself, and it is clearly perceived by its producers as an uneven appropriation of urban space:

...you don't have rich people here, we are all workers; the ones who work in commerce, they are shop keepers there.

...there, is the city of the rich, with mansions, high rises with 30 storeys where the rich live, here live only workers.

Sharks live in big (deep) water, if not he suffocates. Little fishes can't swim in deep water... they (sharks), stay in deep waters and there they rule. If you enter, they swallow you. They can't live here, they get stuck in shallow waters\(^4\).

The predominance of an extensive stage of accumulation is clearly reflected in the low levels of reproduction it re-

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3 Among these approaches the geographical is the most obvious for the periphery's position in relation to central areas and the sociological tends to follow a 'marginalist' bias, via 'urbanization without industrialization' ('swollen services sector'). There have also been some attempts to incorporate the economic dimension into the discussion, indicating that periphery may be a locale of lowest differential rents as in Bonduki & Rolnik,1979.

4 Quotes taken from interviews with dwellers living in the allotments surveyed by Bonduki & Rolnik (1979).
quires (in terms of housing as well as education and health, not to speak of nutrition). Brazilian income levels and concentration are an eloquent enough illustration of this.

Researching to elaborate a 'Plan for Social Development' named Brazil year 2000, Jaguaribe (1986) established a 'poverty line' (up to 2Mw) using 1984 data, subdividing poverty into three sub-classes as follows:

BRAZIL: CLASSES OF POVERTY

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miserables</td>
<td>13.4%</td>
</tr>
<tr>
<td>Indigent (1/2 to 1 Mw)</td>
<td>22.8%</td>
</tr>
<tr>
<td>Poor (1 to 2 Mw)</td>
<td>25.0%</td>
</tr>
</tbody>
</table>

totalling 61.2% of Brazilian population. It is perhaps not surprising that such a stage of capitalist development, in which poverty can be divided in three different degrees, has been frequently termed 'wild capitalism'.

Within the conception of hindered accumulation the development of capitalist relations of production in Brazil have reproduced a deep class divide which materializes among other things in very low subsistence levels of the working class. In the same way as labour is practically produced (undernourished, illiterate, etc) according to the development stage, conditions are also created for practices of resistance which emerge as much in strictly political forms of organization as in more generalized social practices of everyday life, so eloquently revealed along with all its contradictions by the interviews at the periphery.

This study has set out to explore precisely the universe beyond the formality of capital within construction, and to

5 As proposed by Oliveira (1977).
unveil its wider articulations across the boundary of the fully-capitalist areas of production.

With the bulk of the labour force working for salaries which barely secure the requirements of reproduction, it is not surprising that housing was never able to enter the 'subsistence basket' as a commodity to be purchased on the market. The effects of this are clearly felt both at the level of housing production proper --the building industry-- and the production of urban space.

The building industry itself is paradigmatic in showing the iron circle which, through its internal wages structure, prevents the access of its own workers to housing as a commodity. The absence of the building industry from working class housing production (which is practically left in charge of the workers themselves) leads to a peculiar form of production of urban space.

Although following a fragmented pattern, discontinuous in both time and space, the predominant production process of urban space in São Paulo could be pictured as a sequence of three layers, the first two consisting of labour covering and preparing the ground for the third, made up of capital.

In order to be covered by the first layer of labour, land has first to be made a property. A set of individual plots are offered for sale, summing up to a 'clandestine allotment'. Instalments are calculated to be compatible with prevailing low wages, and profits are achieved retaining some land for later sale at higher prices. To allow for construction to take place, real estate agencies provide the sub-division of land into plots and open (unpaved) streets. A number of houses are built by owner builders using varying amounts of paid labour on a scale beginning with self-help
and ending with contracting labour for the whole construction work. Within this range unpaid labour still dominates in the 1980s.

As soon as a number of houses are occupied by owners in neighbouring allotments, demand for infrastructure is made either through collective petitions or organized social movements (becoming especially intensified before elections).

The second layer of labour corresponds to the response of local government to such pressures by extending infrastructure into these allotments. For this to happen the latter have to be 'legalized'. The legalizing process involves, in principle, checking whether the allotments follow prescribed urban rules⁶. Since they never do, other procedures are followed, such as 'public pardons' or 'amnesties' which end up by 'legalizing' whole areas of the urban periphery⁷.

The extension of infrastructure into peripheral areas (basically lighting, drainage, pavement, and water supply) paves the way for the entry of capital --the third layer--, in a process which may take 5, 10, or 20 years, according mainly to locational factors, for these areas to be transformed into fully urban space.

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⁶ As regarding size of plots, open spaces, institutional use etc.

⁷ Since local government has no means --or will-- to prevent illegal allotments, measures like amnesties are adopted to regularize the situation of occupied plots, and for people to have access to urban benefits. "Amnesties were decreed in 1953, 1962, 1968, 1972 and 1979, and brought benefits mainly to the real estate agencies involved with clandestine allotments. (...) Amnesties have in fact other implications for the local population as well, since they bite directly into its already meagre wage: to the instalments for the plot, local owners will have to add the payment of property, land and services tax, collected by local government after the amnesty is given." (Rosmary Kupferer, In Pasternak Taschner & Mautner, 1982:83).
Plots withheld speculatively in the early stages are now ready to be put up for sale at higher prices; small groceries, little bars (botecos), backyard industries are replaced by supermarkets, bakeries, larger industries and so forth, in a process of gradual mimicking of 'officially' structured urban space, which eventually ends up by hiding the very way in which it was produced.

This mimicking process of popular allotments into consolidated urban space starts with its original 'design' which, even though far from following basic legal requirements, does keep to the traditional form of urban design. Houses are constructed as close as possible to 'aesthetic models' of middle class districts. Thus they are simultaneously reproducing and escaping urban norms, under production relations which again both reproduce and escape labour legislation and the 'formal' production process proper. Public pardons and amnesties end up by legitimating the results of this production process and allowing for the entry of collective services and facilities. Meanwhile, throughout this same process many of the original producers are expelled, doomed to start the first layer of labour towards urbanization again somewhere else.

Capital has requirements to settle on urban ground, and the periphery meets such requirements after a first layer set through 'pure labour' is sanctioned by the State through a second layer of collective labour.

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8 The results of a survey in five peripheral allotments between nine and thirty years old show a gentrification rate never below 1/3 of the plots. The more consolidated of them (opened up in 1951) showed a gentrification rate of 87.1% (Bonduki & Rolnik, 1979:79).

9 One could even conceive of an analogy of these layers of labour at the urban level with layers of national capital which, by creating an incipient market for new products, lay the ground for the establishment of foreign capital for new industries.
In this way the result of the production of use values, first through individual labour (which produces houses), and next through collective labour (infrastructure provided by the State) metamorphoses into exchange value, constituted as definite portions (properties) of consolidated urban space controlled directly by capital.

We could say that given the specificity of social relations in building production at the periphery we are forcibly led to the otherwise unexceptionable conclusion that production relations can not be dissociated from the totality of social relations which support them. At the periphery it is particularly true that the form of production cannot be seen except under the form of reproduction.


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Appendix

PHOTOGRAPHIC RECORD
MONETARY INDICES
These following photographs are a selected sample from a more extensive collection prepared by two field work researchers: Reginaldo Ronconi helped by Ricardo Gaboni. They interviewed the construction workers on the building sites, and followed in detail the work procedures throughout the construction of selected units.

Helia Pereira interviewed and photographed the tool hawkers.

Eleanora de Lima organized the raw material of the photographic record according to broad subjects defined in the field work research project.
1 THE PERIPHERY: THE LANDSCAPE

1 General view, of the survey area surroundings.
2-3-4 Peripheral residential construction using high declivity invaded land on route to the survey area. Two storey units on small plots produce quite high density levels.

5-6-7-8-9-10 Residential construction within the survey area -note that the first public service to arrive is electric light. Gas canisters for cooking are distributed by trucks and bought individually by each household. Note the flat roofs usually made with pre-fabricated block and cement slabs and the widespread use of concrete blocks for the walls.
11-12-13-14-15-16  A new housing typology at the periphery: two storey houses and absolute privatization/enclosure of the household plot. Compare with picture 6 or 2-3-4, where neither gates nor front walls are seen.
17 Advertisement for the contracting of building work: bricklayer (*pedreiro*), contractor (*empreiteiro*).

18-19-20 Israel, Mariano and Jovino, three of the interviewed small builders.
2 Tools

1. Collection of tools which a bricklayer has usually to own to work either in the building industry or as an autonomous worker: claw hammer (martelo), scale (metro), square (esquadro), wooden spirit level (nivel de bolha), plumb line (prumo de face), pliers (torquês), pencil (lapis de carpinteiro), blade saw (fita de serra), cold chisel (talhadeira), trowel (colher de pedreiro), line (linha) and mason's hammer (marreta).

2. Claw hammer, chisel (formão), pencil and hatchet/small ax (machadinha).

3. Screw driver (chave de fenda).

4. Claw hammer (martelo).

5. Chisel (talhadeira) and mason's hammer (marreta).

6. Scale (metro).

7. Pliers or gripping tool (torquês).

8. Square (esquadro).
9 Plasterer's board (desempenadeira) for special finishing as used for example to set tiles. Made by the builder.

10 Plasterer's board for large quantities of cement, used mainly for brick laying. Made by the builder.

11 Plasterer's board for rough mortar. Bought at the market.

12 Plasterer's board for fine finishing mortar. Made by the builder.

13 Idem.

14 Plasterer's board for fine finishing mortar. Bought at the market.

15 Trowel to set tiles. Adapted by the builder.

16 Idem.

17 Trowel.
18 Set of digging tools that a builder working in the periphery has to own for the construction of foundations: soil pincers (*cavadeira*), shovel (*pá*), and hoes (*enxada e enxa-dão*).

19 Hoes (*enxadas*).

20 Idem.

21 Spade (*vanga*).

22 Shovel (*pá*).

23 Narrow spade (*vanga*).

24 Soil pincers (*cavadeira*).

25 Auger/hoe drill (*broca*).

26 Auger's/hoe drill blades (*lâminas da broca*).
27 Plumb line (*prumo de face*).

28 Idem.

29 Builder's line.

30 Hand made reel to wind line for levelling.

31 Reel in use.

32 Steel saw (*serra de fita*).

33 Pipe wrench (*chave de grifo*).

34 Rubber gloves.
Appendix: Photographic record

35 Pick (picareta).

36 Pick adapted for digging water wells.

37 Bar bender (chave para dobrar ferro).

37a Bar bender with adapted handle to ease its use.

38 Crow bar (pop. 'pé de cabra').

39 Idem, made by the builder.

40 Steel saw (serra) made by the builder.
41 Paint or food cans, used to measure quantities of water, stone, sand, etc, and to transport concrete for short distances.

42 Paint cans (lata)

43 Wooden handle adapted to ease the transport of improvised cans.

44 Clear plastic hose-pipe for levelling (sufficient quantity of water in the clear hose-pipe indicates comparative levels over short distances).

45 Wooden ladder made by the builder.

46 Banch support used for scaffolding.

47 Wheelbarrow used to transport all sorts of heavy loads.
3 THE BUILDING SITE

1 An 'unused' building plot ready for construction

2 First necessity: water.

3 Water borrowed from a neighbour and brought to the site using plastic hose-pipe.

4 Stock of building materials awaiting use.

5 Stock of sand.

6 Hut to lock up builders tools.

7 Channel type cement blocks.
8 Cement blocks.

9 Terracotta tile units to be inserted between reinforced pre-fabricated concrete beams to build the flat slabs which can be seen in the photos showing the general views of the periphery.

10 Reinforced pre-fabricated beams to support the terracotta tile units.

11 Cesspit.

12-13-14 Overview of building sites in construction.
15–16–17 Wooden structures to ‘standardize’ the length of steel rods and to assemble reinforcing structures to be used in the concrete beams.

18 Piece of wood to ‘standardize’ the bending of reinforcing bars.

19 Reinforcing bars.

20 Builder assembling reinforcing structure.

21 Pre-assembled reinforcing structures ready for use.
22 Pre assembled reinforcing structures in preparation.

23–24–25 Builder and helper mixing concrete. Note the 'can mesurer' and the way water is added to the mixture.

27–28–29 Improvised spirit stove to warm up the lunch which is usually prepared at home by relatives.

30 Filling the cans with concrete to be transported.
31 Side wall ready for the construction of concrete reinforced pillars.

32 Wooden formwork (with the help of the walls) to contain the concrete for the construction of the pillars.

33 Technique to hold the upper part of the formwork tight together.

34 Mason's hammer and chisel at use.

35 Formwork clips.
36–37–38 Scaffolding.

39 Stay posts holding the formwork for a concrete slab.

40 Cement mortar container.

41 Scaffolding for the construction of a side wall.
4 FOUNDATIONS

1 A building site ready for construction.

2–3 Foundations trenches with wooden guide posts.

4–5 Builder setting the first layer of cement blocks. Note the levelling line and the reinforcement bars for the reinforced pillar.

6 The trench cement base awaiting for the first layer of blocks.

7 Same as 3–4, in detail.
Appendix: Photographic record

8 Tie beam at the bottom of the house made with channel blocks and reinforcement bars.

9 Tie beam ready for the first layer of blocks after waterproofing.

10 Note place left for pillars.

11 Note waterproofing at the ground/floor level.

12 Top of the pillar, on the right side the upper binding beam.

13 Builders at work on initial block levels.

14 Wooden formwork, the binding together of two reinforcing bars and the beginning of the concrete casting.

15 The finishing of the concrete beam made with a trowel.
16 Stayposts structured as a cross to form the internal side of the upper tie beam of a room.

17 Junction of the reinforcement bars of a binding beam and pillar.

18–19–20–21–22–23 Different stages of wall construction with space left for the pillars, formwork for the pillars and the normal mode of structuring the formwork.
24-25 Staypost supporting the lintel, the latter being usually made with reinforced concrete and bricks.

26 Builder working on the formwork of an upper tie beam.

27 'Low-tech' mix of different materials used together in construction. Note the arrangements for tightening up the formwork.

28-29 Finishing the pillar. The bricklayers assistant has just passed the concrete filled can to the builder who is throwing it into the formwork.

30 Begining the slab.
5 THE ROOF

1 Prefabricated roof beams waiting to be placed on the upper structural tie beams.

2 Prefabricated roof beams already placed on the upper tie beams.

3–4 Hollow terracotta tiles placed in the prefabricated roof beams.

5–6 Stayposts to support the making of the roof.

7 Internal view of the roof.
8-9 Formwork for the slab sides.

10 Builder working with a trowel to finish the concrete slab.

11 Plastic pipe for the roof slab drainage.

12-13 Preparing the slab to receive the concrete mix.
14 Mixing concrete for the slab.

15-16-17-18-19-20 Transporting the concrete to the slab.
21–22–23 Spreading concrete on the slab.

24–25 Two stages of the construction of the slab.
6 SOME OF THE COMMON PROBLEMS OBSERVED ON THE BUILDING SITE

1-2 Reinforcement bars 'adapted' to a new pillar position.

3-4-5-6 It is common to find this kind of problem in the making of pillars. Uncovered reinforcement bars and all sort of crumbles and holes are a frequent result. The popular name for this is 'wormy' pillars.

7-8-9 Temporary use of a prefabricated beam as a staying post.
10-11-12 Wall out of plumb being 'corrected' with layers of mortar.

13 Internal 'finishing' of a prefabricated slab.

14 Throwing water on the remains of concrete mix stuck on the wheelbarrow during the making of the slab.
7 TECHNICAL DIFFUSION

These photographs compare the basic techniques used by building firms, and small builders at the periphery. The technological gap between them lies in the equipment since work techniques are essentially the same.

1–2 The same techniques are used both for the structure and the walls.

3–5 The same mix of building materials for the same purposes, in this case-lintels.

4–6–7 Extensive use of prefabricated slabs.
8 TOOL HAWKERS

1-2-3-4 Tool hawkers and their ware.
APPENDIX A2

BRAZIL 1986-88:
MONETARY INDICES AND EXCHANGE RATE
## Table A-1

**Brazil, 1986–88**

**MONETARY INDICES AND EXCHANGE RATE**

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### MONETARY INDICES

**Brazil 1986–88: General & retail prices and wage (URP)**

![Graph showing monthly inflation and exchange rates](image)

**Source:** DeBk(1989), Mimeo.