FROM THE SQUATTER SETTLEMENT:
A PROGRAM TO BUILD THE CITY

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From The Squatter Settlement:

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To Evelyne,
Benoit,
Gilles,
Francine
and Hubert.
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From The Squatter Settlement: A Program To Build The City

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ABSTRACT

The making of a place is an important theoretical issue in occidental architecture, especially when it addresses the creation of places meant for communities. Architects working in that field are confronted with a number of issues. They come from the existence of legal and administrative norms, and from the very status of the architect in the western world - from his/her ambiguous position between state, power and society. These issues, explicitly or not, limit the field of his/her practice.

Squatter settlements in the developing world are built in totally different circumstances. Created under illegal conditions, they provide us with an opportunity to observe the creation of new environments located outside of our legal and ideological spheres. Comparing the way they appear with the way places are created in our societies can allow us to locate and to explore the boundaries of our field of action, and to investigate unexpected ways of making new collective places.

This thesis is an exploration of the role that squatter settlements can play in the creation of future urban environments.

The first chapter introduces the reader to the problems inherent in the creation of new places by architects, through works by different authors. The concepts of smooth space and striated space, which are used all along this thesis, are described. The work of the French architect Henri Gaudin is presented. While having theoretically the potential to create urban and collective environments which allow the development of a community life, Gaudin’s work confronts the issues mentioned above when it comes to practice. This chapter ends by stating the interest the study of places which are not submitted to official normative systems holds for architects.

The second chapter presents the concept of squatter settlement, through a critical reading of seven surveys of these environments. These surveys are intended first to provide the reader with the information necessary to the argument of the next chapters, and second to look at the different lenses through which squatter settlements are observed from the occidental world. A constant appears: surveys which are made for exploration purpose do not reduce the environment to a set of parameters, which is the case with surveys aiming directly at a future intervention.
The third chapter is the presentation of a squatter settlement in Bombay which I personally surveyed during a two weeks fieldwork, in May-June 1987. As opposed to the purposive surveys described in chapter II, my approach was an attempt to find in the settlements images and qualities which go beyond its immediate reality, and to get an image of its possible future. The application of this approach to a reality as harsh as a squatter settlement is not easy, but is worthwhile. Unexpected connections are more likely to appear, and the qualities of the environment are easier to find. "Reduction can always occur later through science or critique".

Finding qualities in a squatter settlement leads to an argument in favor of their preservation. By doing so, are we not at the same time validating the processes which led to their creation at the end of the XXe century - that is, an exploitive and disruptive development? The answer is by no way easy, and calls for an exploration of these processes. The fourth chapter deals with this question. While it is true that squatter settlements find their origin in development, the same can be said for the official cities in the developing world. From this, considerations on the concept of structure of space, introduced through Harvey’s and Castells’ works, allow us to describe the squatter settlement as a unique opportunity for official cities to create contextual urban environments, and to counterbalance the importation of market-exchange oriented theories of urbanism.

The fifth chapter is a conclusive one. This exploration of squatter settlements, through their representations, their socio-spatial reality, their local characteristics and a global view of the squatter phenomenon, allows us to redefine our position towards them. How do they answer the issue of creating a place? What do they tell us about the limits of our own practice? How can the qualities found in them be adapted to an official practice of architecture? These conclusions are presented side-by-side in what is called a “conclusive territory”.

Thesis supervisor: Edward Robbins
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I-1: Through many years of flirting with physics and astronomy, I acquired a strong respect for the powers of science and its technological achievements. There is one calculation I remember with particular tenderness: how to damp smoothly a hundred tons of metal falling from a hundred meters with a single spring. Connecting a few lines of equations with such a mass falling from such a height, and realizing that you can actually solve this straightforward problem with a pen and a paper, makes you feel rather powerful - and this is nothing compared to people trying to blast H-bombs, or to understand black holes, quasars and galaxies. But physics is not only power: it is also contemplation - a contemplation of the systems of the world. Sure, our cosmologies are now complex; but striving to understand them is extremely rewarding. Only a scientist can understand the thrill provoked by great unifications - such as Newton's, Maxwell's, Einstein's - and how the moment you understand them for the first time can be such a shock that it forces you to sit on a chair. The beauty of the structures of the physical world is vertiginous.

I-2: The impressive achievements of science, and the prestige it gains through them, have however many side-effects, two of them being particularly serious - and not disconnected from each other: first, the strong interest of political authorities in the power they can gain through it, and the current orientation of scientific research, which is "fed by the warm and fostering hand of the state"; second, the use of methods developed for a certain field in some others where they are totally inappropriate. Science is then used to add credibility to a demonstration, through equations, calculations, computer processing and statistics whose results are exact and precise to a high degree - "Check by yourself". In many cases, the very foundations of the work are unstable: this kind of scientific processing can only be applied to objects which are mathematically processable. The most important point is the following: mathematics works because it is created in order to do so, and the objects it uses are designed specifically to be processed by mathematics. To reach that status, the object of study has to be abstracted first, and reduced to a set of numbers second - the mathematical object is a man-created one.

I-3: Problems arise when dealing with concepts like human settlements, societies, individuals, intelligence: the set of numbers resulting from their reduction has little relation with the concepts themselves. Furthermore, the complexity of these concepts seems to defy any valuable process of reduction. Nonetheless, the application of a hard-scientific method has come to be considered as an achievement in many realms: architecture and urbanism have been experi-
encing these phenomena for years, and are still doing so in many respects: despite of the development of an architectural thinking based on social criticism and recent philosophies, the plethora of design methodologies, the very concept of "design science", the use of predictive theories for the behavior of urban systems, demonstrate that they still have a long way to go to develop their own realm - a realm in which they can evolve without having to find justifications through scientific and technological references. Science as the scalpel of the mind: the dissection of the object of study can require the destruction of all its living substance.

I-4: Another issue is perhaps more pernicious with the inconsiderate use of science: the interest of the state for science and technology leads to the establishment of a system of values where they are considered as references. Thus images and representations of scientific concepts reach the status of symbols. Their use in design becomes a metaphor for the powers of mind, and almost an invocation for them to inhabit the designed object. The clarity of the method has contaminated the complexity of reality. This is not only true for scientific representations, but also for any technological system: an object designed with a scientific methodology will be totally and perfectly understandable through a scientific analysis; and the world thus created becomes controllable and irrefutable.

I-5: The major interest in urban environments is precisely the fact that they are unpredictable. Creating a city with a scientific theory has as an implicit purpose the determination and the control of its evolution. Not that it will really be so: experience shows that the most obvious intentions in architecture and urbanism are more than often contradicted by the events happening in them. It nonetheless introduces what Lévi-Strauss calls "curvatures of the real": the evolution of urban systems is bent, inflected in the direction imposed by the project. As Foucault mentions, the very fact that the intention exists in the minds of a few people is enough to influence the evolution of a world for which it is meant. A technological society directs its cities on the technological path: concepts such as "Information city" are the urban futures at the end of the XXe century - and this future could be bleak if issues of determinism and control are not questioned: a city conceived with high-tech design methods and oriented towards the development of information systems will be totally permeable for the state, and thus totally controllable.

I-6: Where does one start looking for alternative urban futures? The ideology which leads to the conception of the technological city is the same which defines our system of values - and this system of values is sup-

Diagram I-1: Root model of analysis

![Diagram I-1: Root model of analysis](image)

**Diagram I-1: Root model of analysis.** The object analysed is divided into separate threads. The solutions derived from the analysis are defined by the analytic frame. Connections between the threads are established after the separation, and thus have a secondary status in the research. Whatever the circumstances surrounding the object, whatever its nature and its significance, the analysis separates it the same way: it is considered as the mere sum of pre-defined independent categories. A section through these will always give the same representation of the object.
system of values - and this system of values is supposed to make us consider the technological city as the "natural" urban future. It is then very likely that environments considered by the same system as the "worst possible urban places" are the ones which challenge this vision, and which offer opportunities for the evolution of the city to follow different paths. It is in this regard that squatter settlements and slums deserve a lot of attention.

I-7: This thesis is thus an exploration of squatter settlements, in terms of what they represent for the city and for the squatters. For this, I tried to avoid a direct methodology oriented towards a precise aim: as in science, the very use of such a methodology already implies a rather clear idea of what is to be found. Exploring such a concept as squatter settlements cannot be done with the same tools urban planners or economists used to analyze official urban systems.

The power of the reasoning is likely either to blind the researcher, or to erase the concept: the *rectissimae* of reason can act as bulldozers on the field of their research. Not a unique way, but a network of possible paths; not a straight line, but a dead-reckoning navigation; not a violent methodology which forces its object of study into its own set of categories, but multiple ramifications of a thought which is made flexible and adjustable to what it observes, and which classifies it in terms of what it is - instead of in terms of what is to be done with it: a "rhizome" thinking instead of a "root" one (Diagram I-1) - this research is an attempt to unravel the field step by step: each step being defined by selecting the most promising direction among all the possibilities opened by the previous one.

A global structure finally appeared at the end of this work, which would be interesting to the reader who will have the patience to go through it; but it was not pre-established, and emerged as a result of the work.
point of departure.

I-8: What this work owes to thinkers such as Deleuze and Guattari, Foucault, Lévi-Strauss and Bachelard is too important to be fully acknowledged merely by references. The reader who is familiar with the work of Deleuze and Guattari will relate the way of exploring a field described above to a nomadic navigation on a sea whose global maps do not exist, as opposed to a liner whose trajectory is determined and controlled from the beginning to the end by all kinds of electronic and social systems. Foucault’s reconceptualizations and investigations on the issue of control will appear clearly at many points. Levi-Strauss’ cultural relativism, in particular in what concerns the issue of order, underlies the argument developed in chapters four and five. Bachelard’s works on oneiric images demonstrate the importance and the necessity of considering subjective concepts at the same level than what is generally called the “objective reality”, assuming in fact that a clear distinction between the two would be hard to establish. Is the vision of a slum as a future village any less "objective" than the planner’s project to replace it by mass-housing? I would rather argue that the only difference between the two visions lies in the fact that the latter is generated in a mind whose imagination is constrained by a technological ideology. But this takes us too far for the moment. The first step of that exploration is an introduction to the basic problems encountered by architects working in the field of housing; this is the object of the first chapter.
Chapter I

The Problem: The Making Of A Place
1-1: I will begin this work by describing the chronological evolution of a particular situation, which occurred in France between 1950 and 1985. It is not specifically a French one: many different countries have been facing the same issue, which can be defined as “the social housing situation during the late sixties and the early seventies”, and I take the French one only as a particular illustration of a more general problem. The selection of “housing” among all the possible kinds of place is due to the particular position that it occupies between the different levels of power and control, especially when it comes to the question to know who the place is made for.

1-2: Since the beginning of public housing during the last century, the problems inherent to this specific field have kept busy a lot of architects, and constituted a field of study on their own. Multiple illustrations of these arise after the major shift in the realm which occurred at the end of World War II. According to the current urbanization theories at that time, the huge amount of housing required to cover the war damages and the baby-boom, as well as the new social policies (slum eradication in Europe), colonial and immigration policies (influx of colonists returning from newly independent countries; workers immigration) asked for a large-scale use of heavy industrial methods: the major criteria was the maximization of the number of buildings to be built each year. By a series of ad-hoc distortions of the early century urbanization theories, this important modification in the city form flew out of the realm of architecture to become mainly a matter of engineering and construction.

1-3: The housing situation in France during the sixties is a typical case. The four millions apartments erected from 1957 to 1965 in the ZUP’s (Zones to be urbanized in priority)) or in the Villes Nouvelles (New Towns) led to dramatic demonstrations of the fact that housing is not mere construction, and that cities are not simply the juxtaposition of so many dwellings. As soon as the early sixties, considering the evidence provided by social, financial and aesthetical problems generated by the new environments, many architects began to address them directly. One of the reasons of this concern is probably the strong decline in the prestige of the profession in public opinion: people were considering architects as having yield their responsibilities to speculators and politicians (Le Dantec 85, p. 35 - 42); it had nonetheless the merit of convincing the architectural community of the necessity to reconsider the very basis of their theories and practices. A lot of theoretical works begun to cope with the issue of environmental influence over social and individual life, effect of design on social environments, and the impact of these new urban forms on the evolution of the city as a whole. Fields of knowledge previously considered as irrelevant to architecture were proving their theoretical efficiency from the moment connections were established. During the same period, the concepts of user participation and of self-help building appeared as an alternative to the freezing level of environmental and social control allowed and/or implied by mass-housing projects.

1-4: The result of this thinking led to another shift, around May 68 (many architects like to locate it exactly at this time, though it actually begun in 1966), when
students of architecture at the Ecole des Beaux-Arts declared their will to pursue research in social housing, instead of developing speculative projects. They stated the strong political character of governmental involvement in that field, supporting their argument by a whole set of philosophical studies; Glucksmann, Serres, Goldmann, Deleuze, Guattari and also Barthes, Levi-Strauss, Foucault, Lacan and Derrida counted among the main cultural references in which this architectural thinking wishes to be grounded.

1-5: The architects involvement in May 68 was everything but a fashionable event. It resulted in a deep crisis in French architecture. For years on, and despite President Pompidou’s regulations in the early seventies, stating the obligation of hiring an architect for any project bigger than a certain size, the apartment blocks in the Villes Nouvelles stood contemplating each other in the sinister gloom of their aging concrete, sceneries for a dislocated social life, rejected by everyone at the very level of the concept - though no one was able to provide society with a viable alternative. Many experiments were done at this time. Andrault and Parrat’s pyramids at Evry Ville-Nouvelle were trying to invent a new symbolism for a new concept of dwelling. Bofill’s project “Les Espaces d’Abraxas” at Marne-la-Vallée was importing a high-culture semiological repertoire to public housing, trying to provide the inhabitants with a fake cultural plus-value. These projects had at least one merit: they demonstrated the depth of the architectural crisis going on. Using carelessly a purely formal approach, they were unconcerned by any consideration of meaning - with all the misinterpretation risks involved, risks which more than often gave birth to total demotivation of the original intentions; examples are provided by Bofill’s later works (see Pict. 1-1).
Chapter I - The Problem: The Making Of A Place

I-6: The theoretical ground of the new architectural line was, as mentioned above, ground into the works of many different researchers. These authors were philosophers, ethno-anthropologists, sociologists, psychologists, epistemologists, semiologists, historians... but seldom -if ever- architects. The fact that the act and the process of dwelling have repercussions in many different fields of knowledge became an integral component of architectural thought. Four points can be derived from this:

a) - At one point, architectural thinkers were becoming conscious that their eventual production would have to take its theoretical roots and its references in domains located outside of architecture itself. This is nothing new; at many points in history, philosophical thinking has been used by architects to support their own theory: the material equivalent of a pure construction of thought or as the materialization of a cosmology - for instance during the Renaissance. But it represents a “come-back” after the modernist era, whose references were mostly and mainly resting on aesthetics and on artistic considerations.

b) - There exists a theoretical thinking specific to architecture; but it stands on foundations whose consolidation is not the role of architects. Architectural theory is not a self-sufficient body of knowledge, and has to rely on external data which it has neither the means nor the purpose to demonstrate.

c) - Architectural production penetrates specific realms which are not touched by the domains of knowledge constituting its basis. It obeys architectural norms and conventions (explicit or not) whose very existence, as well as aesthetical consequences can be denied, and even contradicted, by its theoretical foundations.

d) - Other contradictions arise from the fact that many of the domains constituting the basis consider society and power from a critical point of view. On the other hand, any process of construction supported by a government is tied to the dominant ideology, to the existing modes of production and -of course- is submitted to political pressures. This will be developed later in this chapter. An architectural production based on critical thinking is balanced between these two tensions, and bears the traces of both; it is the resultant of these two components (Pict. 1-2). This point must not be confused with the incompatibility between an architectural theory based on a doctrinal ideology and the ideology in which the field of practice is inserted.

Picture 1-2: If architectural theory rests on realms which take a critical stance towards society, then the encounter between the production generated by that thinking and the society is very likely to be a clashing one.

*True, the beginning of the modern movement was showing certain sociological concerns; one example is given by the social justifications of Soviet architecture, another by the socio-economic considerations of Peter Behrens’ projects. However, these were hardly more than connections. They were not used as part of the foundations of an architectural thinking. Sciences like anthropology and ethnology were actually in their first decades of existence. Today, they provide us with methods to look at our society from an external point of view; this important fact was not then acknowledged as it is today.
Examples of these contradictions can be found in the works of many architects of the “new-wave”. Current aesthetic norms in architecture are very specific on many points; and the appreciation the architect is looking for in his/her work has to come partly -mainly in a few cases- from his peers. For instance, even if the main streams of thought do not necessarily coincide in the French contemporary practice, they all agree on the condemnation of a purely formal practice. The fear to be considered as formalist often leads to last-minute arbitrary shifts at the end of rigorous reasonings. A single example: one constant in the works of many architects is the reference to the city as a place to live together and to interact socially. Acting as a catalyst for the development of a convivial community life, the street is considered as a fundamental element. Nonetheless, when it comes to design, the logic of the argument flaws, and introduces a bias whose unique motivations seems to be linked to the anti-formalist current convention. The formalization of the theory tries by all means to avoid the design of a conventional street: “The possibility of reconstituting a street is not even to be considered”.

The writings of the French architect Henri Gaudin will be taken as an example of such a thinking. Gaudin, whose work will be discussed in detail in the next paragraphs, takes the whole medieval city - and not only the street - as a referential model. Complexity, issues of scale, labyrinthial patterns are opposed to the major orders which, from Haussmann’s great projects, led to the realization of the grands ensembles. The notions of space and of urban space are major concerns: the space between the buildings is now considered as constructed by the buildings themselves. The problems encountered by the French architects during the early sixties are symptomatic of the importance of this issue. Still highly controversial, it is considered by most architects of the new generation as causally related to the concept of urbanity. This concern represents probably the most important difference between “before” and “after”. The city is now considered as “a society of spaces and objects”: objects experience relations between themselves and with the open spaces, which are implicitly attributed to the different subgroups of the city’s inhabitants. Porosity, hospitable pockets, permeable limits, are the characteristics of an environment which, “if a model could be given of it, would look like a curled cabbage, or like a sponge”.

Henri Gaudin: The city as a curled cabbage

Henri Gaudin is one of the main figures of the new generation of French architects. Teaching in Paris, he has been developing his thinking for many years, and began to build quite late in his career. His projects are widely displayed in French architectural magazines, both because Gaudin’s writings is now a part of French architectural culture, and because of the fact that the images he creates are uncommon in public housing. Unlike most of his colleagues, he cannot be located between modernists and post-modernists. He actually considers post-modern architecture as the end of the modernist sunset, and puts in the same bag “the small crepuscular masters (the post-modernists) and the modernist dinosaurs”, who play “the very same game”.

The status of Gaudin’s thinking is not easy to locate. The refusal of administrative and controlling power is more the result of poetics than the conclusion of a methodological questioning. This does not prevent from being extremely rigorous; actually, the very use of a single theoretical line, oriented towards the emergence of a solution, pertains for him to the same way of thinking that led to the fading of urbanity in modern cities: if something like a reasoning space could be defined, Gaudin’s would be a smooth one in terms of
Deleuze and Guattari's categories (see paragraphs 1-24 to 1-27 below). Science-oriented attempts, statistical data, administrative normalization are considered irrelevant as long as they are used as methodological tools for design and composition. The same is said about all attempt at determining in advance any kind of social or individual behavior through design. The beauty of high-level reasoning, the interest of skilled sign-games, of great trajectories - directissima - and vertiginous breakthroughs in the labyrinths of human thought is not denied. But these simplifications are seen as inappropriate for human matters; and the world where they take place has a dense record in using them for purposes of control. Considering the city as the manifestation of a will to live together leads to the rejection of any administrative or legal regulations whose direct or side effect is to limit communication between people:

"Florence, Rome, Venice, Saulieu, Paris, none of the places you like would be acceptable in regard of today's administrations". (Gaudin IFA 1984, p.55) "Just try to plant a tree close to a house, you will quickly see what impossible difficulties await anyone whose vision is inhabited by the beautiful images of the alliance of walls and leaves: the contractor's reluctance, the leaves falling in the gutter, humidity, roots disturbing the masonry, insurances, rights of property, moss, passageway for fire trucks, shadows, the mask imposed by one leaf to the window, as many juridical, functional and economical arguments which are only symptoms of an ideology of the vacuum, a moral of loneliness, an ethic of distance..." (Gaudin 1984, p.177).

1-11: The convivial and complex form of the city sought by Gaudin is emerging from a particular kind of life and allowed by a particular way of thinking, which it supports and indicates, but of which it is not considered as a cause. The existence of the shifts, glidings, vis-à-vis mentioned in the quotation above is not considered as specific to the medieval period. The crucial point is their acceptance at this time, the fact that they were not considered as pathological or as a deviance which should be avoided when circumstances permit. They were not seen as material contingencies blurring the beauty of an ideal and global order, but accepted as a normal part of the materiality of the built world - as the order of things.

1-12: Design processes taking into account the buildings and the spaces they define, as well as the existing urban settings, and their relations and influences over the people, involve a much larger set of parameters than the design of building considered as an isolated object. Also, the lack of methodical studies in that specific realm (not really compensated by the plethora of empirical works like Krier's, Sitte's) leaves a lot of obscured zones, that we might not yet be capable of deciphering. Building in already urbanized areas, in order to get local referential images, can be helpful in overcoming this limitation in order to achieve an urban environment; but the generation of urbanity from a tabula rasa, like in the indifferent space of the Villes Nouvelles, is nothing less than the creation of entirely new places - places where thousands of people are going to live. The search for and the importation of external referential models appears then as a logical strategy, especially for those models whose level of urbanity is high. This is one of the reasons for the renewed interest of for medieval and traditional cities, interest which should not be confused with a purely formal historicism or with mere post-modernism; such confusion would anyway be infirmed by the visible results of the thinking - the buildings themselves. The relation between the new environments and the referential models is more than just a visual one. The concepts
of complexity and conviviality are recurrent in the writings of many of the architects of the new French generation. Urban spaces for instance, so important and so ramified in traditional environments, are considered as major components in the achievement of a community life similar in these new places to the one existing in them.

1-13: In the same way, Gaudin’s interest in medieval and traditional environments is much more than a purely architectural one: between those urban settings and ours, the difference is much more than just a few centuries. It indicates a different moral, an ethical difference in the attitude towards human relationships, which can be partly described in a caption: a world where control and efficiency were not planning strategies. The following reflexion underpin his whole thinking:

“Old cities provide us with treasures of space, odd arrangements, artful topologies which constitute this labyrinth where architectural thinking should enliven itself. Architectural thought today is being exhausted in a compositional system, inherited from the “classicist” period, which is nothing but a particular case among all the possible types of assemblage. If architecture is really the science of agglomerations, these assemblages are what we must try to discover during our promenades. We must analyze breaks, shifts, glidings, vis-à-vis, point out what the city owes to its division into parcels, to the smallest intentions, to the minor mode, discover to what extent, though great projects and long-range thought sometimes engraved it with their seal of Beauty, the neoclassic myth of extension was the cause of its loss, and transformed new cities into cemeteries. Why this moral of distance, of separation, this world of exclusions, when the city was telling an universe of infinite proximities, of relations, of exchanges?”

“The city was telling”: the moment when it stopped to do so is not easy to pinpoint. In European contexts, it can be traced back to Renaissance, when the space of the city was for the first time being considered as an unitarian whole, defined by a global geometrical struc-
ture. This overwhelming order, indifferent to the existing structures, was for Gaudin the beginning of a long process of disruption of the urban fabric. Its first major strokes occurred at the baroque period:

"Before the great baroque lightnings which concentrate and precipitate its elements, the city is a profusion of events, constituted piece after piece, an enumerative operation."

From there on, this disruption is seen as a continuous phenomenon accomplished through a series of ordering processes, the motivations of which vary with the period. Always presented under a practical cover (sanitation, circulation, safety, efficiency). Whatever the historical and social circumstances surrounding them, they all resulted in the establishment of global and unifying orders over the local multiplicities of the city; and their side-effect was an increasing disparition of local urban spaces, these spaces manifesting the desire of urban population to live together as a community and providing the loci for this collective life.

1-14 The global gestures which tend to consider the city as a whole unitarian concept (as opposed to an organised society of multiplicities) are chronologically parallel, and directly connected, to the development of reason, and on the growing importance and prestige of the rational method, following Descartes and the rationalists:

"Quite often, there is not as much perfection in the works made from many parts than in the ones to which a single master has been working. Thus we see that buildings undertaken by a single architect are usually more beautiful and ordered than the one which has been patchworked by many of them, using old walls built for other purposes. (...) Thus these ancient cities which, having been in the beginning nothing more than old villages, and which became big cities through the succession of ages, are usually so badly planned, that (...) even if their building, considered separately, are as skilled or more than any other, when we consider to which extent they present curved and unequal streets, one would say that they have been arranged by chance rather than the will of a few men using the powers of reason." (Descartes 1966, p. 41-42).

And later:

"One has to admit that it is uneasy, by working on other people's buildings, to make really achieved works."

(Ibid.)

The globalizing project implied by Descartes' thinking is so important that it can rest on individual practices and laws that he himself acknowledges as immoral. Talking about the city of Spartis, he says:

"To talk about human affairs, I believe that if Spartis has been such a blossoming city in ancient times, it was not because of the correctness of any of its laws in particular, many of them having been quite strange, and even opposite to good uses and habits, that because they were all oriented towards an unique aim." (Ibid.)

Descartes does not deny the convenience of the old cities, whose use has made much more convenient than their eventual transformation would be:

"...in the same way as these roads, which wander between mountains, become slowly smooth and so convenient because so many people have been using them; it is much better to walk along them than to straighten them, climbing over the mountains and getting down to the bottom of gorges and valleys." (Ibid.)
But there is a world of difference between accepting, somewhat regretfully, departures from an ideal situation that should have been planned from the beginning, and the acceptance of the result as the proper response to a specific problem.

1-15: The introduction of reason and of a methodical searching in scientific realms led to an amazing series of achievements, which tends to obviate their origins and the way they do process, abstracting objects of the real world in order to be able to mentally process them. This abstraction is a process of reduction: that is, the selection, among all the properties present in or attributed to an object of a certain set of information meant for a particular use. It can thus be made in many different ways. Scientific reduction as a *species* has very defined characteristics: its results must be usable by scientific methods and tools. The apparent triviality of this statement is deceiving: among all the possible reductions, the one selected by science is pre-determined by the results expected from the research program for which they are meant. The *kind of solution* expected is included in the *kind of analysis* performed; and the prestige given to science by its successes, enhanced and supported by its political role, does not give its objects any more substance than what they were left with by the initial reduction. A current misinterpretation consists in confusing analytic models with an underlying reality - a reality which they actually describe, but with which they are not identifiable.

1-16: The clarity and the transparency of scientific results is thus only a characteristic of the models, and is not necessarily transferable to reality. The reasoning which consists in applying a scientific methodology to objects which are not reducible to the set of appropriate data is highly questionable. To Descartes' linear meth-
odology and search for a logical truth ("Do not consider as true anything that you did not demonstrate yourself as such") Gaudin opposes Montaigne:

“It is also true that, for the needs of life and for the practice of public affairs, there can be an excess of purity and perspicacity in our minds; this penetrating clarity is too subtle and too curious. We must weight our minds and unsharpen them in order to enable them to obey to example and practice, and to make them thicker and darker to adapt them to this sombre and terrestrial life.” (Montaigne 1962, p. 1040).

Do we really have to forsake the power of reason for the analysis of the terrestrial worlds, of the inhabited realms? If “reason” is defined in Cartesian terms, then the answer could well be positive. The very fact that Cartesianism postulates the existence of a truth discoverable by the powers of mind, as well as its assumption of this truth’s absoluteness, makes it inadequate for worlds where the quality of a concept as well as any judgement of value must be relativized according to specific situations, where the concepts of truth and beauty become devoid of any sense because they are so intimately connected to the observer’s referential frame, where everything is to be considered in terms of stratified and juxtaposed relations instead of separate objects:

“The building only exists by the multiple facets through which it actualizes itself, to become “this” cathedral, “this” designated house, affected by the land where they incrust themselves, qualified by a local story and by processes, a collectivity of workers, of techniques, of recipes.”

1-17: The uniqueness and the specificity of each building are incompatible with the concept of a city as an unitarian whole. The only reality of such a concept is created by the great gestures which, conceptualizing it as a simple object, intervened on it as if it was a simple object. They thus imported into material reality a highly abstract and reductionistic view of it, selecting its relevant elements in terms of circulation, efficiency, control, sanitation and speculation, and processing them with tools and methods which have today achieved a high level of sophistication. Not that these elements are not integral components of the city life; the critical point is their separation from the other components, and their separate application to the city irrespective of local orders and Microsystems.

Defensible space and cybernetics

1-18: Confusion can easily arise between the rigor of a method and the rigor of the basic assumptions on which it rests: the more perfectly rigorous methodology has little value if its basis are undemonstrated or inadequate to its purpose. Examples of this kind of inadequation are provided by Alexander’s mathematical model for the quantification of social relationships (see paragraph 1-20 and frame 1; Alexander 1975), Coleman’s proposals for modification of vandalized areas or for design new housing settlements (see paragraph 1-19 and frame 2; ref. Coleman 1985) or, in a non-architectural field, irrelevant quantification of concepts which are themselves ill-defined (whole fields of science have developed on such basis: phrenology, sociobiology, racial studies. Multiple examples are given in Gould 1987 about the notion of I.Q.). The basic selection and the clear definition of concepts and categories to be used for the analysis has then to be considered with the same importance as the analysis itself. The absoluteness of any concept, species, series or categorie remains to be proved and is even considered as undemonstrable by many authors. None of these can then be intrinsically
privileged; their relevance is only definable in terms of
the use for which they are meant. The concepts and cate-
gories provided by a reductive process are not to be
considered as its point of departure, but as an already
advanced step, introducing an unavoidable bias and
limiting the range of the end-products to the categorial
framework defined by the reduction.

1-20: A first example of problems related to reductive
processes appears in Alice Coleman’s book “Utopia on
Trial”. Addressing the well-acknowledged problem of
vandalism and criminality in mass-housing projects,
the author tries to establish guidelines both for improv-
ing the situation in existing neighborhoods, and as
design specifications for future projects. The work is
done both by referring to existing studies (Jacobs,
Newman, Jephcott) and through a field research in
London suburbs. The methodology is explicitly sci-
entific, and relies on “observed facts”. The study effec-
tively results in a set of design modification proposals,
and in a list of evaluation criteria for existing environ-
ment. The study is however biased in its very basis by
conceptual problems, putting in question not only the
study in itself, but also the appropriateness of the whole
method for the field of housing. Frame 1 elaborate on
these points in more detail:

a) - There is continuous confusion between “scientific”,
“numerical precision”, “quantitative” and “rigor”.

b) - The reduction to workable elements is inappropri-
ate to the study.

c) - The is no care about the possible use of such results

Frame 1 - Alice Coleman: putting Utopia in Jail.

a) - There is continuous confusion between “scientific”, “numerical precision”, “quantitative” and
“validity”.

“Newman’s study was also quantitative, which gave added value to its evidence”. Quantitative value can be
totally irrelevant to the “evidence”. Many concepts are not quantifiable; quantifying them is thus a methodo-
logical mistake. A study can be scientific without being quantitative nor precise. “To achieve precision he used
the statistical method of correlation”. The statistical method of correlation does not have the potential to prove
anything by itself, whatever the degree of precision it can achieve. There is a 100% statistical correlation
between the increase in Coleman’s age and the general increase in the price of gasoline. By no mean does that
signify that they are causally related; this is a separate demonstration. Scientists would hardly undertake it
under a 90% level of correlation. Considering its seldom appearance in hard-science realms, it is very unlikely
that Newman could have even come close to it. “This breadth of scope (106,520 dwellings have been surveyed
for Coleman’s study) is intended as an antidote to the claims of people who feel justified in a single block of
flats as sufficient “proof” of their own opinion”. The huge number of dwellings actually surveyed is not a
quality criteria. The statistical “weak law of large numbers” does not require such large numbers. A well-done
statistical study on a thousand dwellings would have been more efficient and as precise.” The research mind
must be open to factual evidence and not closed by some predetermined ideology”. The fact to recognize the
possibility to be blinded by some ideology does not prevent searchers to be so – see part d) below.

b) - The reduction to workable elements is inappropriate to the study.
Coleman’s work is based on and takes the same methods as Oscar Newman’s work on defensible space. This
study defined goodness or badness of blocks by using levels of crime and vandalism as indexes. The social
environment has been reduced to 1) material design features; 2) criminality and vandalism acts. If nothing else
is considered at the same level, any correlation between both will appear naturally as a causal link. “Not
content with demonstrating a strong association between design and crime, Newman went on to establish
whether the link was causal. If one or more of the implicated features were improved, would the crime rate fall? This was tried, with positive results. Newman’s work had opened up design modifications as an important new weapon in the fight against crime” (p.16). The isolation of these two concepts from the rest of the world prevents the look for any other social cause, and allows to attribute the whole responsibility to a single factor: Social environments are made of an infinitely larger number of interacting factors. The “positive results” of the verification is discussed just below.

c) - There is no care about the possible use of such results as a social control tool.
Whatever are the motivations of the study, its results are controlling tools for a whole population. Criminality and vandalism will be encouraged by certain kinds of designs. Their causes will not disappear. The decrease which can follow the implementation of design features will only be due to the fact that they will be controlled: their external causes are not even addressed, because they are excluded from the relevant criteria by the reductive process. Designing a jail for everyone will obviously decrease criminality; but every vandalism or criminality occasion will be grasped by the prisoners, which the designer will explain by talking about the “natural criminal instincts” of mankind. Coleman’s proposals will lead to a society of discipline, were everyone’s bad instincts are prevented by constant social control; the success of such proposals is explainable by the interest of any kind of power for the installation of a panopticon society (Foucault1975, p. 197-230).

d) - The foundation of the thought consists in a notion of human evolution which is displaced in the context, invalidated by many not-so-recent studies, and used as a political tool to legitimize class distinctions among a population.
The two elements which are relevant to the study are unable to describe the causes of criminality. Instead of profiting from this shortcoming to widen her categorial frame, Coleman assumes that the causes are not to be sought since they are engraved in the human brain. Then a different reference appears: The Dragons of Eden, by the astrophysicist Carl Sagan. Following a Neo-Darwinian evolutionnnist line of thought, Sagan assumes that archaic evolutive processes are still active in our brain, and that we are controlling them up to a degree: the reptilian and pre-reptilian layers of the brain can lead us to act irrespectively of any moral or social convention. These archaic instincts would be at the origin of man’s criminality; thus social control is a way to protect man from its own criminal instincts. This issue is highly controversial in ethnological studies. But the worst part of the argument comes with the following quotation:

“Designs that incorporated defensible territory and scope for the occupants to make their mark proved popular and were repeated, while those that denied these needs proved hard to sell and were discontinued. Natural selection was still in command”.

Natural selection seen as favorizing housing typologies; criminality as a part of man’s archaic animality: Coleman’s ideology is extremely dubious, and follows a sociobiological line. Sociobiology as a science has been invalidated both by biologists, sociologists and anthropologists (Gould 1986, Jacquard 1985). It has been acknowledge to be ideologically dangerous since, by trying to demonstrate that man’s behaviour was genetically determined, capitalism was a natural evolution of social behaviour, thus explaining criminality and poverty by natural genetic deficiencies, and justifying the power of the wealthier by natural selection. In the general realm of science, it appears as a monstrous aberration, as impossible to prove as astrology or telekinetics. It is worth to mention that the people at the origins of sociobiology are, like Coleman, relying on the “observed facts”.

Coleman’s research is very rigorous. The results naturally follow the demonstration. But starting from an ideologically biased selection, she naturally achieves results which are biased exactly the same way: the answer to the problem was already included in its statement. Scientificity does not necessarily comes with rigor. The fact that Coleman does not consider the eventual use of her work for social control comes from her fundamental and unquestioned conviction that such a control is necessary. The scenario is actually extremely logical: after having put Utopia on trial and having found it guilty, Coleman naturally comes to the conclusion that it should go to jail.
The foundation of the thought consists in a notion of human evolution which is displaced in the context, invalidated by many not-so-recent studies, and used as a political tool to legitimize class distinctions among a population.

If Coleman's attempt is legitimated through the concept of scientificity, Alexander's tries to support his experiments by the very use of science. The study of an Indian village (Alexander 1966, Appendix) is typical of the methodology. The scientist method leads to the following points (see frame 2 for elaboration on them):

1-20: If Coleman's attempt is legitimated through the concept of scientificity, Alexander's tries to support his experiments by the very use of science. The study of an Indian village (Alexander 1966, Appendix) is typical of the methodology. The scientist method leads to the following points (see frame 2 for elaboration on them):

**Frame 2 - Alexander: Towards a cybernetic environment.**

Alexander's methodology of design is typical of the "Scientism" current. Coming from the fields of mathematics, he directly applies methods extracted from this field to the study of the creation of human environments considered as too complex for one individual capacities.

- Apart from the functionalist concern, and the importance of the form as the final objective of any process design, the very use of mathematical methods for the study of human relations is based on another example of inappropriate reduction process, leading to categories irrelevant to the study concerned.

- Analogies drawn from the field of physics show the belief in a totally deterministic process leading to the appearance of the form: a magnet acting on iron particles which indicate lines of force is considered as similar to a "field of forces" uniquely defining the aspect of architectural forms.

- The example provided at the end of the book is an analysis of patterns of relations in a six hundred people Indian village. All the variables considered as "pertinent to the organization of the village" are separated from each other, following cartesian methods (separate any big problems in smaller and smaller problems, up to the point when you can deal with each of them separately). They are then numbered, and their eventual interactions are listed (61 interacts with 1, 6, 8, 15, 22, 32, ...; 92 interacts with 25, 26, 28, 29, 34,...). All these variables are then grouped in subsystems, which themselves are grouped into systems, and so on. The study of relations inside the village is thus reduced to a "specific, purely mathematical problem. Given a system of binary stochastic variables, some of them pairwise dependent, which satisfy certain conditions, how should this system be decomposed into a set of subsystems, so that the information transfer between the subsystems is a minimum?" At the basic level of such a methodology rest a few unsubstantiable assumptions:

**a) - The village is considered as an optimizable system.** Minimize the information transfer is an optimizing process, whose utility is to achieve efficiency and rapidity in the system studied. It is a necessary criteria for systems such as computers, telephones, satellites; it is required for production systems like factories and fabrics. Its application to social systems can be justified only if the results expected from the two kinds of systems are similar. The will to "optimize a social structure" is an indicator of the category in which Alexander locates the concept of "Village".
b) - There is no hierarchy between the different interactions. "For the sake of simplicity", the links between the 141 variables are considered as being of equal strength. More than two thousands links are thus on a very same level: traffic, sacred animals, latrines, cattle, food habits, access to water, are all considered as having exactly the same importance.

c) - The network of relationships is seen as the mere sum of simple links.
If there is obviously a good point in talking about relation between variables instead of variables themselves, the author treats the network of human relationships as the mere sum of its components. Interactions between the relations themselves, as well as influence between these interactions, are not mentioned.

d) - Alexander’s mathematical rigor does not obliterate his conceptual mistakes.
This specific reduction of the environment is necessary for Alexander in order to be able to use his mathematical tools. When the reduction is done, they are used skilfully: once more, the rigor of the process rests on unsupported basis. The result is as expected: a cybernetic model of relations for an environment reduced to a bare structure. Defining his categories by selecting data from the complexity of an existing environment leads Alexander to create worlds where they will be perfectly appropriate. Goodman argue that we create worlds from our words; Alexander is creating computer-processable worlds from his mathematical figures.

e) - The mathematical reasoning is not viable from a mathematical point of view. Even inside a pure mathematical framework, Alexander’s research is not viable: a curious mathematical phenomenon, "the butterfly effect", flaws it from the very beginning by preventing any long-term prediction on the evolution of the settlement (see footnote, par. 4-56).

Mathematic is a powerful tool, and leads to impressive results as long as it applies to mathematical objects. This is no surprise: the tools and the objects have been created to obey a certain kind of logical laws - even if many important logical paradoxes are still not resolve. The gentle obedience of figures to mathematical laws comes from the fact that they have been created in order to do so. Mathematical entities are not considered as existing out of their abstract level. The belief that these tools can be directly applied to human affairs is the result of a fundamental misconception; the assumption that the successes of science in its own realm can allow it to govern fields out of its reach -that is, the belief in a science independent of its own basis-has been a common myth during all the century. Alexander and Coleman are not the only one to indulge themselves in such pathes; but this cannot by anyway justify the enormity and the absurdity of this conclusive remark: "The shapes of mathematics are abstract, of course, and the shapes of architecture concrete and human. But that difference is inessential".

intervention methodologies in urban areas. The underlying comparison with Foucault’s *unités du discours* in history (elements of the speech ; Foucault 1972), present all through Gaudin’s work, is worth describing. Considering one particular text, Foucault’s analysis rejects its separation in accepted conceptual entities, whose very nature and motivations are put into question (like the concepts of *book* and *work*). The redefinition of a whole new categorial set, different in nature and adapted to the kind of research he is undertaking, allows him to establish similarities between different textual works coming from the same period, but located in fields apparently unrelated; and from these similarities, to define a general set of constants, pertaining both to historical and philosophical fields, meant to be the time-specific elements of speech: the structure of knowledge at a particular time. If Foucault was criticized for trying to establish absolute concepts in his realm (in particular by Lévi-Strauss), his work has the merit to demonstrate the importance and the relevance of reconsider-
ing the categories and concepts of any methodological approach, and to show their importance in terms of the result.

**Smooth space and striated space**

1-22: The model of the city offered by Henri Gaudin is based on an approach which does not make use the dichotomy between a global whole and individual objects. Its elements are not anymore distinct spatial or geographical entities (street, house, building, neighbourhood, blocks...), but multiplicities, arrangements, strata juxtapositions. No urban object can exist by itself. An actual urban space is incremental. The additions are both chronological and spatial; each of them incrusts itself inside a “there is”, which provokes and multiplies the space tricks and the rused topologies which are at the origin of the quality of urbanity. The contingencies and the existing elements of the land are not obstacles for the architect who wishes to intervene: they fecundate his thought by a starting proposition, the grasping of which requires the elaboration of what is called a conjectural knowledge; and thanks to which the presence of former elements.

1-23: These remaining elements, these traces of the past, are small and even infinitesimal - in size - at the level of city planning. The level of resolution of current urban-scaled projects is by far too low to reach them. Would it be improved, their number and their variety - both in form and in meaning - would make unrealistic any attempt to incorporate them in a global design. This illustrates two points:

a) - The very fact that the task appears unrealistic comes from the pre-selection of urban planning as an operative methodology. Urban planning as we know it now is grounded on rationalist thinking and scientific reductionism. Finely textured environments are located out of the field of its application.

b) - Urban planning is not the proper tool for dealing with such finely textured a realm as housing areas, the study of which requires different tools based not only on different conceptual bases, but also on a different system of thought.

1-24: An alternative system is proposed in Deleuze and Guattari’s *Mille Plateaux* (Deleuze and Guattari 1980), which can be first illustrated by showing how it can put into question accepted dichotomies such as rural/urban or nomadic/sedentary. As mentioned by Burgess (Ref.), these dualist separations are helpful in the sense that they provide a fixed base for further thinking; but this thinking should not prevent us to reconsider them during the study, and the autonomy that it gives us does not signify that the fixity of the base can be equalled to its soundness or stability. Example of the deceiving or incomplete aspect of long-used concepts is given by Peattie (Peattie 1980) and Sanyal (Sanyal 1988) in their critique about the concept of “informal sector”, or again by Foucault (Foucault 1972 - Introduction) in the field of history. Deleuze and Guattari replace these dichotomies by a third one, distinguishing between smooth space and striated space. This allows similarities to appear in categories apparently opposed.

1-25 The precise definition of these two abstract concepts is not obvious. They can be applied to many different realms. Since they will be used later in this work, I will elaborate a little bit on them, using some examples provided by the authors and going from the more abstract to concrete illustrations.

"In the smooth space, the line is (…) a vector, a direction, and not a dimension or a metric determination. The space is built by local operations with changes in
direction. These changes can be caused by the very nature of the trajectory, e.g. for the nomadic people living on archipelagos; but above all, they can be caused by the variability of the aim or of the point to be reached, like for nomads in the desert heading towards patches of local and temporary vegetation" (my italics); (Deleuze and Guattari 1980, p. 598).

Using a geometrical image, the striated space is similar to an Euclidian metric space. The knowledge of the local structure gives the knowledge of the global one. Distances are all determined—that is, measurable. Striae correspond to any geometrically defined object in this space. The smooth space is similar to a Riemannian non-metric space. Riemannian spaces are curved. They can be locally assimilated to flat ones. It is mathematically impossible to define any object of whose all characteristics will remain coherent throughout the space: every study must limit itself to local systems. The space can be described as an assemblage of infinitesimal flat spaces, connected but not necessarily related to each other. A good illustration of this is the curvature of the earth, which we can consider as locally negligible, but above a certain scale it has to be taken in account.

A technological representation of a smooth space is given by a patchwork, or by a felt; smooth does not correspond to homogeneous:

"The smooth space of the patchwork shows that "smooth" does not mean "homogeneous". Quite the contrary: it is an amorphous and informal space." (ibid., p. 595).

The striated space is illustrated in this model by a fabric, where elements are differentiated and perform different functions: fixed and movable threads, corresponding to weft and weave. The fabric is described as a "soft solid".

The authors also provide us with a maritime model:

"Sea is the smooth space par excellence, but was nonetheless the first to be faced with the exigencies of a continuously stricter striation. The maritime space has been striated through two developments, astronomical and geographical: the position point, obtained by a set of calculations from exact observations of celestial bodies; the map, with its crossing of meridians and parallels, covering known as well as unknown areas. (...) The first smooth space to be tamed was the space of the sea, and the model which was developed there will be used elsewhere" (ibid., p.598).

1-26: The smooth space is populated by events, rather than by perceived or formed things. In the striated
space, forms organize matter; in the smooth, materials indicate forces, and are symptoms of them. It is a space of intensities, a space of distances rather than of measurements. The space of the nomad is smooth, the urban space is striated. When the nomad settles down and becomes sedentary, his space retains some of the characteristics of the nomadic space:

"The peasant still fully participates from the space of the winds, of sound and color qualities." (ibid., p. 600).

The countryside is nonetheless progressively striated; but this modification is caused by the action of the city. Through it, the cultivator and his smooth space are overwhelmed by the farmer and its striated space. Thus the opposition between farmers and nomads coincide with the separation smooth/striated, though the opposition between cultivators and nomads does not. The maritime and the agricultural examples shown above demonstrate that a space can go from a smooth state to a striated one, through various processes. The space of the city is an archetype of a striated space; it is itself inserted inside a global striated space. An important point here, to which we shall come back later, is Deleuze-Guattari's argument that between the striae of the city space, huge patches of smooth spaces are generated: the new and moving space of squatter settlements.

1-27: The dichotomy smooth/striated is thus operating at a basic level, which allows us to put into question some of the categories we are used to. Assimilating the space of an urban squatter settlement and the nomadic space, as well as differentiating between cultivated and agricultural land, are examples of categorizations which cannot arise from the usual dichotomies urban/rural and formal/informal. Elaboration on issues related to this dichotomy will be presented in Chapter IV and V, as well as its possible application for the field of housing.

The daily and the sublime

1-28: I will now elaborate on the two basic paradoxes in the issue addressed by architects working along the theoretical lines defined in parts 1-4 to 1-13. These paradoxes lead to difficulties or contradictions when confronted with practice. They arise from the following considerations:

A) - The theoretical foundations of the architect's thinking are based on fields which are critical towards the society where the architect is practising.

B) - The status of the architect and his/her social position does not allow him/her all the freedom of action that s/he needs to achieve a project which is totally in agreement with his/her thinking.

1-29: The first consideration is also connected to the general field of relations between architecture and power. The French context in particular has a long history of architecture used as a way to stabilize and manifest the power of the state - monarchist as well as socialist; Versailles as well as the most recent grand projects in Paris. Historians, sociologists, epistemologists, philosophers are not the last to put into question the existing social institutions. Among many, Baudrillard for instance states that capitalism is fundamentally immoral; it then has to hide itself under a moral blanket, which explains the success of moralizing speeches in countries like United States; and any economical description of the society based on a Marxian model is considered as subversive by a right-wing government. One of the main field of practice for architects concern
social housing - that is, built with government funding: architects then have to define a way of acting whose products will be allowed existence in their context. They experience the limits of authorized subversion under a particular regime.

1-30: The second paradox is more directly connected with architecture. It comes from the following points:

a) - The explicit desire of these architects is to create an environment which experiences with people ("the users") the same kind of relationship as a medieval/traditional city does with its inhabitants;

b) - Those cities were built by a variety of people over the course of several centuries, in a very flexible and adaptable environment. It is legitimate to speak of a feedback relationship between people and dwellings;

c) - This evolutive process can be characterized by the following criteria:
   - Non-centralization of the design process;
   - Non-obedience to a global unifying order;
   - Non-reference to extrinsic norms and conventions.

d) - The resulting environment is finely textured. To use a photographic metaphor, its fineness of grain, or resolution, is much more subtle than anything planners and architects can pretend to achieve;

e) - Henri Ciriani (Le Dantec 1984, p. 122) classifies the criteria that an architectural product must satisfy into three categories: pertinence, presence, permanence. Permanence is precisely one of the criteria distinguishing housing from monumental or institutional. It is opposed to the flexibility required by a housing environment.

f) - The use of architectural composition for housing then results in a basic paradox which is stated by critics as the contradiction between the daily and the sublime (Devillers 1986, p. 102);

1-31: The attempts to solve this paradox develop along two lines:

1) - The belief that, by an appropriate modification of the design method, it is possible to achieve an environment which is able to maintain in its meshes the flow of a community life. This approach still relies on architects;

2) - The assumption that, by making people responsible for their environment from the beginning, and by allowing them to influence it (either by user participation or by various levels of supports), a finely textured place will develop, in which community life will naturally be maintained.

The difference between these two approaches has indeed a strong influence on the kind of place which will result. They are based on a) - different ideologies, b) - on different attitudes towards human beings and c) - different concerns about the issue of control. Control is actually a two-fold issue: control over environment vs control over people. Manifestations of these three points will influence the entire design process, and will then be readable in the final product.

1-32: According to these considerations, what is the influence of the presence of an architect on the correspondence between the final results and the intentions? Let us now consider any architect, without limiting the argument to the French new generation. Whatever are his/her theoretical bases - meaning, even if they are in agreement with the powers in place -, s/he is, in western societies, an official delegate to the conception of the built environment. The freedom s/he has for designing is constrained by a set of normative systems: aesthetic and artistic norms, conventions, codes, legal and safety
constraints, and so on, whose study is a field in its own right. S/he makes use of legitimation processes which are specific to his/her realm (like historical precedence), and are often located in high-cultural spheres. Inserted and shaped by the dominant ideology (Althusser: the university as an ideological state apparatus, where the word “ideology” is used in the Marxian sense; Althusser 1971), even if s/he does not accept it, s/he works within the means and the limits imposed by it. And last but not least, the architect is an order maker: the process of design is an ordering and compositional system; from the moment s/he defines it, s/he compels him or herself to stick to it.

1-33: Different sets of constraints apply on architectural projects designed with users participation. The presence of the architect is still required; but depending on the levels on which s/he does intervene, norms and conventions can show any balance between “popular taste” and “high culture”. Codes still hold: the buildings have to be official and legal. The need for legitimization is not necessarily explicit. Problems of style are more likely to disappear in favour of personal preferences. But it is not always the case. Tzonis and Lefaivre list many different reasons for architects to be involved in community architecture (Tzonis and Lefaivre, 1983). Most of these are somewhat useless and even despising towards architects; and their formulation is rather naïve, since it generalizes to all community architects the wanderings of a few. True, projects like Giancarlo De Carlo’s Villagio Matteoti (Pict. 1-8) have too many high-cultural connotations (either in style or in the use of the materials), and are too close to the usual style of the architect to give even the impression of an environment built with community participation. Many participatory projects actually presents that problem. They are making a doubtful use of the community concept. Tzonis and Lefaivre rightly point out the internal shortcomings of participatory architecture, as well as the weaknesses of their theoretical support. It should be mentioned however that the article in which these comments appear is overstated in a number of points, and that the need for the authors to present their own prophecies about the future of architecture leads them to use unverified assumptions in order to support their argument. Under the heading “Populism”, a number of

Pict. 1-8: Villagio Matteoti, by Giancarlo DeCarlo.
different practices are grouped, whose similarities are everything but obvious; their general rejection of Populism leads them to refuse both practices connected to the use of vernacular elements in composition system and to the participatory approach. The weaknesses of the latter however cannot be compared to the fundamental problems encountered with scientism and sociologism (which is also a form of Populism, according to Tzonis-Lefaiivre. Participatory approaches have at least the theoretical potential for working.

1-34: Levels of participation can actually vary a lot. The concept itself has many potential advantages. Ranging from a Sites & Services project to Habraken’s supports, they are likely to give more or less possibilities of personal intervention from the users’ part. It can relate to an ideology which is an alternative to the dominant one. It does not necessarily imply, like in the first case, a strict obedience to a pre-established order. But in western societies, there is no way the users can completely reject the ordering influence of the infrastructure. In almost every country now, infrastructure is installed through production systems which are out of control of the inhabitants. This mean that at one time, the order defined by the infrastructure technology will superimpose on the order defined by the users. Possible interferences between the two orders should then be carefully studied, in order not to subjugate the users’ influence.

1-35: The hypothesis that a more human or more convivial architecture can arise simply by making the users involved is infirmed by evidence, as shown by experiences like De Carlo’s. Moreover, it rests on the implicit assumptions that users have somewhat more concerns for human beings than architects, and that they will all ignore their own interests in order to achieve a community-fitted design. Participatory design as such is not sufficient to solve the architect-in-housing paradox: its recuperation by developers, speculators and architects shows how it can be co-opted by these people using participation as an ethical shield. One could argue that the problem is out of the realm of architecture, while the concept in itself is a valuable one; but this would be negating the basic relationships linking architecture, money and power in many societies. Its interest lies more in its use as a multi-purpose strategy (for diminishing costs, for making people responsible of their houses, for the establishment of community links) than in what it can bring to the architectural design by itself.

1-36: The kind of city Gaudin and his peers would like to create is unconceivable in the socio-cultural framework of their practice. The two paradoxes mentioned in paragraph 1-22 are active here: norms and conventions and practice autonomy of the architect in respect to his/her own context. They can be discerned both from the written and from the built works.

1-37: A single glance at a project like Evry-Courcouronnes, near Paris (Pict. 1-9) allows us to see to which extent the architect is still concerned by the acceptance of his work as a work of art. To be considered as such, Gaudin’s works can by no way incorporate elements directly extracted from the popular culture. All these elements are to be reinterpreted, relocated in a context which destroys their original connotations, and impregnates them with a new set of meanings. “High-culturization” in a general sense would be an appropriate name for such a process - something similar to Anton Dvorak’s transcription of a negro spiritual theme in his Symphony for the New World; the word “architecturalization” could be used in this specific case. Seen in this light, the big bare white facades of the project take a strong modernistic connotation. Together with the refusal of any direct reference, the conscious use of evocation instead of quotation, the passion for volumes
and modernist leitmotifs ("architecture is about space"), they establish a filiation with the works of architects such as Le Corbusier, Mallet-Stevens and Pingusson. Austerity, asceticism, simplicity, silence: "Architecture is not there to speak: it is there allow people to speak" (over-generalization of a specific practice method); "The problem is to be reconciled with complexity, but to express it with the greatest possible ascetic" (asceticism as a required discipline, expressed in a self-contradictory statement) (Gaudin IFA 1984, p. 61 and 51). It is however worth mentioning that the architect does not even try to appear objective: his preferences are clearly shown and indicated. Preconceived notions in aesthetics and architecture lead him to clear definitions of "good", "wrong", "bad", "right"; through the conventions he thus establishes, rejection of built works for reasons of "non-architecturality" is possible in this frame of thinking.

1-38: The quotation of paragraph 1-31 is explicit in illustrating the second paradox. Gaudin's criticism of the architects who, during the thirty black years of French architecture, were working in complete agreement with politicians and speculators is extremely hard. Working mainly in the field of social housing, he constantly protests against the amount and the importance of constraints (financial as well as normative) with which he has to deal; acknowledging these limitations as strong indicators of the nature of a dominant ideology, he has nonetheless to work in the framework that they define, in order to be able to build at all.

1-39: However, Gaudin's work carries an implicit hope to gradually provoke a kind of social change, as infinitesimal though it might be. This hope is not clearly mentioned, since no architect of the eighties would try to come back to anything close to the social utopias of the early century; but the exploration of the very limits of the current practice field can lead to the insertion into the fissures of its limiting boundaries. This point will be elaborated in chapter V.

*Picture 1-9: Henri Gaudin in Evry, France*
1-40: As we have seen above, the conflicts between Gaudin's writings and his works come mainly from the confrontation with the context of practice. In this context, the architect has certain obligations, explicit or not, which prevent a direct correspondence between his thought and his work. But the thought in itself is promising. Starting from the very general premise that the city is basically a place to live together leads to a vision of the urban environment which acknowledges people and their different levels of collectivities as the raison d'être of the city itself, and as the first thing to consider when starting any urban intervention; the increased separation, between people and city areas, introduced by legal and administrative policies can indicate either a complete ignorance of the desires of an urban population - it should be then regarded as a side-effect; or a semi-deliberate policy oriented towards the installation of a panoptic state system (see Chapter IV): transparency allows ideal control. The kind of city Gaudin is looking for is located out of legal and administrative systems; its global space organization is not the representation of a political order, but the result of small incremental additions, each of them having their own idiosyncrasies, taking into account the previous ones. It can occur only in areas where the legitimation of built forms does not call for aesthetical norms and artistic conventions - that is, in environments where architectural practice is not active. Such places exist today in many developing countries of the world, where they represent for millions of people the usual way to dwell. These places consist in the general field of squatter settlements.
Chapter II

A Multiple Concept With A Thousand Faces
Introduction

2-1: The concept of "squatter settlement", in a very general way, refers to a settlement established by a group of people without official authorization on a piece of land which does not belong to any of them, and which can be publicly or privately owned. A cursory exploration of the existing places which might meet this definition reveals a tremendous variety of settlements, whose history, growth, size, modes of tenure, systems of control, construction materials and techniques, socio-economic patterns and relations with the official authorities can follow almost any scheme. From the slum whose upgrading is an emergency to the almost established village with a school, an hospital, a mosque and a judicial court, they seem to escape any definition more precise than the one above. Replacing the term "squatter" by "informal", "spontaneous", "marginal", can only lead to further confusion (Peattie 1980 and 1987, Sanyal 1988). The exploration proposed at the end of the last chapter requires at least an attempt to establish the limits of the definition.

2-2: This chapter is an experiment. Instead of trying to provide a more accurate definition of squatter settlements, I will present seven accounts made by authors whose backgrounds and purposes present many differences. Through the information provided by some of them, and through critical comments made on others, arguments on which this thesis is grounded will be substantiated in the next chapters. Through the variety of modes of representation, a kaleidoscope will be displayed; its elements will not be real settlements, but representations through occidental eyes. What a squatter settlement is a question in which I will not commit myself. What is the mental representation of it in the western world cannot be answered by a single definition. The multifold image presented in occidental literature will certainly not be comprehensive at the end of this chapter. Influential authors are missing. I
have tried however to provide the reader with a
glimpse of this variety of possible interpretations.

2-3: A comparative survey has first a rather pragmatic
purpose: presenting side by side different representa-
tions of squatter settlements avoids reference to a
hypothetical fixed definition. The decision to limit this
survey to the occidental world comes from the fact that
the concepts thus defined are the basis for develop-
ment policies which are imported in these countries.

2-4: The second and more abstract purpose of this
survey concerns the problems of concept identifica-
tion and validity of representation. These are by no
way new ideas in philosophical or critical studies. In
one of the case studies below (Peattie 1980), fieldwork
is used to reconsider the practical consequences of
three concepts, and to put back into question their
existence as definable entities. The position of this
thesis is that the definition of a concept is always
questionable; since it rests on the elaboration of a
mental image, its communicability depends on the
existence of an pre-existing set of such images which
would be indifferent to the thinking subject. The exis-
tence of these is denied by many authors. I will not
present here an argument on the validity of the concept
of “concept”, which would lead to an untenable posi-
tion. I will rather make the following case: discussing
the validity of a concept in a field of study already
implies the assumption that a different conceptualiza-
tion of that field is possible. The new one does not
necessarily infirm the first; it just shows the necessity
to acknowledge the fact that different categorizations
of the same entity can be simultaneously valid.

2-5: The use of representation has two purposes:

a) - To show the influence of the surveyor’s back-
ground and of the status of the work on the separation
in concepts.

b) - To delimitate the conceptual field of squatter
settlements; that is, the set of categories constituting
the structure of the different conceptualizations.

2-6: If the validity of a concept rests on the uniqueness
of its definition, then valid concept are certainly un-
common: everyday’s experience demonstrates the var-
ety of individual definitions, even for seemingly ob-
vious concepts. The line of thought exposed in the first
chapter acknowledges the possible existence of simulta-
naneously valid notions appliable to the same object
and for the same purpose: the validity of a notion is not
linked to its universality - an obvious distinction which
is more than often ignored, as will appear in this
chapter. As in Riemannian geometry, where every
event-object is linked to a local space/time, local and
momentary autonomy/coherence of the conceptuali-
zation will be considered as sufficient validation crite-
ria in the following case studies; my investigation will
focus on their inherent (and probably unavoidable) limita-
tions. Thus, the general conclusion of this chap-
ter will not propose a unique redefinition of the con-
cept of squatter settlement - something like a new de-
velopment tool, adjusted and modified through our
previous mistakes, allowing us to go back in the old
colonies ready to undertake the realization of a new
world for the benefit of everyone - and especially for
their enrichment. The implicit idea which is tested
here is that the structure of the concept of squatter
settlement (defined as the categorization of the real
world on which the mental image suggested by the
concept is grounded) is not likely to be modified
during the process of study; if the surveyor does not put
it back into question, an intervention based on the
survey will be influenced (not to say determined) by it.
In other words, starting an intervention process with a certain vision of the world in mind will lead to an intervention whose aim is actually to create this world.

2-7: A) The selected accounts are the following:

1 - Klong Toey in Bangkok, by two Thai students using Horacio Caminos' methodology.
2 - La Rocinha near Rio de Janeiro, by Didier Drummond
3 - Anand Nagar in Calcutta, by Dominique Lapierre.
4 - Rouse Avenue in Delhi, by Geoffrey K. Payne.
5 - Bogotá, by Lisa R. Peattie.
6 - Four settlements in Colombia, by Edward Popko.
7 - Three settlements in Indore, India, by Witold Rybczynski & al.

B) The structure of the surveys is as follows:

a) Reference.
b) Status of the book or paper in which the survey takes place: category of the work and target-audience, as shown by the analysis, and as told by the author when relevant.
c) Status of the analysis in the survey: what role does it play in the author’s argument.
d) Reduction and representation: which elements are selected from the whole settlement, what is the representational media, how does the representation coincide with the intentions.
e) Author’s position and categorial frame: what is the author’s context (if information available), how does it relate to the survey, what is present and not present in the analysis - that is, where is the squatter settlement located in the author’s world.

C) This analysis does not pretend to be completely detached from the object of study. My personal position will clearly appear alongside, since it has been shaped among other things by many works of this kind; and the general argument developed in the next chapters will be partly but explicitly based on the conclusions of some of these surveys. This choice of privileged referential works does not come from the content of the works themselves: it is based on the theoretical and philosophical studies described in the first chapter. In order to legitimize this process, connections between these external realms and the surveys will be made whenever they are relevant. However, evaluations and critical comments on the studies will be made only in the last two parts of each account.

This chapter is intended to set the ground for the next ones, by introducing a part of the “raw material” used for them, and as a first layer of critical comments. These can however be considered as conclusions for each of the seven case studies. But the chapter itself will remain open to the next ones.

2-8: The general selection of the case studies also introduces an unavoidable bias in the work. They are spread over almost fifteen years, from the late sixties to the early eighties. In this way, it was expected that a general evolution of the concept would appear; I would argue that it consists more in a steep shift than in a smooth evolution. The case-studies should allow us to test the validity of this last assumption. Linking each survey to the contemporary idea of squatters can help us to establish relations between all of them, avoiding the bias introduced by the change of opinion about the topic. An argument could be made: even when the squatter settlement was not yet generally considered as a respectable entities, many thinkers were already regarding them as such (Pétonnet 1983; see paragraph 4-49). On this particular issue, the history of ideas, as defined by Foucault (Foucault
1972) can help us. Ideas here are not the concepts developed by knowledgeable researchers in a particular field; they are defined by public opinions, common sense, general consensus on a particular topic. They constitute the object of study of such a history, as well as the way they do affect policies, design processes, technologies, conceptual and perceptual tools. The evolution of the concept of squatter settlement mentioned here is considered to have occurred in this field; but researchers specialized in informal processes may as well have had the actual idea in mind from twenty years on.

2-10: Structure: The book is divided in two parts. The first one is an analysis of nine urban dwelling environments in the city of Bangkok, using the methodology developed in the late sixties by Horacio Caminos. The second is an urbanization project taking place in a huge swampy squatter settlement (Klong Toey, 30 000 inhabitants at this time). Between both, and articulating them, is a comparative evaluation of the nine case studies through the data gathered from the analysis. The upgrading proposal, according to the author’s statements, “is based upon the study of existing housing system and the relationship between the people and their dwellings”.

2-11: Status: The book is meant as “a tool for the formulation of housing policies and programs”; “a tool for reference and information for those concerned with the physical planning of residential developments; a tentative set of guidelines for those involved in the planning of residential developments; a source of “feedback” for those involved in planning of future residential developments in Bangkok”.

2-12: Status of the analysis in the book: The Klong Toey survey appears in the two main sections of the book, as one of the case studies and as the area selected for the urbanization project. The case
study is meant to provide the planners with a set of data and parameters which can then be reused as guidelines to define planning and design policies.

2-13: Representation and reduction:
Caminos' method can be described as a reduction of any housing environment to a set of quantifiable and comparable data. Its complete description can be found in the book "Urbanization Primer" (Caminos and Goethert, 1978). The analysis follows a methodical sequence. Comments on the different steps will come later. The sequence is illustrated by the drawings below:

a) - Representation of the layout. Build objects are represented in black over a white background (Pict. 2-2).
b) - Land use pattern, in terms of residential, commercial and industrial uses. (Pict. 2-3).
c) - Locality circulation pattern: vehicular, pedestrian, water transportation. (Pict. 2-4).
d) - Selection of a locality segment for quantitative analysis of land use. Allows the definition of construction types, an inventory of utilities, services and community facilities available. Representation of the segment by an air photograph and by a plan similar to the first one (Pict. 2-5 and 2-9).
e) - Selection of a block plan in the locality segment, allowing calculations for density and percentages of public, semi-public, semi-private and private spaces. Calculation of two parameters: the "network efficiency", defined as the ratio between the network length and the area serviced, and the average lot area. These data are then presented under the form of square diagrams, which are Caminos' mark (Pict. 2-6). Data on the population income and on the age pyramid are also provided.

Picture 2-3: Land use pattern.
2-14: The representation of Klong Toey through Caminos methodology is a set of numbers, sometimes visualized through diagrams. The need to compare different areas with as few data as possible leads the author to reduce all of them to a set of data which is not only quantitative, but also discretized: continuous gradations are divided in steps, as can be seen in the analysis of services (the steps being "none", "limited", "adequate") or in the public-private gradation.

2-15: The first picture is called the "locality plan". It represents the settlements as made from either "buildings" or "spaces". It shows a lot of very small buildings, separated by what appears to be residual spaces. External spaces play an important role in squatters' life, often more important than indoor ones, as demonstrated by Payne in his Delhi case studies (par. 2-21 and seq.). Were the external spaces connected to the houses differentiated from the collective or actual leftover spaces, the "residual" would have appeared much more structured. One can argue that there is certainly an important difference between the use of such spaces in India and in Thailand; but Caminos' methodology applies uniformly to any urban dwelling environment: even the Rouse settlement would be represented in the same way. It is worth thinking what kind of environment can be correctly represented by such a map: for instance, any environment where open spaces are all public, and where the limits public-private are physical limits. Examples of such environments are provided by occidental city centers.

2-16: Picture 2-3 is called "locality land use pattern". The settlement is clearly separated in three different zones, corresponding to "residential", "commercial", "industrial". Mixed use land is not represented. The text which comes alongside the photograph says: "artisan and small home industries can be found
throughout the community with no significant concentration in any particular area". Nonetheless, no provision is made to represent such a mixed use. Some of the next surveys will precisely show that mixed use land is one of the specific aspects of squatter settlements (Peattie 1980, Payne 1977). In Thailand, mixed land-use is particularly common - shop-houses appear even in regular housing environments. Here, the settlement is considered as entirely zoned. This illustrates the inappropriateness of the methodology to the study, and is a strong indication of the kind of urbanization proposal which will follow.

2-17: Picture 2-4 shows the locality circulation pattern in terms of vehicular, pedestrian and water transportation. The following comments apply:

a) - The “pedestrian network”, as represented, is unable to reach all the houses represented on the locality plan. The level of resolution of the analysis is too low to reveal all the features of this labyrinthial pattern. On the other hand, it is perfectly fitted to the main circulation roads surrounding the settlement.

b) - Montaigne’s quotation (par. 1-16) is illustrated by this picture. The big bare white surface between the traces of the pedestrian paths is like the glare of too bright a light preventing the surveyor from seeing the finest details of their object of study: the “penetrating clarity” of the rational behind the methodology has blinded the researchers.

c) - The representation of the main pedestrian axis only, as well as the zoning division of the previous pictures, appear as ways to incorporate the area in a framework where the methodology is appropriate: to reach this objective, the reduction of the settlement for study purposes is accompanied by a transformation. Through the design and the eventual implementation
of the urbanization project, the settlement will be made conform to the criteria used for its analysis.

2-18: Picture 2-6 shows a locality block plan. Despite the mention that residents use open spaces close to their houses to grow fruit or vegetable gardens, there is still no trace of these exterior spaces in the picture. The houses are simply traced directly from the aerial photograph (Pict. 2-9). The final diagrams are finally providing a way to summarize and to visualize the quantities derived from the study, which is completed by four photographs, a plan, a section and an elevation of a typical dwelling, and by elementary sets of physical and socio-economic data.

2-19: The middle-part of the study, called “evaluation”, puts together the diagrams of the nine case studies, allowing direct visual comparisons between them. It also organizes physical data and facilities into matrices. According to the author, the purpose of the case studies was to provide guidelines for the urbanization proposal. Looking at the latter (Pict. 2-7), it appears that the connection between them is weak, even inside the framework of the study. The original diagrams for the Klong Toey settlement and the new ones for the urbanized area are fundamentally different, ideologically and physically. The main guideline of the proposal is explicitly stated: maximize the land use efficiency. The result of the study is an obvious demonstration of the total lack of consideration for the value of the existing environment, which is considered as nothing more than a bare land where the planning strategists establish the great gestures of ordering processes. The richness of the established orders is seen as similar to the awkward complexity of an advanced spot of mild. Like a purification ritual, the village is progressively blanked, redesigned, incorporated into the economy and the rule systems of the city.
Uncontextual (because of its indifference to the existing place) and diagrammatic (because of the straightforward connection between land value and suggested building typology), the intervention locates the new settlement in the ideological sphere in which it has been forced from the beginning by the surveyors. To use Deleuze and Guattari description, the striae of the market exchange space have been expanded in the smooth space of the settlement. The use of the term “urbanization” in the very title of the book is in itself a program: without intervention, Klong Toey is not considered as an urban area.

2-20: Position of the authors; categorial frame of the analysis. From the beginning of the case study, the image of an urban dwelling environment is clearly defined in the author’s minds. Separated land use, maximum efficiency, streets organized only in terms of circulation and subjugation of the layout to infrastructure, all pertains to a city whose main purpose is economical optimization. The idea of a settlement as a production system is not dissimilar to Alexander’s (par. 1-20), the difference being that Alexander’s results were directly reinserted in the intervention proposal, whilst here they are hardly considered at all. The diagrams on picture 2-6 are basically similar to a computer coding. Reduced to a quantitative skeleton, the environment is made processable. As demonstrated by the land-use analysis, it is analyzed according to a categorical division defined by the occidental market, which is not put into question in this study.

Picture 2-7: First phase of urbanization proposal.
Chapter II - A Moving Concept With A Thousand Faces

Picture 2-8: Aerial picture of the settlement.

Picture 2-9: Aerial photograph of the locality segment selected for analysis. Compare these two photographs with their representations for analysis purposes, especially in what concern pedestrian circulation.
2 - Geoffrey Payne in Delhi


2-22: Structure: The book is divided into four parts. The first describes the general context of urban growth; the second focuses on issues of urban development, settlement and housing; the third consists in two different case studies in the city of Delhi, while the last gathers the reflections and the conclusions of the first three to describe possible urban futures.

2-23: Status: By broadening the context in which housing and settlement in developing countries take place, the book leads to the formulation of a series of guidelines in terms of housing policies, planning and alternative programs. It is thus oriented towards the production of an alternative framework for squatter intervention.

2-24: Status of the analysis in the book: Geoffrey Payne’s case study is not a self-contained piece of research. It forms part of a general questioning about developments in the fields of housing and urbanization in the Third World during the seventies. Payne basically argues that even if these questions show a progressive relativization of the concepts used to deal with the issue of housing, they still do not go far enough, as shown by the failure of most of the attempts to solve the so-called “housing problem”.

"Concepts of housing and of urbanism which were evolved in the West continue to be widely regarded as valid frameworks for the successful pursuit of development strategies, even though their effect when translated into policies is often counterproductive".

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Picture 2-10: Detailed layout of Rouse Avenue squatter settlement, showing open and enclosed private spaces, commercial areas and services.
2-25: Example are provided to show "how certain and unquestioned concepts of adequate housing served to justify the removal of dwellings which were considered 'inadequate' ":

"Yet the process of slum clearance was shown to use up scarce resources and to actually increase the number of people needing shelter, thereby intensifying the problems such policies were intended to relieve."

2-26: Reduction and representation: Payne's argument is that the central difficulties come from confusing the issues of housing and settlement. Housing should not be considered as a problem, since the majority of the urban poor are actually able to house themselves. Sites and service policies an example of such confusion: though they are able to provide houses (though not necessarily to the people for which they are meant), they seldom consider collective issues. By creating separate individual houses, they are planned for many individualities but do not provide living spaces for communities. The issue of space is actually a major one in Payne's work. His architectural background has probably led him to a particular sensitivity towards it, but we will see with Rybczynski's survey (par. 2-79 & seq.) that the same background can lead to very different results.

2-27: The reduction of the settlement is made along two different lines. The first is a description of the physical housing conditions and tenure status. The second is a study of the relations between people and their houses. The first will be best described by reproducing the array of what Payne calls a "Typology of squatter housing" (Pict. 2-12).

2-28: The house categories are located along a gradation scale going from low to high standards of housing. There is no mention of the specific variations inside one particular type. The question thus arises if these are not important enough to be mentioned, or if they are considered as irrelevant to the study. The classification is meant to indicate both the range of housing types and their relationship to the city at one point in time, and the chronological changes in housing patterns. This array does not explain how housing is used...
or what roles does it play in the inhabitants’ lives. Housing policies concerning intervention are assessed under six categories: Legal, administrative, physical, economical, political, cultural/social.

2-29: In order to evaluate the more complex process of the uses of buildings and space, the relationships of individual units to the whole, and the role that such housing plays in the life of its occupants, a survey of both the spatial and the social structures of the settlement is then undertaken. In this second line, the following methodology is followed:

**Frame 2-1: Parameters of study for the Rouse Avenue settlement.**

- Location and characteristics
  - Official intervention (according to the 6 categories of par. 2-28)
    - Physical layout
    - Housing
    - Commerce and industry
  - The study areas:
    - Spatial/activity survey
    - Social survey
    - Case histories

![Picture 2-12: Categories established for the study.](image)

![Picture 2-13: The range of categories is actually too wide for a squatter settlement. The array can be used for any housing environment.](image)
system. Methodologies are used for an operative purpose; but since they have been generated by a questionnaire, they did not seem to imply a particular view of what the settlement should be after intervention. This impression is substantiated by the last chapter of the book, where proposals do not concern as much housing and settlement as the policies required to set the conditions for their appearance: the “solutions for upgrading” are similar to Turner’s (Turner 1976 and 1983); they do not involve the actual provision of housing. The need for a representation arises from the necessity of defining the settlement in order to let it be as it results from the survey.

2-31: Author's position and categorial frame: The points which will be discussed here are delicate, and I acknowledge in advance the possibility that my conclusions can be rejected based on different works by the same author (though the comparison with Drummond’s survey (par. 2-67 & seq.) indicates that such a refutation is not very likely). The reason for this is that they are based on a few clues grasped “between the lines”, which are not necessarily part of the main demonstration of the book. Sociologists of knowledge have developed great skills for this kind of analysis, and I by no way pretend to be able to follow them. The length of this part is perhaps indicative of the trouble
I had to substantiate the argument. To help the reader to go through it, I will first present its conclusion: if Payne’s representation of Rouse avenue demonstrates his success in broadening the conceptual field in which he locates squatter settlements, his proposals for intervention seem to indicate a different mode of conceptualization, based on a different configuration of an existing set of concepts rather than on the incorporation of new ones.

2-32: Wrong conception of the nature of housing, and a lack of appreciation of people’s capacities to house themselves given resources and infrastructural supports, are the basic criticism made by the author towards existing policies. However, even the reconceptualization intended by Payne does not conflict with the necessity to “discourage the formation of new areas of unauthorized housing and stabilize the situation until new programs can get underway”.

2-33: The idea of using criteria derived from the study of squatter settlements for the design of new housing areas is then proposed. The nature of these criteria is not directly architectural: high density (no land wasted; transport costs minimized; accessibility to resources; infrastructure reduced); mixed land use (activities interaction; transportation reduced; symbiotic use of space; secondary economic activities); variety of plot size (integration of socio-economic groups; buildings enabled to meet diverse needs); local control over housing provision (in terms of location, type, cost). The kind of environment implied by these criteria has probably much more potential to support a collective life than a single-architect pre-planned environment, and distinguishes Payne from many of the thinkers of his decade. But Payne is still a rationalist thinker; to illustrate this point, I would like to submit the following comment to a deeper exploration:

“It was observed that the house units were frequently grouped in clusters of between 10-25 units, each of which related to a communal space similar to those found in rural areas. (...) If this material is used as the basis of planning new settlements in the Delhi context, it should be possible to facilitate the formation of similar aggregation modes by organizing an appropriate distribution of services infrastructure” (p. 213).

2-34: The word “appropriate” is used here in a rather ambiguous way: what would be the reference terms to define “appropriateness”? Installing infrastructure first implies necessarily the design of the layout for the final settlement, that is, the creation of an order by a designer. Methods of upgrading which involve an ordering process are by no way neutral. In Deleuze and Guattari’s terms, they correspond to a shift from a smooth space (that is, similar to the space of traditional cities) to the striated space of the modern city, with all the risks implied: spatial control and determination imposed by ordering processes facilitate to a large extent social control by state or municipality.

2-35: The clarity of such a design almost becomes a
metaphor for the transparency it generates for the different levels of power. It is often argued that the order of a pre-planned settlement is nothing but a consequence of the necessity to install infrastructure lines for the services that people will need afterwards. As it is often the case, this argument considers the planning of the settlement as subjugated by the technological means used for the infrastructure, the order of which having a higher status than the collectivity’s. Examples of an opposite situation are provided by the installation of infrastructure lines in medieval towns, where many precautions are taken to preserve the existing environment, and to adapt the infrastructure to it. The question of knowing why we should take analogous precautions for squatter settlements is discussed in chapters IV and V. I will simply mention here that the justification for both differs mainly in terms of tense: one refers to the past, the other to the future.

2-36: The first sentence of the quotation of par. 2-67 provides evidence for a very important assumption, also substantiated by Drummond: squatter settlements incorporate rural forms imported and modified to fit their new urban context. Elaboration on this point and on its implications will also come in chapter IV and V.

2-37: The very idea of using criteria drawn from squatter settlements in order to design new housing areas rests on the two following points:

a) - The belief that a squatter settlement is less valuable as an urban form than a pre-planned design; that is, the non-recognition of squatter settlements as a complete urban form. The opposite opinion would lead to a proposal where the urban form would be created on a bare piece of land before the installation of any service lines.

b) - The belief, already stated in introduction, that the daily/sublime paradox can be solved by the use of an appropriate method of composition.

2-38: Comments on this last point can be made along two lines:

- The general set of comments about formalism that goes on in architectural critique can be applied here: the kind of formal resemblance proposed does not show a real concern for the mode of production of the final object. Generated out of the original production frame, it can only bear a mimetic resemblance to the reference model - even if the similarity with the model is made total. The fact that it can hardly be made so in real life opens another door to criticism. If arguments can be made in favor of formalism in architectural practice, they do not seem to be appliable to the particular framework described here.

- The composition system implied by architectural design introduces levels of regularity and periodicity which are much higher and more precise than in a self-generated environment. If the proper working of the settlement is only weakly related to its geometrical pattern, the" rationalization" of its spatial order has many conceptual and ideological undertones (see chapter IV in this thesis).

2-39: The composition process implied by Payne’s view is reported at the level of the infrastructure layout (and thus at the level of the general layout of the settlement). This illustrates Payne’s distinction between housing and settlement: the design of houses is left to the users. The approach can thus be considered as a “collectivity conscious site-and-service”, leaving the generation of houses and collective spaces to the community. In architectural terms, it is certainly a
major improvement: early sites-and-services projects were using only economic efficiency criteria in the design of infrastructure lines, without regard for their profound influence on the future evolution of the settlement. The incorporation of societal concerns allows Payne to establish a new set of design criteria; but the intentions remain unclear: informal settlements and design-created environments do not have the same status. More precisely, the legitimizing argumentation of the formal product is not located in the same sphere for both. Payne’s designed settlements would use the precedence of a given socio-spatial pattern, established along a chronological sequence, as a legitimizing concept for a purely spatial creation. If a process of form legitimation can be defined for squatter settlements, it would probably refer to tradition and to social uses; and it is the result of such a reference which will be used as a starting point for Payne’s work. The limit between the architect’s position and a populist justification is not clear in that respect. An example of a design process starting from a survey methodology similar to Payne’s is shown in chapter V of this thesis.

2-40: A few assumptions in the text show that the architect is actually concerned with the problem of form replication:

“This is not to advocate that the specific spatial and physical forms which have been evolved within traditional indigenous or contemporary self-generated settlements should be duplicated on a wider scale” (p.194).

But this concern seems much more linked to an assumption of inadequacy and of devaluation of these forms than to a disregard for formalistic approaches.

2-41: It actually seems that Payne’s proposals are still concerned with the possibility for architects to design collective environments, though at a rather basic level. Learning from the previous attempts by looking for the reasons for their failures, he argues that the process itself is valid, and that adjustments can be made to improve it in the future. Like many contemporary authors (see Peattie’s survey, par. 2-54 & seq.), his major point comes from a questioning of the concepts used in the field of development. The existing conceptual framework in which squatter settlements are inserted is expanded; but the framework for potential interventions is not: it is rather a reconfiguration of the concepts included in the existing one.
3 - Edward Popko in Colombia


2-43: *Structure*: The book has two main divisions: the first between images and text, the second between three categories of photographs. The text part, after a foreword by Lisa Peattie where she paraphrases a meaningful passage of her book *View from the barrio*. 
meaningful passage of her book *View from the barrio*. is a brief essay on the contemporary state of squatter settlements, followed by a critical review of the main policies used in the field. The image part is a set of photographs classified according to the following three topics: First steps and claims; The family at work; The house and the future. These sections follow the chronological evolution of any settlement; Popko considers them as "phases".

"Transitions is divided into three short sequences of photographs. Numerous barrios were photographed in order to show what changes typically occur over about fifteen years. Each sequence is organized around one or more issues that stimulate development at that stage. " (p. 3).

Most of the photographs are accompanied by a one-line (at most) commentary. They are not followed by any conclusive part, which is an indication of the author's will to make them self-evident.

2-44: Status of the book: The introductory part is quite explicit on this point:

"Transitions is about Colombians. It is their book." 2-

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Picture 2-21: Invasion tents make claims to lots; first definition of streets.
"Transitions is a photographic documentation of squatting." (p. 2). "Transitions attempts to dispel some of the myths that surrounds squatters by presenting visual evidence of what very low-income families in an urban setting have been able to accomplish for themselves." (p. 3). "Transitions introduces photo documentation illustrates photo documentation into a largely illustrationless body of research. The accompanying text develops a typology of slums and explains how they work, who their settlers are, what they want, and what planning issues they raise." (p. 3). "We tend to overindulge in single images while losing sight of an argument in which the sequenced photograph offers supportive evidence. In this sense, Transitions is an exploratory piece of research." (p. 4).
Even though the documentary aspect is not to be neglected, the analysis is a substantiation of Popko's argumentation of squatter settlements, as summarized in the text part. This purposive aspect looks weak however, mainly because the strength of the photographs totally overwhelms the few guidelines provided in the text. The illustrations are sufficient in themselves; if there is any stronger purpose to be found, it could be described as a visual manifesto for the development of an architectural consciousness towards squatter settlements:

Picture 2-23: This picture and the one on the following page (2-24) represent two different areas of the settlement. The evolution towards a consolidated neighborhood is clearly visible.
"(...) Colombians...) have taught me what I know about architecture and planning in developing countries. (...) The Pulido family in Bogotá should have charged me tuition for all that I learned about building one's home" (p. xiii).

2-46: Reduction and representation: There is an explicit will, through the sets of photographs, to describe the settlement in terms of peoples' eyes. Their sequencing has also the purpose of telling a story. The quality of the pictures and their careful selection gives an aesthetical quality to what they represent, and in some cases a preciousness, which is generally absent in accounts of such environments. Popko has been criticized by local architects and planners for giving such a representation. He legitimizes it by the recourse to peoples' opinion:

"An ever-present problem in story telling with photographs is that when sequenced they often take on interphoto meanings that deny their original context. Although this characteristic can add power to a pres-
Although this characteristic can add power to a presentation, it can also destroy the authenticity of the work. Periodically I would solicit criticism from the settlement residents as well as from professional and friends to ensure that I was not creating false impressions” (p. 23).

2-47: It can be argued that the squatters, knowing that these photographs of their homes were going to be published (Popko 1978, p. 22 ), oriented the selection in order to give the nicest overall representation; this can explain the reaction of the local planners, who are more likely to be concerned with showing the necessity to improve the place than by its eventual qualities. This leads to the following possible alternative regarding Popko’s intentions:

a) - Either Popko’s intention was to give an image of
the squatter settlement "as it is", in which case he still remains in a framework where objectivity is an absolute concept;

b) - Or his idea was to provide an alternative view as a point of departure to modify the ways interventions were done at that time; then the idea of referring to the squatters' point of view is adequate - even if the squatters' attitude is not fully endorsed.

This alternative will be discussed in par. 2-52 & seq. "Squatters are a solution" say Turner and many others; but Popko adapts the argument to the evolution of the squatter phenomenon at his time:

"My biases are clear in this work. In general, I think squatting has been a relatively successful interim solution for low-income housing. My enthusiasm is guarded, however. I am concerned with the long-range consequences of a process that disregards overall planning for the sake of individual gains. Squatters often do not perceive the consequences their growing number have for themselves or the cities they invade." (p. 3).

2-48: Some of the photographs come with a very brief
caption, for instance when they are not self-explanatory, or when Spanish inscriptions on the picture require a translation. The association of these few words with the pictures is sometimes done in a very subtle way, giving to some of them a supplementary depth; in all cases, the message transmitted is the photographic one: words are not supported by the photograph, they only help to define their intended meaning.

2-49: The high quality of the framing, the perfection in the darkroom work, are worth mentioning; but overall, the value of Popko's work resides in his sensitivity to people and in his respect for them. No telephoto lens was used: preference has been given to non-natural poses, instead of pictures taken without warning. The reduction here leaves the reader with a completely visual set of data: interpretation stops at the surface of the material objects, even if the captions can provide
the reader with guidelines. Even so, lots of thing are left for the reader to select. Almost each picture tells a story - even if, in the second section, the author indulges himself somewhat too often in representing children: kids, squatters in particular, are irresistible; they are an easy way to improve the general picture of the settlement. Their presence here is somewhat weakening Popko’s general argument, whose soundness does not require this sales gimmick.

2-50: This brings the point of defining the intended audience for the work. The grasping of each and every message included in the pictures requires a prior knowledge of the field which is not that of a layman. Local architects and planners strongly criticized the author’s position when the book was released. It does not seem exaggerated to say that the book is meant for two implicit purposes:

Picture 28: New construction surrounds temporary shelter.
a)- Illustration of the philosophy of squatter environments developed by authors like Turner and Peattie (who was actually Popko’s advisor), for people already in agreement with the work of these authors;

b)- Modifying for the general public the global concept of squatter settlement. The presence of eye-catching pictures (like the photographs of children) becomes then justifiable.

2-51: The pictures of families in their home, of daily activities, of the evolution of houses, the interest in seemingly insignificant details, the general idea of telling stories about people instead of giving accounts of their socio-political or economical records, make
from this book one of the most moving accounts of these environments. It is important to note that the survey leading to the book is the longest of all the accounts presented in this chapter (about three years), and that the general methodology is a model that others interested in the field could consider.

2.52: Author's position and categorial frame: Unlike Caminos, Payne and Peattie, Popko demonstrates not only a concern, but also a strong respect for the visual aspect of squatter settlements. The pictures showing the appearance of streets are worth mentioning here (see Pict. 2-21): the importance of these embryonic orders as the first traces of a future settlement layout is seldom considered by slum surveyors (who would rather survey an installed settlement), and Popko himself, with his emphasis on the evolution of the settlement, could have elaborated much more on the
urban program announced by these traces. It nonetheless shows that for the author, the settlement is not something which stands still: its chronological dimension is decipherable through direct visual elements. The same concern is found in Drummond's account (par. 2-67 & seq.).

2-53: In the direct line of Peattie's work, Popko reverses an established institutional system of values, and begins his work by what he considers as the most important issue: people. Using the work for intervention purposes would require to complement it by quantitative data; but such an aim is not even present.
as a motivation - or if it is, it is not very convincing. Popko is extremely careful at each step of his survey. Being aware of the influence of the selected methodology on the final product, he provides the reader with a three pages warning meant to focus precisely on his own biases: care is taken not only in the selection of the photographs, but also in providing guidelines for their interpretation. This allows us to locate Popko in a frame of thought where the meaning of a concept is constructed both by the speaker and by the listener: it is not a given concept; and thus to reject the proposition (a) of paragraph 2-50.

2-55: Structure: The paper is divided into three parts. The second one is itself divided into two sub-sections corresponding to two different fieldwork strategies. The second part is an account on "field explorations of small enterprises in Bogotá, Colombia"; the first sub-section concerns the survey of the economic structure of a particular settlement (First strategy: about the marginality theory. Inventory -as complete as possible- of all the enterprises located in a more-or-less typical neighborhood; mapping by category. Interviews: on way of conducting business, means of entry into the market, problems in carrying out the activity). The second one is a study of informal commercial activities in the city center of Bogotá (Second strategy: exploring the ILO's (International Labor Organization) implicit focus on occupations. Typical informal sector jobs. Interviews of practitioners revealed organization patterns and regularization systems by public authorities). The third part is a discussion of "the concepts of economic dualism, informal sector, and marginality", on the basis of the field experience.

2-56: Status: Research paper. "Fieldwork in Bogotá is used to evaluate the concepts of marginality and the informal sector as tools for understanding the urban economy in developing countries." "This paper is an attempt to understand the functioning of the urban economy in a developing society through the techniques of anthropology".

2-57: Status of the analysis in the book: According to the author, the analysis is meant to substantiate the argument for her reevaluation of influential concepts in the field of development. The paper however develops independently along two lines, which is illustrated by the two assertions above: Concept reevaluation on one hand, and understanding the urban economy on the other. Substantiation of the former does not require a complete account of the latter, and this study could have easily been separated into two different papers with two different purposes. The status of the analysis has thus a degree of ambiguity: looking like an economy oriented self-sufficient piece of research, it also serves as a basis for an argument more related to the sociology of knowledge.

2-58: Representation/reduction: The understanding of the economic structure is made through an account of small enterprises in the settlement and through the relations of the internal economy with the economy of the city. The two strategies are said to be "associated with one of the concepts being explored here". First stage:

"I made as complete an inventory as I could of all the
enterprises located in a more-or-less typical neighborhood, mapping the location of each enterprise by category and interviewing participants in the various sorts of enterprises as to their way of conducting business, means of entry into the occupation, and problems in carrying out the activity”.

Second stage: interviews with the practitioners of “occupations cited in the literature as typical informal-sector occupation”. The spatial description of the settlement is rudimentary. No visual or diagrammatic representation is provided, even though the enterprises are said to be “mapped by categories”. Very little correspondence is made between the physical and economical structures of the settlement.

2-59: The representation is made through general figures concerning the whole settlement (numbers of commerces and manufactures, patterns of work and dwelling; some of this information actually comes from previous fieldworks). A fine degree of resolution is achieved through the accounts of personal and individual problems and individual economic circumstances, implicitly meant to be typical. For instance, details such as the division of any merchandise in almost infinitesimal parts in order to provide affordable shares (cigarettes or chewing-gums sold one by one, cabbage or pineapple slices, pencils, charcoal pieces) require a close look to be detected. In the general economist way of thinking, these kinds of observation would be considered as infinitesimal elements of a much broader system of money exchange, which would be their object of study; something like a biologist who would not consider individual red globules in studying the oxygen-CO2 transfer, focusing instead on the breath gases by the analysis of their composition. Problems with administrative setting, self-limitation of the local market, are mentioned.

The connections between the so-called “informal” and “formal” markets are described in order to illustrate the limiting character of this dualization; this assertion is also substantiated (through field observation) by the bidirectional relations between the economic structures of the city and of the settlement.

2-60: The constant connection between economy, family, and sometimes social patterns is a fair demonstration that the settlement is not reducible to an economic structure. It is worth mentioning that Peattie’s specific style brings with itself the refusal to convey a single image:

“When I arrived at the factory, one man was making four-foot pipes by wrapping flat sheets of clay around a cylindrical form and shaping and smoothing the pipe on a kick wheel. His teenaged daughter was pounding the clay into suitable flat sheets on a wooden table with the aid of an enormous mallet. Up on the next level a boy who looked 15 was making ceramic pipe elbows on another small kick wheel at piece rates, and a tiny boy was sweeping the shop. A girl of 12 told me proudly that she too could make pipe on the wheel. According to the owner, his children work in the plant during the day and go to school at night; he cannot yet afford to have them in school by day”.

2-61: There is a vivid quality in that description which is not dissimilar to the one found in the less romanticized sections of Lapierre’s City of Joy: a way to tell a story while providing a high density of information, both on a specific field -here, a particular process of production- and on a more holistic view of the life in the settlement, where the intricacy (and even the inseparability) of the different structures is implicitly but clearly recognized. Indications for the existence of weaker structuring systems are provided, but not
elaborated on: "Giving credit would constitute a special service and a way of connecting a tienda with a set of customers", even if some shopkeepers would argue that "it is a sure way to ruin".

2-62: The account also shows the problems encountered by the squatters when they try to improve their social status, for instance the impossibility for sellers to go into "formal business" because of costs. The only direct comment on housing considers it as one of the major channels of investment for low-income people in cities of the developing world. Even if this view, originating from Turner's work (1967), is a valorization of buildings which are still considered as junk by the main stream of the occidental as well as the developing world, it is too limited here to be considered as a useful part of the demonstration. This might be linked to a basic selection of study parameters which excludes this specific element; but the text itself suggests that the house is classified by the author in the category of "local enterprises".

2-63: Author's position and categorial frame: The author's position can be derived from the conclusion of the work:

"The concept of an informal sector is helpful in calling attention to the existence of a vast spectrum of economic activity of varying character which seems to proliferate "on its own" beside the showpiece industries of development planning. The shift in attention is helpful especially since these activities tend to be both under-valued theoretically and under-enumerated in statistical practice. Yet when one looks at these activities, the conceptualization of them by the ILO tends to lead us astray. (...) Dualistic generalizations, as well as the implication that the occupations identified as informal are reluctantly entered, direct attention away from the nature of economic processes at work. Economic planners may fall into the hazardous over-simplification of supposing that activities which are not organized according to the bureaucratic patterns characteristic of large firms are not organized at all, and thus fail to try to understand the patterns of organization with which planning has to deal".

Lisa Peattie is directly concerned about the connection between our ways to represent reality and the results of our studies and proposals. She does not go as far as to suggest that the result is included in the process of representation; but she argues on the necessity to reconsider these processes in order to achieve appropriate design policies. It is worth mentioning here that this questioning was not present in her earlier works (See for instance Peattie 1968), and that it probably arose from direct contact with the "raw material" of squatter reality. The "appropriateness of intervention" in social science is usually directed to the prevention of social dislocation, by preserving the elements which support and maintain the patterns of social structure.

2-64: There is a conscious will to limit the parameters of study in the survey, and it would be absurd to comment on the absence of certain parameters when they are simply not the object of the work; but some supplementary information on the spatial environment would have been more than welcome. A more important point here is that the study has actually a very clear purpose. The author knows where she is going from the beginning of the work. She knows the methodology to use, the path to take, the general direction. It can even be argued that she knew what she was going to find from the moment she undertook the work: by her previous experience, by theoretical works such as Castells' (Castells 1973) which are
works such as Castells' (Castells 1973) which are basic readings in the field she is working in, it is very likely that she already had a very good idea of the answer when she began to explore the question. This is typical of a *striated space*: the path of exploration is not a wandering one; it aims towards a known objective. The method implies a parametrization, and thus a reduction of the reality to what are considered the relevant elements of the settlement.

2-65: Then, the position of the author regarding development is to be questioned. By her reconsideration of concepts commonly used in that field, she aims to the design of new policies which will be best adapted to the actual circumstances of the urban poor. If the new representation of the settlement is better than the old, then the policies will be made more efficient. But at the end of it, what is the result for the squatters? What does imply this optimized reinsertion in the general economic framework? This difficult question is addressed in chapter IV.

2-66: Other works based on Peattie’s concern for human beings (like Popko’s survey, par. 2-42 & seq.)) and considerations of style mentioned above demonstrate a rather holistic concern for the environment in general, despite her “tendency to think small”. Recognizing the limits of an anthropological approach (see Peattie 68, Introduction), she nonetheless manages, by these many small accounts, to give a precise image of the kind of life experienced by the squatters. The connections between economy and other systems locate her closer to a “rhizome” model of analysis than to a “root” one, even if the work has, ultimately, a specific aim. But how is it that an anthropologist can call a survey based on people -considered as her particular interest- a look “from the bottom”? 
5 - Didier Drummond in Rio de Janeiro


Structure: The book is organized in four main sections. The first one describes the origins of the migration phenomena, and the arrival to the city: the causes of the favela’s birth. The second one is a description of the urban causes for the favelas burst, followed by an account on the progressive improvement of the favelados’ houses. The third part, called “the collective uses of space”, describes the evolution of the favela as a urban form, connecting it with collective life and to its cultural and political integration. The last part enhances the risks of recuperation inherent in any policy oriented towards favela integration.

2-68: Status of the book: The book is meant to transform the vision of the favela, and to get rid of a few common stereotypes. Drummond quotes two of them:

"The favelas, these magnificent and picturesque shelters for niggers, are located on the hills of the city just like nests crowded with sparrows... At least one of the vestiges of these favelas should be preserved in the ka-

Picture 2-34 and 2-35: La Rocinha, one of the oldest favelas around Rio de Janeiro.
leidoscopic mosaic of the city, like a document of natural life in the middle of civilization". (p. 2)

Or, less romantic:

"A high-density group of dwellings, built in a disorderly manner with inadequate materials, without public services and on lands illegally used without the consent of the landlord." (p. 2)

Drummond's intention is to "place these "external visions" in front of an "internal vision" which the which should hopefully be made less partial by the reality of the favela.

"We hope to be able to help those who are in charge of thinking and to conceive substitutes for slums." (p. 5)

2-69: Status of the analysis in the book: As for a documentary attempt, the analysis is the purpose of the book. The conceptual tools are such that this account cannot be considered only as a documentary: from the collected information are derived conclusions pertaining to different realms: architecture and urbanism, politics, sociology.

2-70: Representation/Reduction: Drummond acknowledges that his view can only be "less partial" than the ones expressed above. This less partial view actually manages to be the most extensive account of these seven surveys. The method is intended to allow the "reading of spaces and of spaces uses in time." The shelters are seen as the basic -not to say primitive- form of all architecture:

"The smallest constructive act is filled with a meaning which is heavy, vital, essential". "Like a biologist can dream of attending the formation of the first cell of a

complex organism, we had the chance to observe the construction of precarious shelters, immediate expression of a vital need.” (p. 6).

The description is constantly connected to the chronological evolution. A detailed historical account is given, both general (migration) and specific (settlement), incorporating data on geographical patterns of migration. The first case-study is inserted in the story of an incoming migrant, with architectural sketches and a photograph of the typical newcomer house, whose inside and outside organization are surveyed. The attention of the reader is directed towards details which are hardly mentioned in most of the case studies: “The architectural expression of these shelters is often very refined”: to be able to detect this refinement necessitates an eye trained to fine observations, which is the case here.

2-71: Rural references are acknowledged as an important significant element, whose presence is only a memory: the favela is considered an urban environment, and the houses are considered as aiming towards an urban ideal model. Construction techniques are extensively provided, as well as their evolution from the newcomer’s shelter to the installed favelado’s house. The stabilization of the favelado’s situation is described along with a survey of a “second-generation” house. The process of transformation from first to second generation is the object of a particular attention.

2-72: The relations between the favela and the city are studied through economic and political issues. The progressive evolution of these relations is connected to the change in the words of popular songs: what the favela represent for the favelado naturally appears in the favela culture. To the opposite of Rybczynski's
survey (par. 2-79 & seq.), all information is related to a chronological evolution. The different plates, considered all together, constitute a real typological study, where architectural sketches are selected in order to show the role of the house at different phases of the favelado’s installation in the settlement. A connection is established between the spatial organization of formal and informal dwellings, revealing certain analogies and showing that in terms of quality/price ratio, the favelado is rather well off.

2-73: In terms of collective spaces, the evolution of individual houses is related to the transformations it introduces at the level of the cluster—the equivalent of a block in the official city—of the neighborhood, and of the whole favela; the evolution of the layout from the first houses is represented through population density figures, patterns of growth, photographs. Social structures, uses of collective spaces, economic practices, exploitation, patterns of dependence between favelados are analyzed at the levels of the clusters and of the neighborhoods.

2-74: The view of the settlement from the outside is also presented through official press quotations and examples of official interventions based on blatantly wrong justifications.

2-75: Author’s position and categorial frame:

“The favelas have been our universities. They showed us to which extent the spatial organization has a determining aspect in anyone’s life, and that from this point of view the architect’s power was completely
The favelado decided not to cut them, in order to be able to reuse them for a future house. This argument, which is very rational, leads to an awkward looking house. Then, one half of it is built over a steep slope. The favelado wanted to paint the facade white, but his arm was too short: the radius of the curve which limits the whitened area represents his maximal extension. Squatter settlements leads to specific transformations of traditional typologies: 'Thousands of farms impossibly compressed against each other along a steep slope'.

Drummond is perfectly conscious of the links between architecture and power. His position towards political ideologies is an external one, but his concern for political care is strong. In the direct line of the French architecture at the end of the seventies, his study focuses on collective spaces, or rather the way these spaces are produced through interrelations between social and physical structures.

2-76: The architect takes alternatively the roles of an historian and of a social critic. The interpretations of the generation of the built form, the diachronic concern present in the whole survey, the significance attributed to infinitesimal details like a single electric bulb hanging from the roof of a house without electricity (Pict. 2-44) shows both the accuracy of the survey and the deep value attributed to the settlement as a built form, not only in visual terms, but also as a system of meanings. The work does not lead to any design proposal, nor to any guideline policies. It is similar Popko's work (par. 2-42 & seq.) by its demonstrative intention; it differs from it by the fact that it goes far beyond the surface of the materiality of the settlement. The following quotation, coming from the last chapter, establishes the difference with Payne's work (par. 2-21 & seq.), and clarifies the point which I discussed in the last part of the corresponding survey (par. 2-31 & seq.):
Picture 2-42: Plate showing a house with construction details and inner spatial organization, enhancing the division between humid and dry zones, as well as the growing from the old shelter ("ancien abri") to the new construction ("nouvelle construction").
Picture 2-43: When the owner of this house got enough money to build a house with sound materials, he rebuilt the old shelter over the new house, thus doubling the inhabitable area. The address here is not real; the next house on the street can have any number on its door. No one, not even the postman, uses the addresses to find the houses: they have no official existence. The importance of these figures lies in the will for urbanization that they indicate.
"Though a few years earlier, it was absolutely forbidden to imagine any urbanization project for the favelas, the prefecture now wants to take them over by using the beginning spontaneous urbanization processes which transforms them in popular neighborhoods. (...) Why take trouble to destroy them, when they manage to do it by themselves? The increase in the standards of living and the birth of a small bourgeoisie are the best allies of the power, which realizes that this urbanization process clears the favela from its poorest inhabitants, which are forced to move towards the periphery. (...) The latter has no limit and is progressively turned into a huge dump, a vast no man's land where all migrants will be able to settle down without disturbing the city". (p. 102).

2-77: Any project meaning to reintroduce the favela in the official framework brings with it the risk to integrate itself in the general market system. The acknowledgement of this risk is at the same time an assertion of the superiority of the favela over the city, established by comparing both its human and urban qualities, as well as the possibilities for environment to be controlled by the inhabitants. The author noticed the qualities of spaces were threatened by the reference to urban models. From the moment the house is built

Picture 2-44: A house with a bulb under the roof, and no electricity. The will to be a "real house" is also present here.

Picture 2-45: Squatter settlement apartment block. Almost any urban activity can be found in the settlement, even usurious landlordship: the rent in these rooms is one half of the average salary in La Rocinha.
Drummond's study is never disconnected from a chronological dimension. The final layout is the result of multiple processes of collective agreements, involving notions of territoriality, individual and group decisions. There is no global plan to be followed; the order of the favela is a piece-by-piece structuring of space, a collective process which constantly dialogues with social structures.
in sound materials, the architectural expression is frozen into cement and bricks. The urban model dominates and the space looses its use value to the profit of a market value.

2-78: The criticism present all through Drummond’s survey is the most important lack of many of the studies of this chapter, and especially the ones whose intention is descriptive. The connections between architecture and many other fields are not seen here as secondary links between separate fields, but as a general territory where all of them are relevant to different degrees according to the demonstration to be undertaken. Getting a threadline in so many parameters is a difficult task. Drummond shows that it can be done by selecting one of the most important and the most often neglected aspect of squatter settlements: their chronological evolution, which many commentators still hesitate to call their history.

Picture 2-50: Electric meter out of the house. The image of the favela is often much more welcoming than the asphalt city’s. Note the address above the door.
6 - Witold Rybczynski et al. in Indore


2-80: Structure: The book is a survey of physical characteristics of three squatter settlements located in the city of Indore, India. The environment is divided into seven categories: house extensions, work places, small shops, trees, public structures, vehicles, access streets. It is studied according to the nature of activities which takes place in it. Each section presents elements coming from any of the three case studies.


"This first volume is part of an on-going project that is studying the physical performance of informal housing in less-developed countries. This study includes spatial requirements, low-cost construction materials, and non-conventional servicing and infra-
structure technologies. (...) We intend, in the future, to expand our activities to a selected number of urban settlements in other less-developed countries." (p. 2).

In a long-term view, the work is meant to set the basis for the establishment of a news set of settlement standards. In this task, "How to begin? Surely, by looking at how the poor actually live". It is to be noticed that the title of the Volume 1, "Space", creates expectations for subsequent volumes dealing with other concepts. But the quotation above does not mention the possibility of expanding the work in directions other than spatial analysis.

2-82: Status of the analysis in the book: The analysis is the purpose of the book. It provides a set of data in a documentary way.

2-83: Reduction/ representation: There is a basic assumption of similarity between the squatter settlements from the same area (the assumption being
implicit, the scope of the area is not defined: could the study be made the same way by selecting settlements over a wider geographic range, such as a province or a country? This assumption legitimizes the division of the study in terms of elements common to the three settlements, instead of structuring it around some geographic repartition.

2-84: The different media used to represent the settlement are measured drawings (redrawn from the field), edited field notes, photographs. The investigation is limited to the space called the "street" by the author (quotation marks included), and is not concerned with the houses themselves. The "vehicles" section seems, at first glance, alien to the categorization.

2-85: Examples of drawing representation are given in the following pictures (2-51, 2-52, 2-57, 2-61). The high quality of the drawing work is worth mentioning. The redrafting of field drawings, as opposed to a direct photograph, allows an explicit selection of important elements in the frame. A general comment applies here: the advantage of this process is that it reveals what could be called "hidden orders", that is, orders which are not immediately and intuitively graspable. Its inconvenience is precisely the selection process it implies, whose results are sensitive to the surveyor's conception of the settlement. It would be worthwhile to present photographs and drawings of the same frame alongside: photographs can not be considered as objective representations either, and a comparisons of the two would be more likely to give an adequate representation, as well as to reveal the biases involved in the researcher's exploration.

2-86: Almost every drawing of the survey reveals a fair degree of accuracy. The scale is clearly indicated. The precision they reach put them at the level of any drawing made by a professional architect working on an a formal design project. Visiting a squatter settlement leads one to wonder whether this precision is real, or if it is only an image. Further questioning puts

*Picture 2-52: Plan: extensions near a river.*
forward the issue of its adequacy for an environment like a squatter settlement.

2-87: A different kind of picture, which is present all through the book (see above), seems to support the assumption that the precision of the draftings is artificial. The illustrations are often sized with a precision of one centimeter, some of them (bath squatting; baby dressing) reaching one millimeter. This precision is meaningless here, for the following reasons:

a) - Human dimensions are not constant, neither in time, nor from one individual to the other.

b) - Activities involving constant moves can only be defined in terms of range of motion rather than in dimensions for a fixed position;

c) - Getting this level of precision for the measurement of human bodies involves an equipment which is unconceivable for a field survey of this kind; besides which it requires that the measured subject stands perfectly still.

2-88: The problem of giving this kind of meaningless precision can be related to the assumption that accuracy is a criteria of appreciation and quality for the work (see par. 1-20 & seq). A relation can be established with the fact that the surveyors have an architectural background: legal norms for architectural surveys, for instance in the definition of floor areas, sometimes lead to calculations whose results are considered as mathematically absurd by scientists: a correct measurement is not necessarily achieved by making a precise reading of rulers, meters or other systems*.

2-89: The issue of adequacy is perhaps more important. Not only are squatter settlements far removed from the precision of normal construction work, they are also moving and changing rapidly. The picture transmitted by the survey tries to present an instant representation, a thin slice of its chronological evolution. To be successful, this would require a data-

* This issue is illustrated for instance in current floor area calculations, where the multiplication of two dimensions with one decimal precision leads to a two-decimal result: \(6.7 \text{m} \times 5.2 \text{m} = 34.84 \text{ m}^2\). The result of the multiplication is more precise than the two length measurements, which makes no sense: errors actually accumulate. A more correct result would be obtained by one of the following ways: either \((6.7 \pm 0.05) \text{m} \times (5.2 \pm 0.05) \text{m} = (34.8 \pm 0.8) \text{ m}^2\); or \(6.7 \text{m} \times 5.2 \text{m} = 34.8 \text{ m}^2\); or redo the measurements with a better precision.
collecting time which would be inferior to the interval between two relevant reconfigurations - the term “relevant” depending one more time on what the surveyor is actually looking for. The survey time being less than a month for the three settlements, the attempt could be considered as successful; but such a short time for such large settlements, even for a ten people team, brings back the question of the credibility of the precision level displayed in the results.

2-90: Position and categorial frame of the authors: 
The comparison between the locality segment of the Klong Toey study and the drawings of Indore settlement’s external spaces shows to what extent the former has been simplified. The difference between the two studies could be attributed to two points: the difference between urban planners’ and architects’ visions of the world, and the ten years interval between the two works. Another point could come from the difference in the background of the two teams. In both cases, surveyors from the concerned country have been involved; it would be worth investigating if their difference in the sensibility can be attributed to their respective educational background.

2-91: The influence of the time interval between the two studies should also be submitted to further exploration. A possible way for that could follow the methodology of the “history of ideas” as defined by Foucault (see par. 2-8): what is the general opinion, as transmitted by mass-media and cultural diffusion processes, about a field like squatter settlements? How does this opinion evolve in time, and what makes it evolve? What makes people now look at slums with more consideration, such that they suddenly - on a historical scale - begin to find qualities in them? Colette Péttonnet’s lectures, in the early seventies (Péttonnet 1983, p.10), were comparing government housing and

Picture 2-57: Large tree place.
European slums. The comparison was to the disadvantage of the former (see chapter IV, section 4); the reception of the lectures by general audiences was not favorable. The difference between the Klong Toey study and this one could be related to such a change in the general idea of squatter settlement in the academic world.

2-92: As mentioned in par. 2-88, the architectural background of the architects can be read through the way the settlement is surveyed. The vision which is offered here is motionless, both for the squatters and for the settlement: people are measured as if they were statues representing different kinds of activities. The quick rate of change of the spatial environment is not mentioned, and does not appear through the precision of the draftings; the data presented stabilizes the general picture to a degree which is not substantiated by the evolution rate. Plans, sections, elevations, perspectives: the redrawing of the original sketches makes use of specifically architectural modes of representation.

2-93: A last point concerns the lack of any interpretative attempt in the generation of the spatial form. To "know how the poor are living" requires a knowledge of the connections between the spatial and the social structures of the place, as well as an indication of its chronological evolution: how was the settlement born? How did the houses accrete to each other? The social concern here is limited to a few sentences directly connected to the next picture. Payne's and Drummond's studies give a more complete account of these elements, without sacrificing the documentary aspect. The study here could be described as iconographic as opposed to iconologic: a study which does not go beyond the level of the observed image.

2-94: Problems with such methods arise when it
comes to selecting, among all the existing features of a settlement, the elements to be surveyed: the image provided by Rybczynski et al.'s survey is an indiscriminate collection of data about each and every element they can find, most of the connections between them remaining to be explained. The final status of the work is then ambiguous. With a more stable physical environment, people wishing to intervene could reuse the data some time later, and link them to a further historico-anthropological investigation. Were such an investigation to begin now, the whole spatial study would have to be redone: as in most of Indian settlements, this one would probably today be hard to recognize from the survey, even for the surveyors. The latter seem actually to be the main beneficiaries of the work: by doing it, they certainly came to have an intuitive notion of a settlement which has a high degree of correspondence with what could be observed at that time. The main value of this kind of study thus resides in the doing: as a research paper meant for the researchers themselves, as what they can learn from it, it has an important value. As a means to communicate “the way the poor actually live”, information about the life of the poor and of its relation with the production of the elements surveyed is deeply lacking.
7 - Dominique Lapierre in Calcutta


2-96: Structure: The book consists of a literary description of a squatter settlement called “Anand Nagar” (The City of Joy) in Calcutta. The settlement is described through a series of romanticized personal stories which intertwine and sometimes converge. At first glance, the description seems to be organized around the different characters; but it actually structures the whole action through a series of short chapters, not necessarily related to one another. These successive glimpses of the settlement, of its surroundings, and of the life of the squatters manage at the end to give a rather comprehensive image of Anand Nagar and of the relations it experiences with its inhabitants.

2-97: Status: Literary work, meant to carry a Catholic-oriented message to the occidental world. Also embedded with a social mission: half of the royalties are send to Calcutta’s urban poor.

2-98: Status of the description in the book: It would not be an exaggeration to say that the whole book is more the story of Anand Nagar than of any of the protagonists. This story which includes the relations with the urban context, the formation of the settlement, the way people manage to live and organize themselves, the different collective rituals, the range of problems encountered in the daily life as well as the ways the squatters manage to deal with them. In the romanticization of the whole story, the account given would seem at first glance to be mixed with fiction elements. Such a view of a settlement is likely to present a view which is not only biased, but also erroneous. This will be discussed below.

2-99: Representation/reduction: The settlement is described as the place where personal stories meet and interfere: no physical account of any place is given without a particular kind of action, which usually illustrates the purpose for which the place is meant. Dwelling, working, eating, gathering, celebrating, are all related to locations in the settlement. Relations with the cities are also accounted for, in terms of what the city brings to the squatters (politically, financially, in terms of working relationships), and of the role the squatters play in the life of the city. A particularly valuable section is the one concerned with the origins of the squatters and of their arrival into the city: it the value of the slum for the squatters can be fully appreciated: through it.

2-100: The romanticization of the action leads to a concentration of facts which, in a single book, gives a pretty bleak account of the life of the community. Lapierre spent three months in the settlement, which, along with Lisa Peattie’s (but far behind Edward Popko’s), constitutes one of the longest data collection periods for the accounts included in this chapter. An impressive collection of information and data (sometimes numerical) demonstrates the will to connect the romanticized representation to the reality of the settlement. According to Indian informers, some parts of the work are probably based on stories which did not
happen in that very settlement, but which have been gathered through various information sources: none of the events directly concerning the squatters (that is, located out of the main protagonist’s actions) has been described as wrong or even unlikely. This set of information could have lead to a valuable ethnological work, has it been collected by a social scientist.

2-101: It can be argued that this bias does not necessary blur the view of the settlement more than, for instance, Caminos’ methodology; actually, the image given by Lapierre through his particular selection of facts is certainly less disconnected from the reality of the settlement than the latter. Unfortunately, the commercial purpose of the book leads to an enhancing of a specific aspect, which faces us with a moral issue: in order to show the human value of the squatters, and the recognition they deserve from the wealthy people constituting the audience for which the book is meant, the author indulges himself in series of stories where ugliness and horror competes with squalor and catastrophes. These stories certainly have a degree of correctness. It is not so much their nature which is dubious as their concentration: to gather them in a single book is like telling a San Francisco story through earthquakes, blazes and criminal events. True, this deadly background has a purpose: to demonstrate, in a very Catholic-oriented spirit, that human qualities blossom among the poorest of the poor and in what most occidental people consider as the worst of the possible worlds. The book does not differ a lot from this general view. The reason for this is obvious: horror sells. Being a best-seller writer, Lapierre knows the tricks of the trade; they do not include a speech about the
qualities of the squatters' physical environment.

2-102: Author's position and categorial frame: Not only is Lapierre a best-seller writer, he has also been writing for ten years in a French magazine named Paris-Match, whose moral stand is similar to Lapierre's. In both of them, the market aspect is dissimulated under an ethical cover: accuracy of the information, right of people to information, and good intentions.

2-103: Lapierre is now involved in humanitarian movements in Calcutta. The last chapter of the book is, surprisingly enough, a door open to hope, and an apology of the power of people to organize themselves. One sentence is worth quoting: "An exploiter is better than Santa Claus. With Santa Claus, all you can do is to accept. With an exploiter, you have the possibility to protest". But even so, the book shows that the shock he had, the first time he went to a Calcutta slum, was never completely forgotten during and after the study. The slum is mainly seen through the occidental eyes of a rather wealthy man. A temporary stay in these areas for the purpose of writing a book which will, according to the author's reputation, bring him a lot of money, is nothing comparable with living there without any hope of ever getting out. Once all these elements are taken in account, the information provided about the relation between the squatters and their village can be considered as one of the most holistic view of these seven accounts. A certain amount of quantitative information is provided. His-

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THE CITY OF JOY

The surgeon called for the operation was a man in his fifties with a receding hairline and large hairy ears. He asked Selima to lie down on the table and examined her attentively. Behind him, the trafficker was growing impatient. The Aeroflot plane was due to take off in four hours. He would only just have time to take the jar to Dum Dum Airport. He had alerted his contact in New York. The transaction would earn him about a thousand U.S. dollars net.

"What are you waiting for, Doctor?"

The surgeon took out his instrument case, slipped on a gown, asked for some soap and a basin to wash his hands, then steeped a large piece of cotton in ether and placed it over Selima's nose and mouth. He toyed nervously with his mustache while the young woman lost consciousness, then took up his lancet. Twenty minutes later, mopping up with gauze compresses the blood flowing from the uterus, he placed the fetus with the placenta in the hands of the trafficker. The child would have been a boy.

It was after he had cut the umbilical cord that disaster struck. A reddish bubbling issued from Selima's womb, followed by black dots, and then a veritable torrent of blood spurted forth in a single gush. In a matter of seconds, the floor of the room was covered in it. The surgeon tried to compress the lower abdomen with a very tight bandage, but the red tide continued to escape. He undid the dressings and tried to feel out the position of the abdominal organs and tried to feel out the position of the abdominal organs and tried to feel out the position of the abdominal organs and tried to feel out the position of the abdominal organs and tried to feel out the position of the abdominal organs

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...and her pulse, but
torical elements are precisely located in time. The only problem is a moral one: are we allowed, for the purpose of helping people, to exploit their misery and their intimate life in this way?

2-104: That question is slippery. An answer would be that Lapierre is perfectly conscious of this problem, and that he uses for his own sake the quotation above: "an exploiter is better than a Santa Claus". Selling their bones, their blood and their unborn children in order to survive, relying on a powerful local mafia as the only coercive organism for solving disputes, the squatters are inserted into a set of ethical values which is alien to the average western observer. The relation between Lapierre and his work might just be another way to show us the necessity to relativize our whole concept of morality when dealing with a situation of this kind; if it is actually the case, the representation of the slum influences up to the process of production of the book.

*In winter*, the same phenomenon occurred each evening. No sooner had the women set fire to the cow dung cakes to cook their dinner than the reddening disk of the sun disappeared behind a grayish filter. Held there by the layer of fresh air above, the wreaths of dense smoke hovered stagnantly over the rooftops, imprisoning the slum beneath a poisonous screen. Its inhabitants coughed, spat, and choked. On some evenings, visibility was reduced to less than six feet. The smell of sulphur overrode all others. People's skin and eyes burned. Yet no one in the City of Joy would have dared to curse the wintertime, that all too short a respite before the summer's onslaught.

Summer, that year, struck like a bolt of lightning. In a matter of seconds, night fell in the very middle of day. Crazed with panic, the slum people rushed out of their compounds and into the alleys. From the terrace where he was sorting medicines, Stephan Kovalski saw an atmospheric disturbance of a kind that was totally unknown to him. At first sight it could have passed for the Aurora Borealis. What it in fact consisted of was suspended particles of yellow sand be
Conclusion

2-105: The seven surveys present seven different pictures of the squatter settlement. When I began this research, I had the assumption that a distinction would appear between the accounts aiming at a future intervention ("operational" purpose), and surveys done for the purpose of understanding ("cognitive" purpose). Drummond, Popko and Lapierre can be classified in the first category; (Lapiere is located here because even if the survey was aiming to the production of a book, the subject of the book required a deep understanding of the processes going on in the settlement). Caminos' disciples are in the second. Payne, Rybczynski and Peattie are not so easily classifiable. The first two have an indirect operational objective, with a strong theoretical support in Payne's case. Rybczynski's work is meant to set the ground for future researchers, assuming that they will use his data for the development of new intervention methods. Peattie's text is a critical work: its target is not an element of the physical environment, but some of the conceptual tools we use to categorize it. Its long-term objective however remains the design of intervention policies, optimized by a redefinition of concepts used in the field. So the need for a third category appears, which leads to the following classification:

a)-Cognitive: Drummond, Popko, Lapierre;
b)-Indirectly operational: Payne, Peattie, Rybczynski;
c)-Directly operational: Caminos.

2-106: Then, the same accounts can be classified another way, establishing the distinction between the two following categories:

a) - Surveys focusing on selected parameters - "Parametrized" surveys: Caminos, Peattie, Rybczynski, Payne;
b) - Surveys encompassing as much elements as possible, in all possible aspects and interrelations - "Holistic" surveys: Drummond, Lapierre, Popko.

2-107: For the seven selected surveys, a correlation appears between the categories of "holistic" and "cognitive". The following fact also appears from this limited sample: a survey oriented towards a precise result is based on an initial parametrization. The parameters can take any shape: Rybczynski, for instance, even if he tries to describe every aspects of the settlement, fail to go deeper than the precise surface of things: the settlement is reduced to a physical object. Another example is provided by surveys where the settlement is parametrized in terms of the problems detected on the environment, with the explicit intention to upgrade: these problems become the only data taken in account, without concern for their possible influence on the qualities which a deeper survey would have revealed.

2-108: The "parametrized" and the "holistic" surveys can be directly related to the dualization established by Deleuze and Guattari in any process of concept exploration, distinguishing between "root" and "rhizome" analytical model (see Introduction, par. I-1 and seq.). Here, the "root" model separates the concept into distinct categories, each of them being explored according to a particular field of knowledge: a squatter settlement will be analyzed in terms of economics,
politics, sociology, history, demography... It corresponds to a methodological model: an illustration of Descartes' method (Descartes 1966). Sections through the process reveal patterns which remains basically identical (see diagram I-1); they are independent from the location of the section. The relations between the elements are connections re-established after the separation, and they are secondary elements in the diagram. As opposed to this, the "rhizome" model does not disconnect any field according to categories defined a priori, and explores territories constituted by interrelations between elements which cannot be defined independently from each other. Sections through the process reveals variable patterns; if any purpose has to be defined, it will be based on a particular section, made at a particular moment of the exploration.

2-109: These "territories" can be for instance illustrated by some parts of Drummond's analysis. Construction techniques, evolution of the squatter's situation, spatial organization of the house, social networks, layout and use of space, political concerns, history of the settlement, are hardly mentioned separately: the world of the favela is not considered as made from disconnected elements, relevant only in terms of a demonstration to be done. Unlike "parameters", the elements used for that study are variable. Some are maintained all along the survey, some are only present for a short sequence.

2-110: Is it possible to imagine an operational survey which would not require a high degree of parametrization? Geoffrey Payne is not so far of doing it. The way he relates the parameters together leads to a "soft parametrization". I would argue that the global view of the squatting phenomenon that he develops in the first chapters of his book is responsible for it; but still, his survey does not have the same scope than Drummond's. Many questions are open by these consideration. The evaluation we make of a squatter settlement is based on what we know about it. What we know about it is what we have learned about it. What we have learned is made of what has been taught to us, and of what we discovered by ourselves. Using the knowledge generated by the occidental ideology leads to an evaluation in occidental terms. The consequences of this will be described in chapter IV and V.
Chapter III

The City Of Wealth: Exerpts Of A Case Study
Introduction

3-1: The surveys of the second chapter either reduced the settlement to a set of parameters, or took a wholistic approach. This case study takes an approach by a quotation from Gaston Bachelard:

"I do welcome the poetic image as a small experimental madness (...), without which one cannot penetrate the realm of imagination. And how to welcome an exaggerated image, if not by exaggerating it further on, by personalizing the exaggeration? The phenomenological gain appears right away: by taking the exaggeration further on, we have some possibilities to escape the habits of reduction. (...) Let's thus transform our surprise into admiration. Let's begin by admiring. We will see later if we must organize our deception through critique and reduction."

It is an approach which, instead of reducing reality for purposes of scientific studies, expands it first through subjective images. It allows us to widen our vision of the world, and to establish links which would seem unlikely at a first glance.

3-2: The survey is divided into sections, each of them referring to a particular aspect of the settlement. As a slide show, they are meant to reconstitute it through views taken from different angles, and by comments provoked by different events. Visual representations of the whole settlement are presented on Pict. 3-10 and Pict. 3-11.

* The pictures and information in this chapter come from the fieldwork "A Comparative Study Of Two Squatter Settlements With A Large Islamic Component - Daulat Nagar In Bombay And Kibera In Nairobi" (Nicolas Reeves), presented to the Aga Khan Program For Islamic Cultures At MIT during the spring of 1988.
The context of Bombay

3-3: The peninsula of Bombay is plagued by an immense land shortage, which results in a permanent state of crisis. The population, estimated at 8.2 million in 1981, has already past 10 millions and is heading towards 11.1 millions in 1991. The geography of the city is partly responsible for the critical housing situation: settled on a long and narrow peninsula, the city imposes commuting times which are frequently over two hours a day. Because of the price of land, the commuting distances and the reputation of the city, squatter settlements are everywhere. They grow on every piece of land left unoccupied for a while. They grow along railroad tracks, around each train station, over the most swampy areas. They grow along water pipelines in which they dig holes. Bombay’s pipelines bring water from natural reservoirs located more than a hundred kilometers from the city; all along their course, in the city and in the countryside, squatters install their shacks and their shelters, opening new springs in these metallic cylindrical cliffs, antique process of settling for an industrial river. Seen from inside, the most prosperous city of India is for a good half an ocean of squalor. “A city in Decay” for the media; “The biggest slum in Asia”, say the Bombayites, with an almost glimpse of pride in their eyes, when they talk about Dharavi, just by the suburb of Bandra. There, according to official estimations, more than 500 000 inhabitants live on its in 6.5 square kilometers: more than 770 inhabitants per hectare, or 13 square meters/inhabitant, including roads, services, latrines... Dharavi is still growing, as all the slum population. 41.3% of the population is expected to live in squatter settlements in 1990: more than four million squatters. Bombay’s population increase is more than 800 inhabitants a day, without even considering its internal growth: rural migration brings in one Venice population a year*. (India Today, January 1988). The land shortage does not only affect the poorest: white collar workers, engineers, airline stewards live in Dharavi along with workers and rickshaw drivers (India Today, June 1987). Unable to provide services, the city regularly tries to resettle the squatters. The results are generally poor:

“Other schemes to rehabilitate the slum dwellers on the outskirts of the city by giving them land and buildings have also come to grief. The Gujarat Slum Clearance Board provided houses for about 5000 slum dwellers on the banks of the Sabarmati river in the Sarkhej area. When the the slum dwellers found that they had to travel a long distance to reach the city, they quietly sold off their new houses and moved back to the river side.” (India Today, January 1988).

Notice among other things that the housing provided by this project is not even sufficient to cover the population increase generated by one week of migration.

3-4: Despite (or probably because) of their presence in every area, squatters are still seen as a threat for the city’s survival. “A city of decay” (Pict. 3-2); “Instead of becoming “engines for development”, cities are

* Impressive enough, sure... but nothing when compared to Delhi, whose increase is 2000 inhabitants per day: 1.4 inhabitants each minute.
heading for a total breakdown” (India Today, January 1988): along with the figures presented in the article, along with a chart showing the increase of crime in the city, this kind of paper will hardly do anything for improving the image of the slum in the public opinion. Two details are worth mentioning: though the figures themselves are credible and come from official sources, the criminality increase chart is not referred to in the text: “bring your own comments”. Then, an easy calculation shows that for the city of Bombay, the increase in crime is inferior to the increase in the population in general, and inferior by one fifth to the increase in the slum population: the former amounts to 182% between 1961 and 1981, the latter to 283%. Considering only the increase in slum population, calculations from the figures provided in the chart give a 4.3% annual increase in the slums and a 3.5% increase in crime for the same period. The same figures and the same diagrams can be used to convey very different pictures. Though India Today is generally a well regarded magazine, which is usually one of the first to raise critics towards government policies, this way to bias apparently neutral figures and charts is typical of mass-media communication.

It has been said by different authors that Bombay was actually “two cities in one”. This dichotomy, present even in recent scholarly works, is the proof that the concept of dualism is still not dead. As shown by Payne, Drummond, Peattie and Lapierre, the “two cities” are two geographically delimited elements of a same whole. This will be discussed in Chapter IV. Developing cities incorporate squatter settlements as an integral element, necessary to their own functioning. In Bombay, apart for huge settlements like Dharavi, there is a constellation of “squatter pockets” in all kinds of areas. They are the visible manifestation of the impossibility for squatters to live without the city - and
vice-versa. Picture 3-3 shows a settlement located in downtown Bombay, in the most expensive land of India (value at the beginning of the eighties: 16000 rupees/m², which is about 1250 US$ at this time). The squatters are actually the construction workers hired to build the two huge skyscrapers on both sides of the photograph. After the completion of the work, they simply refused to leave. They took advantage of the 1977 Slum Act which forces the authorities to provide them with another piece of land before expelling them from there. This non-official and totally illegal way to settle down has become so common that any urban proposal in which does not make provision for its occurrence is due to clash with it at some point.

Picture 3-4: Location of the Bombay peninsula. Located on the west coast of India, Bombay is the first major city in the country to be hit by the monsoons.

Picture 3-5: Location of Daulat Nagar in Bombay.
2 - The City of Wealth

3-6: The squatter settlement of Daulat Nagar ("The City of Wealth") is one of these squatter pockets. According to the will and the way of doing of its inhabitants, it will be sometimes referred to as "the Village". It has been selected for four reasons: its type, characteristic of the city of Bombay; its size, small enough for a two weeks study by a single surveyor; its large muslim component, which allowed the comparison with the muslim Kenyan settlement in the study mentioned in footnote in the introduction page of this chapter, and its location, which had to be accessible by public transportation.

3-7: The whole neighborhood where the Village is located is also called Daulat Nagar. Surprisingly enough, the name of the former comes from the latter: the settlement gave its name to a part of the city. To access it, the indication to give to rickshaw drivers is "the true Daulat Nagar". The neighborhood itself is rather wealthy, despite of the dreadful aspect of some of its apartment blocks. Many squatter settlements can be found in it. Some of them are rather old and consolidated. They look like traditional parts of the city - except, as in most of the cases, for the level of services. Daulat Nagar is just by a river, which floods regularly during moonsoon time, from early June to September. The first occupants of the land arrived twenty years ago, coming from the provinces surrounding the city of Bombay. However, the settlement has still no existence for official planners: there is no trace of either on official maps, nor on plans showing the projected urbanization scheme for the area (Pict. 3-6).

*Picture 3-6: Map of the urbanization proposal.*
3-8: In the summer of 1987, about 150 families were living in the Village - about 550 people. The kind of job they were doing was typical of these environments: rickshaw drivers, housecleaners, clothes repair, wood workers, petty sellers, construction workers. Even in such a small settlements, small commerces were found: one was selling food and drinks, the other small house hardware.

**Entering the Village**

3-9: I spent a few days trying to find a way to be introduced to a squatter community. I finally had the chance to be introduced to the Family Planning Association of India, which helped me to locate the settlement. One of the members of the association went to the settlement two days before me, in order to be sure that my presence there would be understood and accepted by the whole community. He acted as an interpreter, and introduced me to a lady named lady Khan. As he told me, she was considered as a leader by the community because she was involved in processes of negotiation with the municipality. Lady Khan told me she spoke five languages including English and French, but the presence of the interpreter was absolutely necessary for me to communicate with her.

3-10: After I was introduced, I came alone with just a pencil and a sketch book. I walked around the area followed by what seemed to be thousands of children, who were quite helpful: they all wanted to show me their houses, thus introducing me to their parents. Each time I could enter a house, which occurred frequently, I was offered a terribly sweet cup of tea and welcomed with wonderful smiles. I asked the authorization to make sketches of the houses, and mentioned that I would like to come back with a camera some day later. This was cordially granted to me. These precautions now appear to me as mere politeness. From the moment I was accepted by the community, I was able to go everywhere - even in these places which we call “private” in occidental terms - and to collect all the information I wished.

3-11: Six months after my own field research, one of my fellow students* went to Bombay, and was kind enough to go back to Daulat Nagar for one day. Being able to communicate directly with the squatters, she brought back supplementary information and pictures which were extremely helpful in helping me understand the patterns of evolution of the Village - what social scientists would describe as “getting a diachronic view of it”.

**General structure**

3-12: The entrance of the settlement is located at the end of a dead-end street, which would otherwise open right into the river. The land on which it is built is marshy. It somewhat resembles a fishermen’s Village. This is enhanced both by the presence of the water and by the typology of some of the huts. Some of the recent tents were actually quite similar to fishermen’s hut from the west coast of India, south of Bombay. I could detect three different areas at a first glance, the limits between them being rather blurred (Pict. 3-7). The first part is a very dense area, opening on the street; the houses there open on narrow alleys. They are partly built with corrugated metal, which is a sign of wealth in a squatter settlement. I could even find a concrete house, which intrigued me a great deal, and a few tile roofs. This looked like the most established part of the Village. Almost all the commerces, the institutions (mosque, temple), the equipments (latrines, fountain)

*Ahmereen Reza, MIT - S.M. Arch. S. 89
and the small workshops are located in it.

3-13: The second part is composed of a dozen of houses surrounding an open yard. Compared to the density of the other areas, this was rather surprising. I thought that it has not been filled because of floods: it is slightly lower than the rest of the Village. As we will see later, this proved wrong, and the only explanation that I can see know relates to patterns of ownership. The houses of the third area are mainly invasion shacks, aligned along the shore; this is the poorest looking section.

**Emergence**

3-14: The area surrounding Daulat Nagar is built on a "reclamation": a piece of land which has been claimed from the sea. The villagers have their own notion of this process. When I first saw the house represented in Pict. 3-8, the monsoon was just beginning. I could not help thinking that poverty does not necessarily means good mental wealth. Other squatters were building at the same moment in a soundest - and drier - part of the Village. Why would this man build at this moment, in this location where the water level would rise almost two feet in the next weeks? Notions of territoriality were probably involved. A better expla-
nation came with the pictures taken in January (Pict. 3-10). In them, we can see a process of informal land claiming going on. Putting in the water all kinds of branches and palms, all kinds of apparently unusable debris*, filling them with soil, and with human and goat excrement, the squatters are creating for themselves, in a collective process, the space the city is unable to provide for them. The public latrine provided by the city, which is by far the soundest and most expensive building in the settlement (Pict. 3-42), is a lavish expense for people which have a better and unexpected (for the city) use for their feces. Sure, the settlement is a smelling place. It is rather unhealthy, especially in monsoon time. To think of it twice however could even bring speculators on their side: according to the stratospheric prices of land in Bombay, the land thus created is an important investment. Literally speaking, these squatters are turning shit into gold.

3-15: After the claiming, rows of posts are planted in the new ground, announcing a future series of houses which will surround the existing Village (Pict. 3-11). Subsequent additions will most likely be done the same way, recording on a land created from water the pattern of growth of the urban spaces. The house on

*Something really unusable for a squatter is actually hard to imagine.
Pict. 3-8 is actually the vanguard of the settlement, built as a statement for the intentions of the Village to conquer the marshy river. This is not dissimilar to what Popko calls "beach heads" in official areas, where houses in a very precarious situation, meant to test the ground for the collectivity, announce the future coming of the settlement. The squatter living there is actually securing his position for years to come.

3-16: A time view of the Village reveals a fascinating process. Because of its internal organizations, this settlement is likely to become an official neighborhood in the next years. From a marshy river to a part of one of the biggest cities in the world, this process of evolution is the birth of a completely new place. These palm leaves, these few posts have the force of a beginning, the richness of a becoming. "Squatter design cities": nowhere can this be more true than in this generation of a Village from one of the most possible unfavorable land. This humble origin will be recorded in the deepest layers of the memory of the future city. As an archeological inscription progressively buried under dusts and stones, the first layout will slowly be covered by the evolution of the Village. Its irregular curves, its approximately concentric patterns, its almost parallel alignments will however remain visible for a long time, transient images of a glittering river briefly awaken from the very roots of a collective memory.
Creation on the fringes

3-17: The houses along the river are not made of materials such as corrugated metal or flattened oil barrels. They are simple wood structures, assembled with ropes, and covered with vegetal and plastic fabric - almost tents. Considering the land claiming process going on, they are almost certainly inhabited by the more recent migrants. From the observations made in this settlement, from the physical aspect of the consolidated settlements nearby, the scenario of evolution can be reconstituted. Areas I and II in Pict. 3-7 correspond to two different steps on the evolution towards a consolidated neighborhood. These fragile huts at the fringe of the settlement (Pict 3-13 and 3-14) right at the limit between water and ground, are the step immediately following the stabilization of the newly reclaimed land. Afterwards, houses are built in more and more intricate ways (see the section on "impossible houses", par. 3-24 & seq.), with sounder materials - metal walls on a concrete base, for instance. Finally, masonry houses will be built (Pict. 3-12).

3-18: Squatters usually find a way to optimize the invasion process, and use the maximum of land surface with a given number of houses (Payne 1977, p.156). This can be observed in the second area of the Village (See aerial view, Pict. 3-9). The houses have been built all around the space, allowing the squatters to make sure that no other group of migrants will occupy a portion of it without their agreement. Along the river like and the walls, the settlement is growing at the edges. Like in a city, the most active process of creation of urban fabric occurs at the fringes. As we
will see in the next chapter, the structure of the urban
space defines possible locations for squatter settle-
ments; the latter however has the potential to create
internally an independent space organization. In the
patches of land leftover between the striae of the
official city, a smooth space is created from the edges
towards the inside - about the way a living fabric recreates its missing parts.

**Housing a collective being**

3-19: In the western world, when talking about hous-
ing, the limits between public and private coincide to
a large extent with the different steps on the scale
public-private. This is not the case here. Actually, the

"public-private" dichotomy appears as unappropriate
for the description of the settlement. Payne, in the
Rouse Avenue settlement, describe the alleys as
extensions of the house. He also uses the "symbiotic
relation" between inside and outside, thus considering
them as two separate entities. Even this description
could be improved: the following observations will
allow us to reconsider it.

**3-20:** The sketches and photographs below (Pict. 3-15
to 3-21) illustrate the fact that our conception of public
and private is inadequate for analyzing the space of
Daulat Nagar. The entrance of the settlement (Pict.3-
15 and 3-16) indicates a strong delimitation from the

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**Picture 3-15:** Entrance of the Village.

**Picture 3-16:** Entrance of the Village - plan.

**Picture 3-17:** Microplace - Plan.

**Picture 3-18:** Microplace - Section showing removable roof.
rest of the neighborhood. But it is not a physical edge: there is no material barrier between the public municipal street and the common informal spaces. It is marked by a change of scale, and by a shift in the texture of the built form. The alleys in the Village are sometimes just wide enough for a pedestrian to walk in, whilst the streets of the city are wide enough for a planning meant for year 2001. Then the access is also controlled by the villagers. One of the preferential gathering places is just at the entrance. There is hardly a way for an outsider to enter the settlement without being noticed. The same can be said about the alleys inside the village: people are always sitting at their door. The size of the community makes everyone visually known from the others.

3-21: Once admitted in the settlement, I was able to go everywhere in it. The main limit is geographical: it separates the official and the illegal parts of the city. In the Village, the concepts of “public” and “private” could be advantageously replaced by a continuous scale of “intimacy”: even the limits between the houses and the alleys seem to vanish. Inside and outside seems to merge in a continuous space with smooth variations in the level of intimacy, which are not necessarily related to the presence of a roof between the walls. Lévi-Strauss (1985) and Bachelard (1957) mentions to which extent our thinking, from mythologies to science and philosophy, is rooted in this dichotomy:

"Inside and outside form a dialectic of quartering and the obvious geometry of this dialectic blinds us as soon as we use it in metaphorical realms. It has the sheering clarity of the dialectic of yes and no which decides of everything. From it, we create unawares a base of images which commands all the thought of the positive and of the negative. Logician trace circles which
overlap or exclude each others, and all their rules are made clear. The philosopher thinks the being and the non-being with the inside and the outside. The deepest metaphysics is thus rooted in an implicit geometry, in a geometry which "want it or not- spatializes the thought." (Bachelard 1957, p.190).

3-21: The first photograph (Pict. 3-19) represents a bed frame which is used as a coach. It is located at the angle of a turning alley. It was used by many people which would sit there, and undertake animated discussions with other villagers sitting at the door of their houses. This bed was more a couch in a living room than a bench in a public space.

3-22: The second photograph shows a villager storing material in the alley. Despite of the value for the squatters of materials and equipments such as bicycles, wood boards, or oil barrels, no theft occurs among the squatters. A high degree of respect for others’ property transforms the lanes in a very safe storage place, which is collectively used. Another settlement in Bombay, documented by myself in June 87 and mainly by A. Reza in January 88 gives further substantiation of that point. It is made of huge concrete pipes stored on a piece of land by the city, in which the squatters dwells (Pict. 3-22). All the squatters there collect trashes from the neighboring areas, sort them and sell whatever can be reused for any purpose. The settlement thus looks like a big dump. However, every garbage inside belongs to a given family. One more time, there is no stolen material - even if it would be quite uneasy to distinguish between the different peoples’ property in such a case. The common spaces of the settlement have a high level of collective control, which is one of its most important distinctions from the public space of the city.
3-23: Picture 3-21 shows a lady doing sewing work in an exterior space close to her house. This “microplace” is a very small space without roof, on which two to four houses open. It represents a higher level of intimacy than the alleys, since it is used mainly by the inhabitants of the surrounding houses. Shelves on the wall, chairs and armchairs around it awake one more time the image of a domestic room without ceiling. This image is made stronger at the time of the monsoon, when the inhabitants stretch plastic webs between the walls of the houses, over the microplaces and over the alleys (Pict. 3-18). Whole parts of the settlement looks then like a hybrid between a nomadic tent and a house with rusty metal walls.

3-24: My final impression was actually this one. To convey the image which I got from the settlement, the concept of “house” will be far more precise than the concept of “village”. A big, collective house where the alleys are corridors and the houses are rooms, where the presence of a roof is not enough to say if we are inside or outside, where any modification of the spatial form concerns much more than one people and ask for group decisions. Certainly, the image is still an approximation; but using it instead of the idea of settlement brings us much closer from its specificity: fitting this image to the settlement’s identity will require far less adjustment than stretching to the extreme the image of an urban neighborhood. With this image in mind, the very idea of widening the lanes for access to services for instance takes an absurd tone: who will accept widening corridors in his own house to install sewer lines or to allow access to fire trucks? Technologies exist at all scales and for all purposes. The scale of the one to be used in this kind of environment should be closer to a domestic scale than to an urban one. Only in this way could it be fit to the general texture.

Living in impossible houses

3-24: Poverty has its own hierarchy. Houses in the settlement differ a great deal. The important variations in the ways of dwelling shows that the desperate monotony of low-income governmental housing is not only due to financial issues.

3-25: Used as we are, in the occidental world, to a certain image of the house, there are many kinds of dwellings which we would never consider as such. So many attempts has been made in all fields of knowledge to determine what a house is, what it means, what are its roles that it is not possible to enter any off them here (see for instance Bachelard 1957, Raglan 1964, Rappoport 1969, Deffontaines 1972, Roux 1976, Turner 1976, Marc 1980, Norberg-Schulz 1985, Heidegger 1958, ...). I will simply present pictures of a few houses of the settlement by pictures, to illustrate how some ways of dwelling can be remote from our conception of it. An example of this is provided by the house on the water in Pict. 3-8., which shows the necessity of considering all the information relevant to a situation before making any judgement on it.

3-26: The three first examples are not so far from our idea of a house. The first is a big collective dwelling, the two next are single family houses. The four houses presented next would probably be considered as uninhabitable by most Westerner. They nonetheless show the ingeniousness with which the villagers manage to organize their living space.

3-27: La grande maison (Fig. 3-23 and 3-24). Fifteen people live in this house. It is the biggest of the Village. I suspect -but I could not have any accurate information on this point that it was there when the first squatters came, and that the Village then grew around it. Such lavish expenses of material -corrugated metal
Picture 3-23: la grande maison

Picture 3-24: la grande maison (axonometrics)
walls, wood structure, tiled roof- are unlikely in the harsh conditions of the place. It incorporates a ham-mam - a separate bathroom with a concrete water tank.

3-28: Farida's (Pict. 3-25). During the beginning of the moonsoon, walking of the Village became quite difficult. At some point, I was invited to share the meal of a family in this house, which is rather big as compared to the others.

3-29: Abdul Hafiz's (Pict. 3-26 to 3-28). Abdul Hafiz speaks English. He was extremely helpful in describing to the villagers what I was doing. He owns at least two other houses in the settlements, which he rents. His goat is, as he says, is "for enjoyment only": the family does not drink its milk, nor does it plan to eat it. Like a cat, she walks on beds and ask for attention. She has a stable for herself - a two meters by two meters wood structure covered with fabric. Two small trees are growing in big flower pots. Abdul Hafiz intends to plant them on both sides of the door to make the access nicer.

3-30: A house like a tunnel (Pict. 3-29). This very long and narrow house is likely built on what was previously an alley between two older houses. It is crossed
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Picture 3-26: Abdul Hafiz's house: aerial view
Picture 3-28: Abdul Hafiz's house

Picture 3-27: Abdul Hafiz's goat has her own stable.

Abdul Hafiz’s: Plan diagram
Approx. scale:

- Bunch of marble pieces
- Window with metal grid
- Open space
- Corrugated metal walls on a concrete base
- Water zone
- Bed
- Straw mat
- Cement floor
- Shelves
- Storage
- Goat's stable
- Fabric on a wooden structure
- Washing space
- Corrugated metal walls on a concrete base
- Water zone
- Bed
- Straw mat
- Cement floor
- Shelves
- Storage
- Goat's stable
- Fabric on a wooden structure
- Washing space
- Corrugated metal walls on a concrete base
- Water zone
- Bed
- Straw mat
- Cement floor
- Shelves
- Storage
- Goat's stable
- Fabric on a wooden structure
- Washing space
by a drain for spoiled water, which is clogged most of the time. This way of blocking a path is common in the settlement. It is at the origin of most of the dead-end alleys. By this process, a high density can be achieved. The house itself has two very narrow façades. A woodworker and his family live in it. Some parts of the roof are made of translucent plastic fabric. The walls are quite irregular. The interior presents the usual distinction between wet and dry zones. The part where the sunlight is more abundant is used as a workshop.

3-31: A house with a small façade (Pict. 3-30). Though the shape and the proportions of this house are quite common in the settlement, its nesting between four other houses makes it quite particular. The "façade" is not wider than the door, but the house is. Completely surrounded at the ground level, it has to get sunlight by windows opening at the top of the walls. Taking advantage of the height of the ceiling, a mezzanine has been built. It is used as a sleeping space.

3-32: A house in a fissure (Pict. 3-31). Inserted in a leftover space between two older houses along an alley, this house is hardly six feet wide. Just like the previous one, it had to go up in order to get natural light, but also to create living space: the first floor is basically used as a mere access to the second, where most of the activities take place.

3-33: A house with no façade (Pict. 3-32). This house
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Picture 3-30: House with a small façade

Picture 3-31: House in a fissure
belongs to Lady Khan. It previously opened on the alley at the bottom of the plan, and a low and narrow corridor between two houses connected it to the other alley. The house was later divided into two sections. Lady Khan’s son occupies the section opening on the alley. She uses the other section, whose only access to the other alley is the corridor. This results in a house which does not have any façade on any street, and which is surrounded by other houses on all sides. The inside is rather dark, but not completely: translucent plastic is used as a roofing material.

3-34: Now, an occidentally trained architect would hardly consider the possibility of housing people in such conditions. However, this model of a house without façade is encountered in traditional urban fabrics in India - it can be found in some parts of Old Delhi -, and by many ways it can be made nice to inhabit. It could be made quite livable by the addition of a second floor; the first floor would thus become an access and a storage place -something not dissimilar to a basement- and the top floor would be the inhabitable zone. As the settlement is now, this floor could have windows on four sides. As a way to achieve high densities, this one would be quite unusual. Using this process for the adjacent houses obviously requires some collective agreement, in order not to block out all the windows of the second floor.

Picture 3-32: A house with no façade
High income urban poor
3-35: Like in most of Bombay’s squatter settlements, Daulat Nagar has a small internal bourgeoisie. During one of my walks in the Village, a lady spoke to me with a very good English. We had a long talk, and she showed me many photographs of her recent trips: Wimbledon, New England, California and Australia. The photographs provided clear evidence that she was not telling stories, and that she was not what is usually called a “urban poor”. She was living in the Village because of tremendous prices of official housing. Abdul Hafiz, whose house is shown in Pict. 3-26, did not have any regular work in June 87, but was going to the city from time to time “for business”. In January 88, he was working as a construction worker. It is common for squatters to change work frequently. He was richer than the other squatters mainly because of the houses he owns and rents in the Village. The lady who went to California is actually renting him one of them. The masonry house shown in Pict. 3-12 belongs to a construction worker. He now works in Abu Dhabi, and make a very good salary. He wants to keep a house in Bombay, and decided to keep this one because it does not cost him anything.

3-36: Like the air steward and the engineer living in Dharavi and interviewed for India Today (June 87), these people are typical of the small growing middle-class which is present in most Bombayite settlements. Their very presence is a statement of the problems towards which the official city is now heading, and of the importance of squatter settlements as a solution to the drastic housing shortage in Bombay. The role they can play in the social acceptance of slums should not be neglected.

Institutions: School, Mosque and Temple
3-37: Abdul Hafiz’s two children goes to school. Their father showed me their class records, which were quite good, and described me in detail what they were doing in class. The school to which they are going is rather far from the settlement. There is another one closer, but the further one is supposed to be better. I learned later on that it was also a Muslim one, which might be the real reason why the children had to travel so far. The importance of education in the Indian context is acknowledged by the villagers.

3-38: Picture3-33 and 3-34 show a space which is used as a classroom for all kinds of teaching - for children and adults-, as a meeting place and as a mosque: an informal multi-purpose room. There is actually a mosque in the adjacent neighborhood, which is preferentially used by the Muslim squatters. This one is used mainly for praying.

3-39: Picture 3-35 and 3-36 represent a curious spiritual space: a Hindu temple maintained by a Christian

Picture 3-33: Informal mosque
priest in the middle of a Muslim settlement. Opening on a microplace, it is surrounded on all sides by houses. At one end was a little courtyard with a beautiful tree growing far beyond the height of the temple. It was certainly one of the most ornamented buildings of the settlement. I have been told however that no one was using it apart from the priest who was actually living in it.
Interiors

3-40: If the space of the settlement seems to be continuously gradated in terms of intimacy, the visual aspect of the inside of some of the houses can evoke, despite its poverty, images which could not be as easily awaken by the outside. An illustration of this is given by the Hindu temple; but this impression is best felt in the space of the houses. The care which is taken to maintain the inside, the richness of some fabrics, the bright and spotless colors of the Indian Muslim clothes, the contrast between the darkness and the glows of the hammered metal jar, can at times allow the eye to forget the surrounding rusty metal walls and the mind to wander among images of Oriental dreams (Pict. 3-37, 3-38 and 3-39).

Making a living in Daulat Nagar

3-41: In most of the cases, living in a squatter settlement, be it a Village, is an indication of the difficulty for the squatters to make a living. This is particularly true in an expensive city like Bombay. Even if some squatters (like the Abu Dhabi worker above - see par. 3-35) are rather well-off, most of them have to develop real survival strategies, many of them influencing the spatial form and the visual aspect of the settlement. In Picture 3-40, two of these strategies are illustrated.
long cart on the left is used for a job which is typical of Bombay. The man who owns it establishes contracts with office employees in the city. Each day before noon time, he rushes to their homes, takes the lunches prepared by some member of their families, and bring them to their office. Looking at such carriers in the streets of Bombay, I could not help thinking that according to the number of lunches they have to deliver, the lunch time of their clients must be spread over a few hours do not eat all at the same time. The second strategy is indicated by the shrub of flowers in the middle, which are grown there, then cut and sold on the market or on the streets.

3-42: This little food shop (Pict.3-41) is one of the two shops located inside the settlement. It opens on the crossroad of three lanes, at a place where they widen to create a small collective place.

3-43: In this small shop (Pict. 3-44) which sells mainly material for repairing clothes and small domestic appliance, this lady also do clothes repairs. The shop is owned by Lady Khan.

3-44: Woodworker (Pict. 3-42). This man lives in one of the “impossible houses” drawn above (see “a house like a tunnel”).
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Picture 3-42: Woodworker

Picture 3-43: A bunch of recuperated pieces of marble.

Pict. 3-44: Inside a small shop. This lady is repairing clothes for the inhabitants of the neighborhood.
3-45: A bunch of marble (Pict. 3-43). This material is owned by a man which works in a marble cutting factory. These leftover pieces of marble are recuperated daily, and then resold.

**The latrines and the water**

3-46: This temple of concrete standing useless among the corrugated metal shacks, designed with a sense of composition and a strong symmetry, is the latrines building (3-45). It is by far the most expensive and the soundest structure of the settlement - a typical case of municipal intervention. Its cynical undertones are enhanced by the comparison with the surrounding buildings. Its concrete walls, its general design, make it totally displaced in the environment. It is not extensively used, mainly because of the process of land claiming described in par. 3-; but problems of maintenance make it anyway highly unwelcoming. People use the spaces around it instead, creating one of the most obnoxious area in the Village.

3-47: The tap at the entrance of the Village (pict.X) is pouring an absurd salted water. It is mainly used for ablutions before entering the mosque. I could find five wells in the settlement (Pict. 3-46), which were all providing a salty and rather muddy water which was used for domestic purposes. Clothes were washed either directly in the river, or in little collective washtub where the water has to be brought with buckets.

3-48: Drinkable water seemed as though it was an important issue. Squatters had to fetch it to another Village, one half-kilometer away, and it was available only from nine to eleven in the morning. During monsoon time, people were installing buckets along the alley to collect the torrential waters pouring from the sky, thus avoiding this daily morning walk. But at the same time, these cascades falling from masses of dark and heavy clouds, the overwhelming presence of the river which floods at least a half of the Village, the alleys transformed in slowly moving streams of sludge, the mud which invades every single space, climbing along the walls, covering every floor, gives
the impression of a place on which the deities of water and soil had placed a joint curse. Coming back in the dry season would present a drastically different picture: the difficulty to get drinkable water, combined with the heat which can go up to 40°C, transform the Village in a dark corrugated metal oven in the middle of a desert, where the water has to be fetched at an oasis nearby. The necessity to do surveys which are spread in time cannot be best illustrated.

Picture 3-47: Buckets under the roofs collect monsoon water.
Conclusion

3-49: Despite of its small size, Daulat Nagar presents all the characteristics of any urban squatter settlement. School, mosque, temple, stores, jobs, collective (not to say public) works: like a miniature of a city or an embryonic neighborhood, it begins to develop what could be called an urbanism on its own. This shows that in a city like Bombay, size is irrelevant: squatters experience the same problems, and small pockets like this one are actually part of general "squatter system" of the city. The study of this one can then provides many clues for the study of the general "squatter pocket" typology.

3-50: However, the variety and the visual richness of the environment should limit any further generalization, especially in case of a survey made with the intention of upgrading. Walking across different "squatter pockets" shows that under this generic typology, each settlement presents a high degree of specificity - I would even use the word "personality" in the case of Daulat Nagar. The future evolution, if not interrupted, will lead to a "village pocket" whose fineness of grain and relation to collective life will be far higher than in the surrounding blocks. The comparison with a mass-housing block with the same population as the Village - that is, about 550 inhabitants - speaks for itself: with much higher financial means, the official city is only able to provide a few different kinds of apartments, arranged in a monotonous pattern; the repetitions of these blocks will by no way ensure the creation of collective spaces between them. In Daulat Nagar, the houses themselves, through their clustering, create a progressive gradation of spaces, leading without precise limit from the common areas of the settlement to the interior of the houses.

3-51: This argument does give the squatter settlement a value which is superior to that of the official city, and thus leads to another argument in favor of its preservation. A difficult question arises: by validating such environments, aren't we at the same time legitimizing the processes which led to their appearance? That is, by saying that a squatter settlement has many good qualities, aren't we valorizing development processes which are partly responsible for the impoverishment of the largest part of the Indian population, and this through mechanisms which are straightforward - and even caricatural- illustrations of the concepts of exploitation and alienation in the Marxist theory? Isn't that also a justification for the superimposition of a foreign culture over the local ones, and for the importation of a system of values which classifies traditional ways of living within the category of poverty? The exploration of these issues is by no way easy. They will be discussed in the next chapter. I must warn the reader that it is not the easiest part of this work. I will ask for his/her indulgence in that respect, asking him/her to consider that if the difficulties he can find on the reading are partly due to the fact that I had a hard time exploring this issue, they also come from its high level of complexity.
Chapter III - The City Of Wealth: Exerpts Of A Case Study

Picture 3-48
Chapter IV

From The Space Of Memory To The Space Of Control

Exploration Of A Photographic Sequence
Picture 4-1: 1958
Chapter IV - From The Space Of Memory To The Space Of Control

Structure of the chapter.

4-1: This chapter deals with relations between development, the official city and the squatter settlements. The main issue is the following: by identifying qualities in squatter settlements, and by asserting that they can lead to urban forms which are more interesting and more fitted to collective life than the official city, aren't we at the same time legitimatizing the process which led to their appearance - that is, the invasion of developing countries by the occidental market exchange system? The question is actually critical, and can lead to unsolvable contradictions. The issues of space and its structures are used to explore this problem. The chapter is divided into seven sections:

1 - Four photographs. Analysis of a photographic sequence which shows the parallel development of a squatter settlement and an official urban area in adjacent sites. The analysis is performed in three steps: spatial geometry, history/memory, meaning and significance. The difference in spatial form is related to questions of origin and of ideology.

2 - The squatter settlement and the city. Through a socio-economic model of urbanization and development proposed by David Harvey, the relations between the squatter settlement and the city are explored. This allows us to consider them as two elements of the same economical system, and to describe the global space of the market exchange economy as striated.

3 - The structure and the construction of the urban space. The issue of "structure of space" is introduced through Castells' work. Urbanization projects are seen as a way to fix the future in an image which is then used as a model. Distinction is made between the location of squatter settlements, which is defined by the spatial structures of the market exchange system, and their internal spaces, which can be structured in an independent way.

4 - They make the future stand still. The use of urbanization theory is a way of stabilizing both the image of the future city and the existing structures of the urban space. It is also a manifestation of the divergence between the interests of the state and the aspirations of the society. The space structures of the market exchange system are related to the conception of the city as a production system, and to the level of control necessary to ensure its proper functioning.

5 - That doesn't work, that's expensive, that's disruptive. Relocation attempts for uncontrolled urban populations are more a way to insert them in the general functioning of the city than a humanistic concern. This point is substantiated through case studies of relocations by Drummond in Brazil and Pétonnet in France. The choice of a developed and a developing country is meant to show that the failure of these attempts is not only due to financial questions.

6 - Order and its representations. Control levels required by the interests of the state are materialized by the imposition of particular spatial orders, independent of the social groups on which they are imposed, and by separating structured collectivities in individuals. Order is actually an abstract and highly contextual concept, whose materialization in a given society translates an ideology and a systems of values. In a market exchange economy, instead of being the consequence of internal social processes, these orders are used as an objective and as a design criteria to imple-
Picture 4-2: 1962

Picture 4-3: Zone east and zone west

Picture 4-4: Existing traces on the site
7 - Conclusion. The photographic sequence used as a point of departure illustrates two systems which relate through a global metropolitan system, but whose differences indicate two different ways to conceive, to structure and to use the urban space. If the squatter settlement is a consequence of a certain mode of development, the same can be said about the official cities in the developing world. One brings a hope to develop an alternative and contextual way of creating places, the other announces a deeper and deeper insertion of the city in the ramifications of global metropolitanism, and a continuously increasing level of state control over local collectivities.
Picture 4-5: 1968
4-2: The exploration of seven surveys in the second chapter provided us with information about both the squatter settlements themselves and the filtering lenses through which they are seen from a western point of view. In the last chapter, we have seen that a given settlement can have many features which allow us to consider it as a valid and almost complete urbanization form. Now, the point of this thesis is to evaluate the squatter phenomenon as a process of creating new urban places, located out of official normative systems. To do this, a major issue remain to be explored: the general conditions which led to the apparition of the squatter phenomenon.

4-3: Many authors, considering that the form of the city is not disconnectable from its socio-cultural context, have been discussing the effects of development on the local cultural systems - and thus on the form of the city. The conclusions are generally negative. Squatter settlement are seen as a mere consequence of exploitive development processes. From the Daulat Nagar case, as well as from La Rocinha (Drummond 1981) and Rouse Avenue (Payne 1977), it appears that this view is too reductive. If it can explain the appearance of squatter settlements, it does not provide us with any information on the way they are socially and spatially structured. These points make them much more than just a side-effect of western urbanization. In many respects, as collective environments, they can be considered as superior to government-funded housing projects - which are a direct import from developed countries. A question appears: can the squatter settlement exert a positive influence on the official city? Is there any possible feedback which can be considered as an improvement, as compared to existing methods of city planning? Many authors (Drummond1981, Pétionnet 1983, ...) argue explicitly in that sense. However, the more global view which I will present here can lead to a reconsideration of this conclusion.

4-4: To discuss the issue of validation and support of development processes, we will have to consider more than just the relations between squatter settlements and development. Two other points are of major importance: the influence of development upon the official city, and the relations between the city and the squatter settlement. It would be impossible to encompass the whole of these issues in one chapter. Some selections have been made - a reduction of the problem for analytical purposes. First, looking at the relations between cities and squatter settlements can only be done in respect to a certain view of the city: a global approach would be either unrealistic, unhandable, or too schematic to be useful. The definition of the city has been the object of a tremendous amount of works. Even to specify the different ways by which it is interpreted would be a thesis in itself. I will here again take the position that each of these analysis generates a certain model of the city, and that different -and even incompatible- models can exist simultaneously in the same cultural context: economical, sociological, spatial, symbolical... Each of these models leads to a specific set of relations with the settlement. It is not obvious to predict if will be able to reach a position which is at the same time valid and coherent for all of them. The second selection consists in limiting the analysis at the level of the urban spaces, and on the different ideologies which can be translated by their
structures. The influence of development on the official city will be discussed through the influence of western modes of planning in any city - including in developed countries.

4-5: The first step in this discussion is the exploration of a photographic sequence. To do this, I will use three different frames of analysis: in terms of space, in terms of history, in terms of power. Each of them all relate to a particular model of the city. They also represent a sequence: each model is meant to be an explanatory concept for the previous one. This sequence could actually be increased by another step: a model based on a psychological interpretation (see par. 4-42). The use of such cause-effect sequences is generally meant to discover a single cause under a complex phenomenon. Let me mention again that this separation of an entity for purposes of analysis is a reductive process like the ones we have seen in the surveys of Chapter II. Many architects (Colquhoun, Rossi, Venturi...), basing their works on theoreticians of representation and of signification (De Saussure, Panofsky, Peirce, Cassirer...), have been using such a process to analyze built environments, and to develop a particular practice in which the origin of spatial forms rests on a system of meanings, which itself rests on a certain philosophy, and so on. What causes what, what is the consequence of what, what means what, and what is signified by what? All these self-referencing questioning appear actually as a set of endless regressions where legitimizing arguments can still be invalidated by going one step further. Interrogations on sense lead into abysses of significations, whose stable zones look like mere concentrations of words. But let's not be so abstract. The three modelizations of the city that I use here have been used by different authors at different times. The way I relate them to each other in this chapter is meant to show that even if models can exist independently of each other, the reality of the city is made of all of them together: only in this way can we get out of the infinite loops of questioning about sense. I hope that by the end of this chapter, they will appear to the reader as a territory where they merge and intermingle, instead of wandering separately as three disconnected lines linked only by secondary paths*.

4-6: These three levels of interpretation can be described as follows:

- **Space: geometry and protogeometry**: What do we see? The corresponding model is a study of the purely geometrical shape of the city: objects, clusters, organizations, associations.

- **History/memory**: Where does the observed environment come from? The insertion of the city in a chronological sequence, made of processes which are or have been active, allows a further level of interpretation of its physical aspect. Social scientists would use the word "diachronic" to describe this relation with time. Created through and by cultural processes, it becomes a recording of past and present cultures which can be deciphered through it.

- **Meaning and significance**: introducing the issue of

* These three models can be seen as presenting similarities to the three categories proposed by Panofsky to analyze an image: pre-iconographic, iconographic, iconologic. A sequence of interpretations similar to Panofsky's, for instance, will start with the city as perceived by the senses - its spatial configuration, then proceed to a first level of interpretation consisting in the recognition of the object, then to a second level which consists in what does the object tells us which is not included in its construction. The next level, which is not included in Panofsky's analysis, is the origin of our interpretative schemes themselves. The use of the photograph in this work presents many differences with a Panofskian interpretation. I am not only looking for hidden meanings in them: I am also stating that meanings have an origin. The photograph is the point of departure of an exploration, the result of which can only be superficially illustrated by it.
control. What are the instances which define meanings and values? Can some system of values be related to any implicit purpose? Introducing the issue of power opens the question to know to which extent cultural processes are generated by power instances: power produces knowledge (Perrot 80). The sets of cultural values through which the city is analyzed and evaluated are a product of the dominant ideology, which also constructs the concepts used for the analysis.
4-7: In many occasions, in different countries and through different kinds of upgrading processes, squatter settlements can evolve to give birth to consolidated neighborhoods, hardly distinguishable from middle-income class areas (Allochi 1982). The first steps of this evolution appear in Daulat Nagar (chapter III). The triggering conditions of these processes vary a great deal. Their motivations can be as people-caring as brutally political (Collier 1976). They however have a common point: they require some kind of security of tenure, either explicit through official processes, either implicit after long periods of undisturbed land occupation. A few years after the beginning of the evolution process, the resulting neighborhoods are as healthy and sound as traditional towns, to which they physically resemble in many respects - land use, construction materials and techniques, use of rural elements... India (Kapur 85, Reeves 88), Kenya (Reeves 88), Brazil (Drummond 81), Colombia (Popko 78) provide multiple examples of this. Popko’s pictures are also quite illustrative. These consolidated settlements are then progressively incorporated into the official urban fabric, either by swallowing or by accretion. Squatters in the XXe century actually design huge urban areas - the most important in fact, in terms of populations and superficies.

4-8: The four photographs (Pict. 4-1, 4-2, 4-5, 4-6) illustrates a settlement going through fifteen years of evolution. They represent the same area, photographed a different times between 1950 and 1970. From a rural countryside, located right at the outskirts of the city of Bogotá, the landscape is progressively transformed into a complete urban section. On the east (left of the picture), squatters have been creating a whole neighborhood. On the west (right of the picture), an urban area has been planned and implemented by the municipality.

Spatial description: geometry and protogeometry.
4-9: In this first step of analysis, we will consider uniquely the spatial configurations displayed on the pictures. The area can be divided in two parts: a flat zone on the left, hills on the right. Squatters have been invading the hills, most likely because risks of eviction are less important on less valuable land. The progressive evolution of the squatted area demonstrates a piece-by-piece invasion, what Gaudin would call an “enumerative operation”. The two last pictures show an officialized settlement. Services are present at an embryonic stage on picture 4-5, at 75% on picture 4-6. The flat zone has been developed at once. The layout has been traced an implemented as a global project before the construction of the buildings.

4-10: In geometrical terms, the flat area displays a geometric perfection which is absent from the ex-settlement. Straight streets are perfectly straight, curves are portion of circles. Mathematically exact, it bears the traces of the rules, set squares and compasses which has been used to design it on a drafting table. It has been conceived from the sky, by a planner who did probably not realize the divine aspect of each of his pencil strokes. The neighborhood on the hill has been implemented from the ground level, by a slow incremental process*. Successive additions have had to adapt not only to the topographical features of the area, but also to the constraints due to the presence of earlier
squatters. Straight lines are alignments, curves are more than approximate in geometrical terms. No concern for orthogonality is visible. Small shifts in direction, “atoms of angle”, clinemens*2, sinuous streets and vague parallelisms oppose the general pattern to the flat zone. The layout is guided by what Deleuze and Guattari suggest to call a “protogeometry” (see Pict. 1-5 ), where the straight line cannot exist independently of a rectification, the square of a quadrature, the cube of a cubature. Being progressively installed after the progressive implementation of the streets, service lines are subjugated to the existing settlement. The rational behind the final plan is not technological.

4-11: As opposed to these fine textures which reveal the smallest contingencies of the pre-existing site, the area planned by the city has been totally neutralized for the implementation of a global design. Existing paths and irregularities are erased so as not to interfere with the new organization of space. The establishment of such a controlled order presents a lot of analogies with a military strategy: the major gestures of the planner require a tabula rasa to be integrally implemented. Nowhere will they be more adapted than in these flat areas where only a few traces of previous occupation or use do exist, where no hill or slope interfere with the realization of a plan establish on the flatness of a sheet of paper. Let’s compare on the diagram on Pict. 4-3 the few traces existing on the undeveloped site with the new urban order under which they have been forever buried. Thinking that the latter has the potential to deal with the former, and could realistically be asked to do so, is absurd to a high degree. The very scaling of the technology called into service to realize the vision of the planners is incompatible with the preservation of these few footpaths.

History and memory: preservation as a consequence versus conservation as an objective.

4-12: The diagrams on Pict. 4-3 and 4-4 illustrate the second point: history and memory. These words are used here in Rossi’s sense (Rossi 82). The memory is constituted by the traces of processes which have influenced in the past the physical aspect of the city, but which are not anymore going on. Historical processes are still at work. The first diagram represents existing paths before development. Let’s compare it with the layout on the right of Pict. 4-6. The main difference consists in the way to consider and to deal with what was there before urbanization. Squatter development is a design of merges, of acceptance, of tractations with the geography. It deals with topography, and compromises itself with existing traces. Irregularities are not erased to the profit of the newcoming order. Their incorporation creates this variety of physical features of all scales which constitutes the memory of the final settlement. The arrival of the first squatters then modifies the “there is” for the next ones. Possibilities of choice, for location as well as for lots size, get more and more limited when the area is densified. Clusters with vague limits, interrupted rhythms, minor orders and juxtapositions generated either by necessity, force or agreement, all testify for a process of place-making which does not aim to a definitive image. The incorporation of existing natural

*1 The process is slow as compared to the planners’ project. Compared to the evolution of a traditional city, it actually experiences an amazing compression of time.

*2 The clinamen is the very point where for instance a tangent and a circle begin to separate, an ambiguous geometrical location where the division is not yet totally decided.
features results in the creation of a first strata of memory: the layout is a recording of local anecdotes, of spatial micro-events. Further evolution steps will transform the first settlement into a second memory layer, and so on. Since this evolution is not simultaneous for the whole place, different stages of evolution will coexist at any point in time. These successive accumulations, enriching the neighborhood with multiple levels of significance, recording some of the infinitesimal events having led to its actual state, are one of the phenomenon by which the identity and the unicity of the place are created. As specific as a fingerprint, they will state unambiguously the existence and the actualization of "this" place, "this" settlement, "this" neighborhood (see par. 1-17), whose reality, instead of tending towards a fixed ideal located somewhere in the future, is a perpetual becoming. As opposed to a city planning which imposes its space structure and creates a world in its own terms, squatter architecture is first and primarily an act of deposition.

4-13: In paragraph 4-11 above, it was mentioned that industrial methods do not have the potential to preserve traces and elements existing on a site before construction. This opens the question to know why they would anyway be willing to do so. In order to answer this question, a distinction has to be made between the preservation of memories and histories for their own sake, and a way to develop land of which their preservation is a mere consequence. Elements from the past have an obvious importance for a number of reasons: first in terms of rooting populations in their living places, second because of the role many of them play as supports of social and traditional systems, third because of the way they do enrich the visual context, and so forth and so on. Arguments based on these considerations has been validated among other things by studying previous situations where the past has been obliterated by some authoritarian instances.*1 There is however many problems with such an argumentation. Among others: it can be validated for any physical trace embedded with a historical significance; it does not put any judgement of value on the system which has in the past produced these elements.*2 This does not exclude the possibility to consider technological products as such. Their meaning as traces of the XXe century cannot be neglected.

4-14: This can be summarized by saying that preservation of traces of the past cannot be considered as a meaningful objective in itself, for present realizations are also tomorrow’s historical remains. However, Castells’ argument on the ideological aspect of the urban question (Castells 1973, p.440) shows that such an attitude towards industrialization processes is based on a confusion between three different issues:

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*1 Turkey is an example of a whole country which is disconnected from his past. After the Ataturk revolution in the twenties, the country has been forced into a process of occidentalization. The mandatory introduction of the Latin alphabet in education does not allow anymore Turkish to read inscriptions on their historical buildings. Many traditions have been forbidden: punishment for wearing a traditional hat was hanging. The result has been often described as a schizophrenic society.

*2 Nobody would be opposed to the preservation of Versailles, for instance. However, many of the admirers of the castle would be strongly disappointed to learn in which circumstances and at which cost the castle has been built. Symbolizing the power of a supposedly wealthy state, its construction meant five years of starving for French people, and the king himself did not want the cost to be known, so the bills were burnt. Estimations today lead to an amount which is equivalent to a few times the price of the Apollo program, this on the XVIIe century.
a) - The problem of spatial forms;
b) - The objectives of an industrial mode of urbanization;
c) - The cultural specificity of "modern society".

Difficulties with this attitude also come from another side: the definition of the aims, motivations and consequences of applying industrial technologies to the city, especially in the case of developing areas. One of the consequences is directly related to the issue of control, and is fundamental in terms of the future of the city. It is the object of the second and third sections of this chapter.

**Meaning and significance:**

**Introducing the issue of control.**

**4-15:** The right side of Pict. 4-6 shows an urbanization plan which is directly derived from an occidental model of planning. What is the meaning of importing such a model in developing countries? What role does it play in developed areas? Before to discuss these issues in detail, let's mention that the implementation of such a perfect geometry at such a large scale is the manifestation of a high level of control. Control on the space first: this kind of planning arises in areas where the speculative potential of each space is defined, so as to ensure predictable and worthwhile returns in investment. Control on technological means: the implementation requires heavy industrial materials, access to expensive resources. Control over people: the laborers which have been working there are not the one which will use and profit from the area - the well-known concept of alienation. Control over time: this area will remain unchanged for the next decades, in the implicit hope that this stability will ensure a proper functioning of every process happening on it - still the need to predict. The search for the purposes of such a control level - why is it required? - must be distinguished from an inquiry for its reason- why would anyone be willing to reach these objectives? The next sections will be focussing separately on these two questions. Neo-Marxist economical models (Harvey 1973, Castells 1973, ...), political analysis (Collier 1976, Gunder-Frank 1967, Tempia 1981, ...) have been exploring the first. The second is far more ambiguous. Attempts are often located at the borderline between psychoanalysis and metaphysics (Sennett 1970, Koolhaas 1978). Harvey's, Castells' and Sennett's hypothesis will be discussed.
2 - The Squatter Settlement And The City
Ramifications Of a Global Metropolitanism

4-16: The surveys of the second chapter show different levels of emphasis on the relations between squatter settlements and cities. Peattie rejects interpretations which consider them as separate economic systems. She starts her demonstration by quoting authors which explicitly connects them to a global pattern of development. Payne takes the trouble to go again through that demonstration, including the unavoidable paragraphs on relativity of standards, ethnocentrism and cultural colonialism; if his survey is not a self-contained piece, the book is meant to be so, and encompasses many aspects of the development issue. Drummond states that the favelas are more “urban” than city centers, which enhances the different meanings attributed to the term “urban” (Klong Toey was an area in need of “urbanization” according to Phisuthikul and Oharoen). Lapierre makes accounts of both the advantages and the problems brought by the city in the squatters’ life, and at the same time shows that the city would be unable to function properly without them. Popko illustrates implicitly this issue, both by presenting images of so-called “informal” workers in the city, and through the fascinating photographic sequence above.

4-17: The importance of these relations actually depends on the levels on which they are considered. It can vary a great deal from one to the other: for instance, they are much more important on the economic level than on the geographic one. Before going to this, the introduction of a socio-economic model of development will give us a first image of the structure of space imposed by the market exchange economy over the developing world. Some of the consequences of importing this occidental system in countries with a traditional economy will appear along the presentation.

4-18: To undertake this task, I will refer to two authors: Raymond Williams and David Harvey. In “Countries and the City”, Williams retraces the evolution of the English society from the beginning of industrialization, through the various ways by which the corresponding social changes appear in English literature. Harvey is a social geographer. His thought, as he states, is related to Marxian’s theories, not by “thought influence”, but by “thought convergence”. His essay “Social Justice and the City” is an attempt to develop a theory of urban space linked to the organization and the repartition of the “socially defined surplus product”, or SDSP, considered as a condition sine qua non for the apparition of any urban form.

4-19: Williams describes the progressive industrialization of developing countries as similar to the modernization of the English hinterland during the first steps of the industrial era. The relations now existing between developed and developing countries as similar to the relations between cities and countryside in England at this time:

“In current descriptions of the world, the major industrial societies are often described as ‘metropolitan’. At first glance this can be taken as a simple description of their internal development, in which the metropolitan cities have become dominant. But when we look at it more closely, in its real historical development, we find that what is meant is an extension to the whole
world of that division of functions which in the XIXe
century was a division of functions within a single
state. The 'metropolitan' societies of Western Europe
and North America are the 'advanced', 'developed',
industrialized states; centres of economic, political
and cultural power. In sharp contrast with them,
though they are many intermediate stages, are other
societies which are seen as 'underdeveloped': still
mainly agricultural or 'under-industrialised'."

4-20: Harvey follows this line of thought, but his
description of these relations is somewhat darker.
Both have actually a lot of points in common. Quoting
Marx:

"Modern history is the urbanization of the countrysi-
de, not as, among the ancients, the ruralization of the
city". (Harvey 1973, p.204)

"Urbanization of the countryside" is to be read as
similar, for this thesis, to the striation of the rural
space. In Harvey's sense, development is considered
as a way for a specific mode of economic integration,
the market exchange mode, to expand its ramifications
in all possible sectors of life. The development of a
country is made through a series of systems and
networks whose role is to channel the SDSP to the city.
International development is a similar process, with
more ramifications; developed world cities are seen as
an intermediate step in the circulation of the surplus
from the countryside of developing countries to the
metropolis of the occidental world.

4-21: The notion of "socially defined surplus product"
and of "mode of economic integration" (see frame 4)
are basic to Harvey's work. The relevant point for our
study is not as much the notion of three modes than the
influence on individual and collectivities which comes
along with them.

"The market exchange relationship affects the con-
sciousness of the individuals participants in a number
of ways. The individual replaces states of personal
dependency (characteristic of egalitarian and rank
societies) by states of material dependence."

The "value" of a person in rank societies refers to its
moral worth. Then, "the value of any exchange cannot
be separated from the value of the persons involved in
the exchange." In egalitarian societies, the value of an
object lies in the immediate use of a good insofar as it
meets the needs (in general) of the individual. In
market exchange, value becomes a function of command
over resources obtained through an act of exchange.
The value is an abstract quantity, determined
through the functioning of a market system based on
money as a measure of value.

4-22: Harvey's notion of global metropolitanism is
also particularly important for this thesis. The urbani-
zation in developing countries is interpreted as the
expansion of the market exchange mode, in its neces-
dary attempt to invade new realms of social life and
new territories:

"Insofar as its existence is predicted on surplus value
into circulation to increase surplus value, it has to
expand in order to survive".

The origins of such a development can be traced as
soon as the XVIIIe century, when trade and commerce
were the first sectors to be penetrated by this activity.
Harvey states that the extraordinary thing is that it took
so long to penetrate other aspects of social life in
England; later in his book however, he himself ac-
knowledges the existence and the importance of social institutions and organizations which prevents, consciously or not, a total invasion by this mode.

4-23: Harvey gives the name of global metropolitanism to the international relation similar to the relation between city and hinterland mentioned by Williams. A diagram of his model would be quite similar to a tree, whose roots take the vital substance in the deepest layers - the less urbanized ethnic groups of the developing world - and channel them towards the first world, in order to allow the blossoming of occidental cities.

There is a crude simplification in this scheme, which looks like the description of a straightforward coloni-

Frame 4: Modes of economic integration

The notion of three “modes of economic integration” come from the works of Karl Polanyi (Polanyi 1968). Harvey (Harvey 73, chapter 6: Urbanism and the city: an interpretive essay, p.195 -284; all following quotations from this chapter) associates them, in a rather general way, with the three distinctive modes of social organization described by Morton Fried (Fried 1967): egalitarian, rank and stratified.

“In general it appears that reciprocity is exclusively associated with egalitarian social structures, that market exchange (...) is exclusively associated with stratification, but that redistribution may exist in either rank or stratified social structures”

a) - Reciprocity applies to any group where the transfer of goods, favours and services among individuals is made according to certain well-defined social customs. It generally accords with the existence of symmetrical groupings in the social structure. The society is characterized as egalitarian: there are ‘as many positions of prestige in any given age-sex grade that there are persons capable of filling them (...) there are no necessity to draw them together to establish an order of dominance and paramountcy. Mechanisms of social coercion do not exist.

“Reciprocity can be found as a residual form in urban societies in such diverse places as the collusive practices of large corporations and in the acts of friendly exchange and mutual support among good neighbors in a community.”

Urbanism cannot emerge from a society dominated by this mode: it is unable to generate any surplus product.

b) - Redistributive integration involves a flow of goods to support the activity of an elite. The flow is radial-oriented in relation to a centre. The passage from reciprocity to redistribution allows the creation of urban centers. But:

“There can be no urbanism and no hierarchy of urban centers unless there is some significant hierarchical ordering in the social structure. It seems likely that in general, a redistributive society will be sustained through the establishment of rights over products and means of productions, necessitating the creation of a coercive power.”

This results in the emergence of political and legal institutions in the superstructure.

c) - Market exchange as a mode of economic integration has to be distinguished from the exchange processes between people, which can occur under any mode. For the exchange to be integrative, the behavior of the partners must be oriented on producing a price that is as favorable to each partner as he can make it (Polanyi, 1968). Exchange value rather than use value is the focus of exchange. The circulation of money is the ‘hallmark of business behavior’.
alism. Other thinkers (Gunder-Frank among others, on his studies about South-America) present the situation on a less bleak way. However, if it would be difficult to apply it directly to countries under a welfare capitalist system, and even to the actual situation in many developing countries, its simplicity seems appropriate to describe what the global metropolitanism is aiming to - a situation where the simplicity of the description is due to the simplicity of the intention. The distinction introduced between the ideologies which underpin the different modes of economic integration, and between the sense of human value related to each of them, is probably the most valuable part of the model.

4-24: The importation of a market exchange mode in a traditional society upsets both existing human values and social hierarchies. Whatever was the social position of the squatter in his original location, his coming to the city transforms him into a urban poor. The very concept of squatter settlement does not exist in a society where land property is not a sacred right. Local good-exchange patterns, which are most of the time totally different from the imported one, are also transformed. In specific cases, as in many South and Central America countries, local autonomous systems are replaced by one country-wide system: people do not produce anymore for their direct consumption, but for the purpose of selling the product of an agriculture which is progressively transformed into a mono-culture. They become simple workers. They are not anymore self-sufficient. If for some reason - market drop in the first world, destruction of plantations for any cause- this unique activity does not provide them with sufficient wages to fulfill even biological requirements -Harvey’s subminimal level- their only choice is to join the flow of urban migration in a lottery search for employment.

4-25: The inflow of people thus created is running from a repulsive pole - constituted by all the reasons why people do not want to stay at their original place - to an attractive one - made from all the reasons why people want to come to the city. Foods, drought, wars, famines, political conflicts, all result in a massive input of people in urban areas. This has been the case all along history; there are however many differences specific to the XXe century. First, the city does not have anymore the possibility to integrate them. Second, in the attractive pole, the need for employment has become the major reason, if not only one. There are two ways by which this can be connected with Harvey’s model. On one hand, the employment sought for is typically the one which is generated by the market exchange mode. On the other hand, the ideological and economic models imported from the developed world, partly responsible for this migration, also disrupt existing social patterns.

4-26: All this describes squatter settlements as a consequence of the general process of invasion by the market exchange mode. However, squatter settlements today have been developed to such an extent that they cannot be considered only in terms of a “consequence” of something. They become an integral part of the formation of the city. But in general, socio-economic analysis of squatter settlements still consider them as development leftovers, as symptoms of the inadaptation of local societies to the modern one.

4-27: Many author involved in development describes the process of development as the extension and the penetration of a foreign economic system into local ones. The concept of dualism has been first introduced to describe the situation resulting from the simultaneous presence of the two systems - traditional and
modern. Many intermediate categories have since appeared in development literature - rural traditional, modern rural, urban traditional, and so on. In a more recent view, squatter settlements, city and metropolis are different elements of a single process; they are pieces of a same economic system. The concept of dualism, still widely used, hides the way they do relate today, creating an artificial dichotomy in what should be seen as a continuous gradation between two poles. There is no more dual economy, but only a global ramified one. This theoretical view is substantiated by Peattie through her fieldwork (Peattie 1980). She sees the dualism concept as inadequate; however, according to the information she provides, I would rather describe it as obsolete. The contemporary situation results from the evolution and the progressive merging of the two early ones. Early descriptions of two separate systems were certainly fitted to the situation during the beginning of industrialization, even if for a very short period. The Neo-Marxist view describes a different state, which is likely to happen when the two systems interrelate. Peattie’s concept describes the following step. These three different views are linked to different time periods. The validity of the concept of dualism progressively declines when the relations between the two systems gets more and more intricate.

4-28: The diagram of Pict. 4-7 represents the sense of the flow of money between the two systems, as described in Peattie’s paper (Peattie). It illustrates quite well Harvey’s model: the flow of surplus product is channeled towards the city. The disappearance of dualism does not change the general pattern of circulation, but only smoothen it. The dark picture depicted in “Social justice and the city” happens to be realized here. From the moment the surplus enters the official economic framework, it will be channeled towards the most industrialized countries through foreign inves-

tors and development policies. The infinitesimal selling processes described in par. 2-59 are thus incorporated into the global metropolitanism. As unimportant individually than the gas exchanges occurring at the level of capillary vessels, their concentration in the settlement, and the concentrations of settlements around the city, manage to generate this flow of money which partly supports the wealth of developed areas. The squatter settlement is not an autonomous urban entity in economical terms. To use Deleuze and Guattari’s representation, the economical space of the squatter settlement is a striated one. The channeling of the surplus has both an orientation and a direction; its final objective is known from the departure.

4-29: The general extension of the market exchange system makes tempting a generalization of this view to all squatter settlements. This would however require a deeper investigation. Two points would be worth exploring:
- Will this pattern appear with the same clarity in squatter settlements in different countries or continents? Criteria like occidental influence, strength of traditional systems, pre-existing social networks, religious institutions are likely to modify the penetration of the market exchange mode. True, any colonial process has had as a result (if not as an objective) to drain surplus product from the colonized country towards the metropolis. But in areas like South America, where all major urbanized areas have been created by and after the colonial period, cities where from the beginning of the colonial era the loci of surplus concentration before the final channeling to metropolis. A country with an important pre-colonial urban structure is likely to be less vulnerable to this invasion.

- Is there a threshold size over which the squatter settlement can develop an internal economic system, able to grow by draining an external surplus product from outside? The influence of non-official or illegal flows of money would be a basic parameter for a study of this kind. The investment constituted by the houses would also have to be considered, especially in the case where most of the materials are recuperated by squatters working in construction. According to Harvey’s model, if the settlement can develop its own surplus product, then it has the potential to develop an urbanism on its own.
4-30: Castells, in “The Urban Question” (Castells 1973), analyzes the production of the urban space and the urbanization of the rural space in market exchange economies. In a later book, “The city and the grass-roots” (1983), he studies different social movements involving people and their city along history. The urban space for him is more than the mere translation of social processes:

“Space is not (...) a reflection of society but one of society’s fundamental material dimensions. To consider it independently from social relationships, even with the intention of studying their interaction, is to separate nature from culture, and thus to destroy the first principle of any social science: that matter and consciousness are interrelated, and that this fusion is the essence of history and science. Therefore spatial forms, at least on our planet, will be produced by human action, as are all other objects, and will express and perform the interests of the dominant class according to a given mode of production and to a specific mode of development. They will express and implement the power relationships of the state in a historically defined society”. (Castells 1983, Conclusion).

Frame 5: Origins of the restructuring of the urban space by the market exchange mode.

“(...)Dominant interests of the capitalist mode of production, during its industrial model of development, led to a dramatic restructuring of the territory and to the assignment of a new social meaning to the city. Four socio-spatial processes account for this transformation:

1 The concentration and centralization of the means of production, units of management, labour power, markets, and means of consumption in a form of the gigantic and complex spatial unit known as the metropolitan area.

2 The specialization of spatial location according to the interests of capital and to the efficiency of industrial production, transportation, and distribution.

3 The commodification of the city itself, both through the real estate market (including land speculation) and in its residential areas (...).

4 The basic assumption that the accomplishment of this model of metropolitan development necessitated the mobility of population and resources, shifting to where they were required for profit maximizing. This assumption followed massive migration, disruption of communities and regional cultures, unbalanced regional growth, spatial mismatching between existing physical stock and need for housing and facilities, and a self-spiralling urban growth beyond the limits of collective efficiency and short of the minimum space-time requirements for the maintenance of patterns of human communication.
of construction and use—has experienced a complete restructuring since the beginning of industrialization. In Frame 5 is a description of the causes of this restructuring.

4-32: The new structure of the urban space is hierarchized in terms of location prestige, existing infrastructures, potential advantages. The location of squatter settlements is basically indifferent to most of these criteria: the only important one is the access to work or to easy transportation. They are thus likely to be situated on lands which, on a speculative point of view, are highly valuable. This result in many cities in real crisis situations: we have seen an example of this in Chapter III, in the case of Bombay. Since even this is not enough to fulfill the demand for housing, many squatters have been pavement dwellers for years. In terms of land occupation, squatter settlements escape all categories based on the market exchange system—at least during the first steps of their evolution. This has an obvious corollary: in any place where private property is institutional, squatter settlements are illegal.

4-33: For squatter settlements, the only location criteria is location near employment: this is almost a definition of their status in a market exchange society. Providing a labor force at such a cheap cost that they cannot even afford to pay transportation to go to work, most of them incorporates among the most alienated population of the planet. At the same time, they are as indispensable to the official economic system as he system is to them. If, in official terms, squatter settlements are illegal, their apparition is implicitly expected for the functioning of the general economy. It is even possible to predict where they are going to appear. To say that the market exchange system leads to a particular structuration of space amounts to state that the use of space can be defined far before the beginning of any construction; this is equally valid for illegal land occupation. Before the emergence of the first invasion shacks, the preferential spaces for their appearance can already be located: any empty space close to city centers, any area at the outskirts of big cities, every bare land close to transportation, which for any reason has not yet been developed.

4-34: If the global economic system allows prediction about the location of future settlements, it does not say anything for their inner spatial organization, which can take almost any configuration—from a labyrinthian layout to a perfect grid. This is illustrated by the photographs above (par. 4-7 & seq.), by the various plans of chapter II, and by the case study of chapter III. These spaces are enclaves created by the market exchange system; as long as they remain illegal, they can be located out of the related ideology in what concerns the uses and the practices of space. When officialization occurs however, the situation changes drastically.

4-35: Officialization means for a settlement the possibility of having services and legal addresses, and for the squatters to become citizens. The area will become healthier, and the social status of each of its members will improve. Simultaneously, in terms of its relations with the city, this implies the incorporation of the whole settlement in the dominant economical framework. As mentioned by Drummond (Drummond 1981, p.102), use value is replaced by market value whenever the house begins to follow official norms. Compliance to these norms affects not only the form of the city, but also its possibility to evolve. The flexibility of the squatter settlement space, and its possibility to adjust quickly to changes in population or social patterns, begins to disappear as soon the settlement becomes official.
4-36: These characteristics, as well as the physical aspect of squatted environments, find their origin partly in the precarious status of the settlements. Before officialization, they can be relocated or dislocated at any time. In many cases, the precarious and wobbly aspect of the houses is due to this fact, and not only to low-income. Whenever materials are valuable -by use or market value-, they are assembled in a way which allows their eventual reusing. (See for instance pict. 2-48). Because of their flexibility and their semi-temporary aspect, they have been described as semi-nomadic. Their entry in the official sphere corresponds to their sedentarization - to the striation of their physical space. The rapidity with which consolidation can occur after legalization and security of tenure shows that many squatters have the means -even "informal"- and the will to build sound urban environments. The settlement can evolve to become a normalized urban neighborhood. Predictions can be made on their population, on investment returns, on their general evolution. They enter the sphere of state control. Sometimes, the will of the squatters to be part of an official city appears before any legal claim in that sense (see for instance chapt 2, pict. 43 and 2-44); as if this "urbanization" process could be catalyzed through this kind of similarities. The idea is far from absurd, and results in a transformation of the image of the slum both for mass-media and public opinion - which is an achievement in itself. For instance, this quotation of the Jornal do Brasil:

"Each day new barracks are erected. Their construction is rudimentary; it only indicates the occupation of space, then with the greatest calm and all possible guarantees, favelados begin to transform the house with masonry (...) with view on the sea (...) masonry walls, concrete floor, asbestos-concrete water tank, French tile or terraced concrete roof (a second floor will be soon added), sound windows with locks. All this, with a little paint, decharacterizes the barric construction, withdrawing from it all pejorative connotations, transforming it into a house with an address on the door and a TV antenna (...) the favela now grows in height, a vertical expansion which was characteristic of the asphalt city." (Drummond, p. 102).

As Drummond mentions, if the squatters are themselves willing to enter the official sphere, there is no point to try to try to destroy the settlements: they are destroying themselves from inside.

4-37: This phenomenon marks the freezing in time of a constantly moving pattern. Two variables are likely to affect the spatial configuration of the resulting neighborhood: the moment of this freezing, and the balance between authorities and squatters involvement during the period of officialization. A settlement which is official before the beginning of its construction, and in which service lines and layout have been designed by an official agency, will be fundamentally different from a settlement which has been evolving illegally for decades, and which has been upgraded by methods similar for instance to Geddes' conservative surgery (see pict. 5-1 and 5-2). If the settlement on the photographic sequence above has been erased and replaced by a sites-and-services project, it would have been quite similar to the area on the right in terms of spatial order. The ideology related to the market-exchange economy would have governed even the inside of the settlement.

4-38: The objective of developing world cities to get rid of squatted areas, either by relocation, dislocation or officialization, is not so much governed by social concerns as by the potential threats which can arise from any place where state control is impossible.
Planning proposals generally consider squatter settlements as simply unexistent (par. 3-7). The importance of the phenomenon now makes illusory any proposal of that kind. Nonetheless, models of urbanization from the occidental world, that is, from a world without squatters (or almost), are still being imported: they are images of the city of welfare*. Now, what does these models imply for the future of the city? And what are the reasons for the city to head towards such futures? This will be discussed in the next section.

*An example: Mayor Dalan in Istanbul bases his new planning proposals on models such as Stockholm in 1960. This does not consider two points, which are not actually disconnected: first, that the city of welfare is wealthy because cities of the third world provide it very cheap labor. There is not enough wealth on the planet for every city to be as well-off. Second, the amount of squatters in Istanbul is about a half 40% of the population of the city. Planning a city with so many squatters like a city without any squatters is a process which is totally disconnected from the real situation. It will require strong coercive means to achieve its objectives.
4 - They make the future stand still.

4-39: As mentioned in par. 4-20, the importation of a market exchange economy in a developing country does not affect only the local economical frameworks. In order for it to be accepted, and in order for the conditions of its existence to be installed and reproduced, the cultural and ideological values on which it is grounded (and which, according to Marxist theory, it has generated specifically to perpetuate its own existence) have to come along with it. They have to overwhelm local traditional and institutional systems which are incompatible with it. The point of interest for us is the importation, among the cultural values, of the hierarchization of knowledge typical of occidental countries, in which science and technology occupy the highest ranks. One of the main reasons for this is the intimate connection between science and power, and the strong interest of any state authority for the technological applications of the former. Urbanization in the occidental work is based on a scientific ground, meaning that it makes use of theories which are supposed allow predictions on the behavior of urban systems.

4-40: What are the motivations of establishing predictive theories about such an entity as a city? Three of them will be considered here:

a) - A straightforward motivation is provided by any urban planning project which considers the city as a system oriented towards a precise objective. For instance, if it is seen as a production system, the need to be able to predict production levels requires predictions on the system itself. A metaphor for this is the city as a machine. Maximization of production requires an optimal functioning, which requires a perfect control and a coordination of all its parts. In Harvey’s description, the product expected from the city is the “socially defined surplus product”. This view of the city is not dissimilar to the Neo-Marxist idea presented in Peattie’s paper. Castells goes one step further: what is produced by the city is the environment which allows the reproduction of the conditions of production. This view incorporates even cities which work like religious,universalist or administrative centers: state, education and religions are seen by Marxist as ideological state apparatus (Althusser,) whose very role is precisely this perpetuation.

b) - The second one is the use of a particular model as a political device. This can be traced far back in history. Administrative cities in the Roman empire were all planned on the very model of Rome (Grimal 1954, p. 6-7). In Roman colonies, these cities stood as land and spatial inscriptions stating the power and presence of the dominator. The importation of occidental planning today is something more subtle, but not dissimilar. Its appearance indicates the arrival of the market exchange economy. In the same way, the “international style” is the very mark of westernization. To the difference of Roman colonies however, the authorities of these countries are quite willing to accept the new model. As mentioned in par. 4-4, its acceptation is related to the former establishment of a system of values in which it is considered as “what should be done”.

c) - The third one relies on a social model which tries to explain cities in terms of collective psychology. To simply say that the occidental world is draining sur-
pluses from the developing world does not tell anything about the reasons of such an attitude. Attempts to understand this behavior are located, as mentioned in par. 4-15, at the borderline between psychoanalysis and metaphysics. A society which accumulates wealth and which plans its cities in advance is seen as a society which never learnt how to deal with the unexpected or the unknown, and which tries by any means to project its familiar present into the future - a basic statement of insecurity. Richard Sennett, in “The Uses of Disorder”, describes these theories as acts of self-defense. The difficulty to be overwhelmed by problematic situations is dealt with “by fixing a self-image in advance”:

“One technique of planning large human settlements developed in the past hundred years has been the device of establishing “projective needs”. This means guessing the future physical and social requirements of a community or city and then basing present spending and energy so as to achieve a readiness for the projected future state.” (Sennett 1970, p. 6).

4-41: The image defined by these “projective needs”, supported by the privileged status of science as a predictive tool, becomes the objective towards which the city must head, whatever the changes in the general context. For instances, claims by local groups are considered as interfering with the planners’ projection:

“Over and over again one can hear in planning circles a fear expressed when the human beings affected by planning changes become even slightly interested in the remedies proposed for their lives. “Interference, “blocking”, an “interruption of work” - these are the terms by which social challenges or divergences from the planners’ projections are interpreted. What has really happened is that the planners have wanted to take the plan, the projection in advance, as more “true” than the historical turns, the unforeseen movements in the real time of human lives” (Sennett 1970, p.7).

As the modern navigator which cannot depart from its strictly controlled trajectory, which cannot change the objective of its trip under any circumstances, the planner heads towards an objective along a time path where all steps are known in advance, and where the final project is not to be modified. The chronological space of the planner is a striated one.

4-42: The lack of tools allowing the planners to deal with the unexpected is considered by the author as typical of a society which is in an immature adolescent stage: it isolates itself of anything which threatens or destabilizes the identity it is trying to constitute*. A paradox is revealed through this comparison: even if planners make use of the most advanced planning methodologies, the will to fix the future in an image similar to the present is actually a strong conservative statement.

4-43: The metaphor of the city as a machine provides

* Sennett’s argument is essentially a psychological one. This weakens the demonstration: assimilating directly the behavior of a society to the behavior of an adolescent - that is, of an individual - is an extremely dubious extrapolation in social sciences, since it assumes the existence of a collective psyche, which is still to be demonstrated. It could be useful as an analogy, but Sennett seems actually to use it as a theory. More -and even worst-, no distinction is made between the will of the state and the expectations of the society. Its interest, on another hand, lies in the fact that it allows us to distinguish between the cause and the purpose of a theory.
us with the second, the inability to deal with the unexpected with the first. Starting from Sennett’s study, it would be interesting to investigate in a more general way the relations between these two interpretations. Is one really the consequence of the other? But this is not the point here. No matter which one is the symptom and which one is the cause, the city they try to announce is contradicted and denied in the developing world by the squatter phenomenon, and by the results of attempts for solving what is still commonly called "the squatters problem".
5 - That Doesn’t Work, That’s Expensive, That’s Disruptive
A Few Comments About Relocation Attempts.

4-44: In many urbanization projects of the last decade, squatter settlements are still regarded as temporary. They are often considered only as transit settlements, which should be progressively absorbed in the official urban framework: their actual situation is regarded as a momentaneous crisis linked to the process of industrialization. As seen in the Daulat Nagar case study, projected urban futures imply their resorption. This temporary aspect is now illusory for an overwhelming majority of settlements. This is substantiated both by theoretical arguments - squatters are a necessary element for the functioning of the city - and by evidence in almost any developing country: even temporary shelters built after natural disasters are converted into permanent villages. Relocation attempts which do not consider the importance for the squatters to be close to employment will get only partial -if any- results in terms of the city, and will hardly bring anything to the squatters. If, moreover, they do not consider the importance of collective structures in the settlement, they are likely to lead to real social problems. Substantiation of these points are innumerable in squatter literature. Let’s only mention Drummond’s section on the conjuntos in Rio (Drummond 1981, p.95 & seq; see par. 4-46 & seq), Payne’s report on relocation attempts in India (Payne 1977, p.66), and, for developed countries, Petonnet’s work on Parisian suburbs (Petonnet 82, p.129 & seq; see par. 4-49 & seq).

4-45: Naive observations are sometimes the most useful in terms of finding the knots of difficult issues. Relocating squatters is a misinterpretation of their fundamental and more critical need. It is sometimes done under the pretext of “providing them with better living conditions”. Pavement dwellers, as almost all squatters, are not experiencing acceptable conditions in terms of official standards. The fact is that very few squatters actually consider these standards as acceptable for themselves either. Thinking that they do is locating them in a kind of sub-class of citizens, and sometimes in a sub-human category. Even well-intentioned assertions convey this image:

"On a human point of view, we are not allow to affirm that favelas are adapted to the life of creatures". (Jornal do Brazil, in Drummond 81, p. 100).

A simple observation of the kind of living that these people are ready to accept in order to stay where they are should demonstrate that whatever the reasons they have for living there, they must be prevailing on any other. The two next sections will present two attempts for relocation, one in a developing country (Brazil), the other one in a developed one (France). The comparison will lead us to the following conclusion: the problems encountered in relocation areas are not related to financial questions, but from the superimposition of a state control on disrupted collectivities which do not have anymore internal control mechanisms.

Conjuntos
4-46: Brazilian conjuntos have been in the past decades the official relocation settlements for favelados. They are located so far from the city center that they become real ghettos for low-income people. Transportation costs become prohibitive as compared to the income. Not only does the relocation in these buildings disrupt links established in the favela, they also pre-
vent any communication between the poorest and the well-off part of the city. They thus record social differences in the land through geographical separation. This isolation of social classes from each other results in an increased power for the state which imposed them. The final result, mass-housing projects plagued by vandalism, lack of maintenance and criminality is literally the passage from the “slums of hope” to the “slums of despair”. Abrams’ “self-fulfilling prophecy” (Abrams 1964) finds an illustration here: relocation in conjuntos puts people in the socio-economic category in which they have been classified from the beginning. Coleman’s theories can then be called into service: nowhere will they be more appropriated, especially in an ideological point of view. But that is not the bottom line of it.

4-47: The recourse to state coercive bodies (police, army) when destroying a slum or to maintain social peace in relocation areas shows that social order is so important an issue that it might be achieved through methods which are hardly legal. Descartes quotation of par. 1-14 is still valid here. *Ordem y Progresso*: Order and Progress, the Brazilian national device assimilates progress to NBP, and thus the whole society -and not only the city - to a productive device. This is obviously true of many capitalist countries. The social project implied in these interventions is the preservation of a highly differentiated society, where social classes can be manipulated independently, and where squatters are only considered as cheap labor - *taillables et corvésables à merci* - taxable and exploit-able at will.

4-48: It can be argued that relocation projects in developing countries do not work because of financial problems. An argument in that respect comes from pilot projects. These government-funded experimen-tal settlements consist in the provision of a few hundreds houses, either in the form of sites-and-services, core houses, supports... If the experience works, then subventions are provided for large-scale realizations on the same scheme. Considered by administrations as a good advertising investment, they imply the construction of a few hundred dwellings at most. All means are taken for their proper functioning. Multi-disciplinary teams are hired to record the performance of the housing, and to solve to the best whichever problem encountered by the inhabitants. This way of doing does not necessarily solve the issue of community disruption, as we will see later. For the moment, the issues of replicability and scale are the interesting points. The amount of money invested in the pilot project is so important that it becomes unrealistic to generalize the process at a larger scale. Maintenance costs become prohibitive. Developing countries simply do not have the means to fulfill their own needs in housing. What happens then in developed countries? Is it possible, when money is not a critical issue, to achieve satisfying relocations? The work of the French ethnologist Colette Pétonnet demonstrates that the question is irrelevant: when the state deals with communities, money is not the major issue.

**Bidonvilles**

4-49: Colette Pétonnet has been studying extensively slums around the city of Paris, and the successive solutions brought by official authorities to problems arising in relocation cities. France can be considered as a wealthy country; these attempts required substantial amounts of money. Pétonnet’s study attributes the decision to build low-income housing in France to “the fear (from all layers of society) that a threat can arise from human concentrations and in the dangerous “pockets” which would expand on bare pieces of land”. This assertion, based on field study, supports
parts of Sennett’s argument, at least the idea of a society which “fears the unknown and the unexpected”. Slum populations, made from workers and migrants of all origins, where relocated in the first low-income housing projects - the first HLM’s. As usual, these places where plagued with what was considered as the symptoms of the “asociality” of a population. “These people do not know how to dwell. Should we really put them in new and clean apartments?” Moral concerns led to the invention of a new type of housing: the transit cities. A central file of inadequately housed people would dispatch individuals in these places where they would “learn how to dwell” before to be relocated again in HLM. In these four-floors (to avoid elevator costs) blocks, inhabitants where living in a temporary situation, watched by a manager who was in charge of signaling “wrong behaviors”. In each city, a social worket was in residence. Her role was “to fix problems and to propose promotions to HLM housing”. These projects never fulfilled their roles. Rent increases in HLM’s, superior quality of housing in transit cities as compared to old low-income projects, acted together to maintain people in them. A new type of transit city was then designed, with an “improved equipment”. The idea of “learning migrants and poor how to dwell” arose again. “Housing projects meant for temporary dwelling of families, with a precarious tenure status, whose access to definitive habitat cannot be imagined without a socio-educative action meant to facilitate their social insertion and their promotion” (Ministerial letter, April 19, 1972). A percentage of the total surface (called “social square meters”) was attributed to collective rooms for socio-educative action. “For reasons of safety, the educative action will be maintained after the stay in transit city.”

4-50: Péttonnet then compares the spatial organization the bidonvilles and the relocation dwellings. The advantages of the former in terms of collective life are presented through sketches and interviews of inhabitants.

“The cities, new or old, flatten all characteristic reliefs of human groups. In their old settlements, people were located according to complex relationships of hierarchy, complementarity, domination or dependency which are suddenly disrupted.” (Péttonnet 1983, p. 147)

The flexibility allowed both by the materials and by the absence of administrative norms is a major characteristic of the bidonvilles, were many ethnic groups are living together. Departures and arrivals are common. The possibility for people to establish a collective life in such conditions requires a particular and flexible structure of space, able to quickly respond to social changes, to maintain cohesion among each group, and to allow contacts between the different ethnics. The will to establish a collective life in the settlement at large is asserted by the study of a bidonville at Vitry-sur-Seine, east of Paris. The groups do not constitute specific clusters inside the settlement, but are completely intermixed. Networks of privileged relations are established between the different members of a group; their spatial separation however forces their members to go through all the settlement to visit parents or friends. Each group thus covers the whole space through the moves of its members, and there is at least frequent visual contact among all the members of the collectivity. The possibility to control intruders become then a consequence of this connection between space, human groups and individuals. Not conceived as an end in itself, and thus not used from the departure as a criteria of design, control does not impose its design to the structure of space.
4-51: When squatters are relocated, their wills and desires are not considered as valid criteria for the location of the new dwelling. Possibility of access to more expensive dwellings, social promotion deserved through good behavior, arbitrary state decisions influence the attribution process. The consequences at the level of the collectivity are dreadful:

"The artificial regrouping is now in the impossibility of recreating an equilibrium, ruined in advance, in this petrified human landscape where even internal moves, apartments exchanges, are not (or seldom) authorized. A few arrivals and departures imposed by the administration create illusion but the city is actually-condemned to immobility since natural moves are stopped. Only voluntary departures (hardly possible) replaced by selection of newcomers by inhabitants would allow free and loose adhesion to micro-groups recreated through affinities, and thus less neutral relations in an equilibrium reached for a time. At the opposite of this, one attends to a cristallization of the population maintained in an arbitrary order which is impossible to adjust, open to conflicts which mobility cannot solve anymore. By qualifying these cities as "rotten", the popular voice makes a crudest allusion, by an anatomic analogy, to a circulation stop which threatens the vitality of the community". (Pétonnet 83, p.145).

4-52: Just like sites-and-services, conjuntos and resettlement colonies, transit cities are officially based on good intentions. All were introduced as substitutes for previous attempts in housing or relocating low-income people. In all cases, they mean a direct insertion in normative and administrative systems. Levels of control are either facilitated or directly introduced. The main difference between a poor and a wealthy state is the possibility for the latter to implement educational strategies to insert people in the main social frame. The reasoning is the following: if what is considered as proper housing is not enough to decrease criminality, vandalism and lack of maintenance, the state will curet the problem at the level of the people. Once disorder is removed from the structures of space, it has to disappear from the structures of mind. Then the environment will actually translate the society which created it; the production system will reach maximal efficiency.
6 - Order And Its Representations.

4-53: Production optimization requires and implies social order: nothing new in that. Because of its importance in the corresponding ideological frame, order has become an independent entity, something which is reified and defined as a concept in itself. As soon an entity -as vague as it can be- is given a name, it begins to concretize. This concretization is a social construct, and the image which is finally created is much more the translation of a system of values than of some absolute Platonic reality. Our images of order are both defined and personalized by representatives of order.

Police or military exercises, a beautiful grid layout, an office building of the last decades: order is for us a close kin of rigidity. This is an extremely limited view of it. The three pictures above show three aspects of a same order. All of them are generated by an extremely simple internal process. The results are rich and complex. But there are infinite ways to define and to create order. An ordered image does not necessarily represent the result of an inherent ordering process.

4-54: As opposed to this picture, the superimposition of a grid over a collective spatial order is an externally imported process. From here on, I will use the terms "grid" and "gridding" in a broadened way. It represents any ordering process calling for a repetitive geometrical order, be it based on circles, squares, rectangles, hexagons and so on. It embeds in its meshes a reality which it has the purpose of mastering, first for cognitive purposes - no harm in that; then for creative aims - and then problems begin. The fact to use an analytic device to create a new object means that this object will be totally transparent at the light of this device. The transformation of a squatter settlement through an external ordering process has as a consequence the possibility to control its spatial determination, and thus to impose over it an order whose objectives and interests do not represent any internal will.

As we have seen in the sections about conjuntos and bidonvilles, most of the time, the explicit purposes stated by order makers do not work: what they achieve is merely a representation of the kind of order they would like to impose not only to the environment, but also to the collectivity. This implicit purpose remains valid in any case.
4-55: The aerial photograph on pict. 4-9 is a blatant illustration of Gaudin's "moral of separation": between each of these square cells and Bentham's pan-opticon prison (Foucault 1975, p. 197 & seq), the difference is small. This is a sites-and-services project in Kariobangi, Kenya. This kind of project, developed with the official intention to maximize the access to housing for the poorest, provide people only with a plot and some basic services. They can build their houses progressively, and thus spread the cost in time. The intention is valuable. The results are not. First, sites-and-services do not reach the poorest of the poor. Second, they are a real bargain for middle-income people. Last but not least, the design of the layout is governed only by optimization criteria. Despite of its monotonous aspect, this space structure is everything but neutral: it is the representation of an order where individuals are horizontally disconnected. Of course, no one will prevent them to gather, to develop internal organizations which have the potential to discuss and counterfight state decisions: "people" is actually "individuals" with different wills, desires, potentialities; they cannot be controlled uniquely by this kind of a spatial structure. This is an example of a represented order, which does not have as such the potential to impose -as would do a real jail, for instance- certain behaviors upon people. Nonetheless, there is a world of difference between a social life which happens despite the organization of space, and one which is supported by it. More, the possibilities of controlling any event which contradicts the interests or even the power of the state is greatly facilitated here, both by the possibility of locating separately each individual, and by the easy access to any house. This layout is not only the statement of a "no-trouble" policy: it is also the mark of "in-case-of" attitude. The metaphor of the city as a machine is coupled to state interest and desire for a power-transparent society (Foucault 75, chapt. III, p.

4-56: One of the real issues with this representation is its normalizing influence. Since it comes from authorities which have a normative power, it gives a reference to determine what is normal and what is deviant in a certain context, in terms of urban planning. This particular image of a city is thus integrated as a cultural value, and then reproduced as a symbol of modernity and progress. The implementation of a grid layout comes to appear naturally as what should be done -what is good for the generation of welfare: welfare societies -which are assimilated to modern ones- are planned on grids. Parallel to this process is the devaluation of traditional values: the richness and subtlety of local settlements are confused with mere disorder. As
seen above (par. 4-53), no disorder can be qualified as such before it has been demonstrated to be disconnected from any organizational process. Where order visually appears, it does exist; where it does not appear, nothing can be said - but one can still look for it.*

4-57: The cultural relativity of the notion of order, and in particular its limitation to Cartesian structures of space, becomes then a critical point. The non-understanding of the order underlying a system leads to its assimilation to chaos. But in fact:

"Underneath the apparent "chaos" is a highly sophisticated "order" whose rules have gradually become unconscious, and its norms completely internalised. In our time, when the common languages and the processes that support them have broken down, urban planning has been reduced to a technical exercise that is monocultural and deterministic. A new order, that of control, has replaced the traditional one". (Kapur 1988).

A complex environment is not seen expressing disorder, but as the translation of a complex order. The look for these "unconscious" rules has been the object of most ethnological studies. It seems however that a single order, as sophisticated as it can be, is not enough to give a proper account of the complexity of a traditional place. Interpretation of social networks and of the "relations between man and a given environment" reveals multiple ordering processes, at work in all possible spaces -institutional, technical, economical, symbolical, societal and so on, which deal, interact and clash with each others. Their interferences become themselves parts of the environment, both by their mere occurrence and by the way people develop strategies to deal with them. If an unique order was responsible for the complexity of a society, then it would be possible to reconstitute a similar society just by recreating this order. Even if there was any determinism in the separate ordering processes -provided they can actually be separated-, their simultaneous evolution and the impossibility to control the evolution of their interferences prevent any prediction on the behavior of the whole.*

4-58: In the same way that, in par. 4-56 above, the representation of order is described as more efficient than the order it represents, the appearance of disorder becomes a major point in dismissing traditional and squatter environments. Ordering is more the prevention of disorder than an aim in itself. It would be wrong however to suppose that any squatter environment possesses a high level of order. Organizations, social and physical coherence, can take years to appear. Settlements where disrupted communities live, recent

* This is due to a mathematical effect, nicely called "butterfly effect". It has been discovered by meteorologists in the past decades. Theoretically, we should be able to know the weather one year in advance; the equations now exist. But this would require to know all the events which influence weather- including the flight of a butterfly, anywhere on the earth. It is no fiction: computer simulations show that air turbulences caused by insects can be the cause of a hurricane - not one day or one week, but many months later. And even if we were aware of all these microscale events, we would have to know them with an infinite precision; and no computers would be able to deal with such numbers. The same problem appears in many domains of physics: uncontrollable, infinitesimal discrepancies accumulate to modify the evolution of huge physical systems in unpredictable ways. Needless to say, according to this, the study of human beings with mathematical concepts appears as a complete illusion in what concern predictions of behavior. Coupling only two simple ordered physical systems can already generate chaotic behaviors. The number and the complexity of orders present in human societies prevent, fortunately, successful predictions for their collective behavior.
slums with a heterogeneous population, can correspond dreadfully with the images transmitted by the mass-media. But even in those cases, ordering processes are already going on. Because of the harshness of living conditions, through struggles against authorities for instance, one witnesses the apparition of collective organizations. They act as regrouping bodies, catalysts of a collective life, and enforcers (implicit or not) of common agreements making community life possible. The role of illegal organizations - slumlords or local mafias - would be worth to investigate in this respect* (see Lapierre 1985).

4-59: Apart from this distinction between orders and their representations, there is also a hierarchy in disorder: disorder can be fertile or sterile. The disorder which is observed in young or unevolved squatter settlements is pregnant of a future. Embryonic structures can already be detected in it (see Pict. 2-21). They concern as well the physical environment as the social structures: the evolution of the first cannot be disconnected from the complexification of the second. Old squatter settlements like La Rocinha in Rio (Drummond, 1981) or Kibera in Nairobi (Reeves, 1988) are highly structured. From an early disorder, social and spatial organization grow in parallel ways. But the final result is still disorder to officials. The hiding of Lagos' slums behind wooden fences to avoid Elizabeth II's royal eyes of to be offended by landscapes of squalor was a cynical statement of this ignorance.

4-60: Let's go back to a relocation project like conjuntos or transit cities. The aspect of these environments is the representation of a rigid order (Pict. 4-10). Social structures do not exist anymore. The random attribution of dwellings disrupt patterns of relations established in the settlement. Relocation from the original place destroys all established connections between squatters and the rest of the city, isolating them in low-category ghettos. From the point of view of the state, the situation is advantageous: instead of dealing with a collectivity, it now controls separate individuals. Instead of having to deal with disorderly patches of slum close to the city center, it establishes military agencements of buildings located in the middle of nowhere. Trouble can arise there as long as it remains confined among the ghetto members - and far from the city. This is a real state order: from a monodimensional view of a society, taking the narrowest interpretation of the idea of control, it puts in practice ordering processes for the sake of the social peace necessary to its own objectives. If we now take the position of the relocated collectivity, this corresponds to an event of a rare violence. The order imposed by the state is achieved at the expense of the disintegration of whole communities. The collectivity has become amorphous. The only structure is the rigid frame imposed by

* Moral issues are not at stake here. Would they be, a market exchange society would not be the right authority to give lessons on the topic: its moral is derived from its interests.
external state process: people are deprived of the responsibility of social control. In the meshes of the frame lie the human particles of a disintegrated community, controlled only by outside coercion. If there is no collectivity, there is no collective responsibility, and then no inherent control. Externally structured, the human group is unable to organize itself. Depending on alien structures for its social cohesion, it is similar to a patient in a terminal phase artificially supported by an iron lung.

4-61: Now, if the order imposed on the collectivity is real for the state, it corresponds to the largest possible state of disorder for the collectivity. This conversion of a highly structured environment into separate crumbs is similar to the crushing of a complex building like a cathedral into a bunch of stones, which are then placed in small individual boxes and piled over each other. The difference is that here, the loss is definitive: there is no plan and no method to create a collectivity. From this new state of disorder, nothing can arise anymore - not only because nothing is allowed to do so, but also because all structuring processes are extinguished. From a fruitful mess to a dead disorder, from a slum of hope to a slum of despair, this kind of state intervention corresponds both to a degenerescence and to a degradation of all the potentialities existing in the settlement. For the state, the possible consequences in terms of delinquency at the level of the individual are counterbalanced by the increased possibilities to control the whole. The interests of the state and the interests of the society it governs are two different issues (see in particular Clastres 1974, Introduction and Conclusion; Deleuze and Guattari 1980, chap. XII: “Treatise on nomadology: the war machine”.)

4-62: The order of the state is strongly material, but it remain nonetheless a mere representation. The first reason for this is the importance of the number of people involved. Rule enforcement at such a scale cannot be afforded by most developing countries. Criminality problems are the first indication of these failures. The second reason is that even if a government had the resources to do so, and unless the coercion system is similar to that of a concentration camp, experience in developed countries shows the illusory aspect of such attempts. Before ending this chapter, I would like to apply the following paragraph by Michel Foucault, to relocation settlements, to geometrical market-exchange cities and to most sites-and-services projects:

“The principle of “enclosure” is neither constant, neither indispensable, neither sufficient in disciplinary apparatuses. These shape the space in a much subler and softer way, and first according to the principle of elementary location or “gridding”. To each individual, its own place; and in every place, an individual. Avoid distributions in groups; decompose collective implantations; analyze hazy, confusing, massive or undefinable pluralities. One most neutralize the effects of imprecise repartitions, the uncontrolled disappearance of individuals, their blurred circulations, their needless and dangerous coagulations ... Discipline organizes an analytic space.”

(Foucault 75, p. 144-145).
Conclusion

4-63: If the statement that the squatter settlement is a direct consequence of the invasion of a country by the market exchange system, the same can be said about the official city. The space of the city is structured by the values imported along with the invasion of the global metropolitanism. In this structure, the location of the squatter settlements can be predicted. However, the internal spaces of most settlements, and in particular of those which are not yet vascularized by the economic channels of the market exchange, are structured in totally different ways. Closer to traditional environments -from which, as we will see in the next chapter, they depart in a number of points-, following ordering systems which are themselves governed by inner mechanisms, they are at the opposite extreme of the interests of the state and of the city: authorities favor an environment whose structure facilitates state control, and conveys an image of efficiency in terms of production. In opposition to the structures of the official city, these internal orders are not governed by the ideology imported with the market exchange. The asphalt city heads towards a fixed and predictable future, inserting itself more and more into the ramifications of the global metropolitanism, being more and more shaped by western cultural values. Squatter settlements appear as areas where an alternative to this evolution can develop - precisely because of their unpredictability, and by their location out of the main ideological stream. By the fact that they are not anymore temporary, by their rapid evolution, through the cultural traditional images and values that they import into the city, they represent a unique chance for local -and even national- populations to develop an urbanism on their own. This is not to be generalized to any case: for instance, Kibera in Nairobi shows that a settlement can be as controlled by market exchange as any occidental city. The role of the architect in evaluating squatter settlements in that respect will be discussed in the last conclusive chapter.

4-64: From the sequence of photographs which opened this chapter, we have reached successively many different fields. The first analytical separation in three lines (geometry, memory, meaning) now appears as just a mean of reaching a territory where they wander, interfere and interconnect in many different ways, all supported by the fundamental issue of control. From this territory, a certain autonomy of thought seems to be allowed. Credible connections can be established. An important point: by its mode of production, by its role in the city, by its connections with global metropolitanism, the settlement can hardly be assimilated to a traditional environment, as mentioned by many authors (Burnham 88). Some of its characteristics do recall rural areas; but the settlement itself cannot be considered as such. Its specific status in that respect will be discussed in the next chapter. Other points: the definition of a layout is much more than a mere geometrical process. Preservation of memories cannot be logically validated as an objective in itself, but should come as a consequence of a particular way of thinking. Industrial techniques are not just a neutral tool for the implementation of infrastructure. And so on...

4-65: Behind their visual differences, the two sides of the photograph relate to two different worlds. They relate mainly in economical terms - for instance through the finest ramifications of the global metropolitanism. If, economically speaking, they are two parts
of a same whole, they nonetheless represent two different systems of thought. They differ by their patterns of growth, their controlling systems, their power relations. One deals with the future by freezing it, the other by constantly adapting to it - by becoming whatever the future brings. One deals with the past either by erasing it or by mummifying it, the other by incorporating it into its present life. One tries to force collective structures into its normalized spatial configurations, the other allows a continuous dialogue between space and people. Maybe the striae of the first will one day reach all the aspects of the second. What will then remain from it will be the petrified picture of an alternative way to live and to create the city, a world whose constant process of transformation was not considered a pathological problem. Like the hands broken watch, it will indicate the freezing in time of an evolution always oriented towards a becoming. If its spatial structure is preserved, the squatter past of the neighborhood will be readable from its present. Many squatter settlements have already experienced this evolution. Many others will do in the future. The explicit aspirations of the squatters, as shown by many surveys (including Drummond’s, Peattie’s, Lapierre...) is precisely the incorporation to the official system. Is this, according to the actual circumstances, the best thing which can happen to them? I will not try to answer to that slippery question. I will just suggest the reader to have one more quick look at the photographic sequence. Then, to briefly remind the issues introduced in this chapter, connecting them to what s/he is looking at, and to the upgrading processes going on all around the developing world. If I have been clear enough, the following conclusion will appear obvious: the squatter settlement of today is a future memory for the city of tomorrow.

*Allochi, 1982; but this is certainly one of the most common comments in squatter literature.
Chapter V

Conclusive Territories
The structure of this chapter will differ from the first four. Its sections do not ask for a linear reading. There is no hierarchy in the conclusions. They arise all together from the other chapters - something like a river which separates into a delta before reaching the sea. According to this structure, the paragraphs will not be numbered.

To open it, the conclusions reached up to now through the different case studies and authors' works will be summarized in a series of captions. From these, the conclusions of this thesis will be presented. Very few new references will be introduced. Grounded on the territories explored along the other four, this whole chapter is to be considered as an independent essay. Most of the ideas presented in it come from personal reflections. Some of them will present similarities with conclusions reached by different authors. This does not necessarily mean that I agree with them in all respects: the way to reach a conclusion, and what is to be done with it, is intimately related to the path which was taken to reach it.

The image which appears does not escape a certain degree of generalization. A distinction must be made, however, between the squatter phenomenon on one hand, and squatter settlements as independent entities on the other. In the third chapter, we have seen that a given settlement can present a strong degree of specificity - I even used the word "personality". If required, intervention in a particular settlement has to consider its local features, its particular evolution. Sections 2 and 3 on the fourth chapter considered squatter settlements as a global phenomenon, unified consequence of a unifying development process; but in the same way that the word "urbanization" does not give any information on a particular city, the expression "squatter phenomenon" does not define in any way the local aspect of the settlement.

The captions are presented in the second section. They will be used either separately or in groups to reach a series of conclusions, which constitute the third section ("Conclusive Territories"), and followed by a short ending section about the making of a place.
1 - Conclusive Captions

a) - If any model can be abstracted from a settlement, it is the model of a becoming. As opposed to a planned city, which creates for itself the image it will then use as an objective to be reached by controlling all possible disturbances, the settlement is not constructed with a pre-defined intention. Unpredicted events are not treated as interferences in an ideal stream. They are part of the normal process leading to the formation of the whole.

b) - The will on the part of the state to order squatter settlements comes on one hand from the necessity for the market-exchange city to optimize its production, and thus to create environments whose evolution is predictable; on the other hand, it arises from the potential threat represented by areas where control is made impossible because of social and spatial characteristics, and in which some of the most exploited populations on earth are living. To create order is not as important as to prevent or remove disorder.

c) - The original role of the slum is the provision of a transition dwelling for the arrival and the adaptation to the city. The need for a "socio-educative" action asserted by French authorities is illustrative of a state authority which is unable to value this aspect, and which replaces it by an official process of ideological education.

d) - The model of the modern city and the images of progress which are presented to squatter communities by development processes lead local populations to disregard traditional environments. This phenomenon also occurs in occidental countries, where industrialized modern houses are often preferred by rural populations to old traditional ones. Planned invasions by squatters often result in straightforward grid patterns, mimesis of a city center layout. Underlying this is the idea that the city will be more willing to bring services if their implementation is made easy by a proper physical space. Even before the installation of infrastructure, technology already masters the structure of space.

e) - The origins of the squatters are multiple. The collectivity is cosmopolitan. The concentration of different ethnic groups on a same area creates a similar concentration of traditions and cultures. To allow each group to create its socio-cultural space, the squatter settlement is by far more appropriate than a relocation area where dwellings are attributed by state criteria.

f) - The distinction between squatter settlements and city is mainly a spatial one, but not necessarily. The separation in terms of geographic limits is valid in many cases, like in South American cities, but remains hazy in many others. In India for instance, a city like Delhi presents all degrees of gradation between traditional, informal, spontaneous and squatter settlements. Each of them present various degrees of evolution, which blurs the limits between the different categories.

g) - The system of values with which occidental-educated planners and architects actually work con-
Chapter V - Conclusive Territories

siders the criteria of "production" and "efficiency" as almost axiomatic. Perfect geometries, logical validation of design processes, issues of control, quality judgements, are confused in a desperate amalgam. They can be extracted only by a closer look at environments located out of our ideological sphere.

h) - If the order of a planned city is real for the state, it is only an oversimplified simulacre when compared to ordering mechanisms created by collectivities in charge of their own control. The level of control required by optimization criteria requires a separation, a proper functioning and a coordination of the different parts: the metaphor of the "city as a machine" as well as Foucault's "analytical space" find their place here. Allowing horizontal interactions between the parts is opening the door to the creation of subsystems, which are likely to become hard to control, and to interfere with the functioning of the whole.

i) - Control processes from the part of the state cannot prevent criminality even in wealthy countries. Disrupted communities do not have proper control mechanisms, and give up the responsibility of discipline to the profit of state coercion. Both in developed and developing countries, they are unable to develop them from inside.

j) - The freezing of the moving patterns of the settlement occurs when it enters the official urban realm. The spatial configuration of the resulting pattern is strongly influenced by the moment of its occurrence.

k) - Asserting the qualities of squatter settlement and arguing for their preservation is not a legitimation of the development processes which led to their appearance. It is rather an acknowledgement of the role they can play in countering the influence of the market exchange ideology over the official city.
2 - Conclusive Territories

Because of their cosmopolitan aspect, because of their transitional nature in terms of people and society, because of the squatters' objectives and desires to be part of the official city, because of their deep connections with a global process of modernization/industrialization, squatter settlements can by no way be considered as traditional environments. Even if some rural features appear in them, in terms of use of space, of ways of living - "kind of life", to use Amos Rappoport's expression (Rappoport 1969) or physical elements, their meaning, the mode of production through which they are built, their status in squatters' term, cannot be connected to a pre-industrial way of dwelling. Let's look at this more in detail.

The squatter settlement is likely to dwell people from extremely different origins, either from different areas of a same country, or from different countries. It might begin with a "core" group which proceeds to the first invasion; but changes occur quickly, and the ensuing mix of population results itself in a corresponding mix of cultures, values, and of uses of space. The strategies developed by the different ethnic groups in order to be able to live together are at the origin of the creation of a collective order. When an equilibrium is reached, particular socio-spatial characteristics appear. Specific to each settlement, this order takes time to stabilize; the flexibility of the squatter settlement, both in terms of construction and of norms, is in this respect a major advantage. The nature of collective practices is however related the scale of the settlement. Drummond (Drummond 1981) shows that in a huge favela like La Rocinha, the whole population does not in daily life behave like a collective entity. Collective behaviors are found at the levels of what he calls "clusters" and "neighborhoods" at a lesser degree, defining a pattern of relations between the uses of space and the social structures. In the same way, Dharavi in Bombay had in the summer of 1987 no less than fourteen local organizations, making the whole settlement looking like an agglomeration of smaller ones (India Today, June 1987).

The will of the squatters to live in an official urban neighborhood is demonstrated by a number of elements. The settlement is looking towards the future, and this future for it is the "asphalt city". But as long as it does not have the means (either financial, legal or administrative) to undertake this task, it will continue its piece-by-piece evolution, its navigation into the smooth space left between the striae of official structures. Considered as amorphous areas by the official authorities, which do not have the capacities to detect their organization, their life imply particular and ephemeral orders which originates from the squatters' country, from the existing characteristics of the settlement's location, from the harsh urban circumstances in which they do evolve.

Let's now consider the following points:

a) - The squatter settlement of today originates from the extension of global metropolitanism, which is also responsible for the particular mode of urbanization going on in most of developing countries: the westernized city and the squatter settlements are two outcomes of a same process.
b) - The temporary aspect of squatter settlements is now illusory in most of the cases. Most of them will be upgraded to give birth to official neighborhoods. This evolution finds its motivations in the will of the squatters to become citizens, from the economic relationships between squatters and cities, and from the will from the city's part to prevent or remove disorder.

c) - The elements and practices imported by the squatters from rural areas are demotivated in the settlement: their meaning and their uses are transformed by urban constraints ("Farm houses impossibly compressed against a very steep slope"). The same appears in collective behaviors: local organizations structuring collective life find their origins mainly in the necessity to resist official administrations or to get support and services from them. Illegal or exploitive structures (slumlords, usurious landlordship) are much closer to a modern urban way of life than from a traditional one.

All these characteristics prevent any straightforward assimilation of squatter settlements to traditional environments. Both from inside and from outside, they present fundamental differences. As we have seen in chapt. IV, many authors have been trying to insert them in some hybrid categories ("modern traditional", "urban rural"...). It actually appears that they do constitute places which are not classifiable in these terms. Any precise definition would have to include their fast evolution, their transitional characteristics, the paradox of their semi-nomadic and at the same time no-more-temporary aspects. Squatter settlements constitute a particularly characteristic phenomenon of the second part of the XXe century. Even if analogies with rural environments can be made for purposes of analysis, they cannot be evaluated in the same terms. Entering them in a "traditional" category would lead to the same kind of representation than Phisuthikul and Oha-

On the future of the city

Predictive theories on the future of the city presents us with a model to be achieved. As an uncontrollable environment, the squatter settlement is the only place in the official city which escapes all predictive attempts. Legal and administrative norms not only ensure that the future will be to a high degree conform to the prediction, they also limit drastically the possibilities of experience. In terms of built form, the notion of "design methodology" is an illustration of this: even creation, already limited by norms and conventions, has to follow a method. The solution field for the final design is bounded. The creation space of the designer is striated. In this respect, squatter settlements can be regarded positively. Even if they have their own processes of legitimation and their proper norms, they differ from settlement to settlement, according to their respective population and organization. Because of this, each settlement has the potential to develop unexpected structures of space, unusual categories. Daulat Nagar is revelatory in that sense, through the relativization of the dichotomy "inside/outside", through what I called the "impossible houses",...
through the replacement of the concept of "privacy" by "intimacy". Nothing ensures however that these elements will reappear in the settlement next door. It is more likely that different features will be found, impossible to realize inside the administrative sphere.

What can we learn from that? "Space tricks", "ruled topologies", finely textured environments, architectures of the minuscule, can only be detected by an adequate method of observation. They exist in Daulat Nagar as in Klong Toey, in La Rocinha as in Indore, in Bogota as in Calcutta - but they exist only for the observer who has the proper tools to see them. The analogy with Peattie's work is worth making: as an anthropologist, she observes what economists would call "infinitesimal exchanges" during her fieldwork. She assumes that they will give a more adequate representation of the economic patterns than a wide-scale overview relying on a general theory of economics. In the same way, these individual grains of space use, these "atoms of environment", can provide architects with a representation of the settlement which is far more accurate than what a planner working with global categories will achieve.

On what the settlement can teach us

The main difficulty however lies in what these elements can bring to architectural design. By their location out of any legal or administrative norms, most of them just cannot be used as such for an official project. As Gaudin says: none of the cities you like would be acceptable in regard of today's administrations. To use them, we would have to submit them to a legalizing treatment, with all the risks that implies in terms of denaturation, demotivation and high-culturization. But they are revelatory in another sense. For planners, a minimal budget corresponds to a minimal solution. Squatters, with a budget inferior to what any planner has to manage, create an infinite variety of places. By showing us spatial configurations which we can hardly consider or even imagine, they state blatantly the extent to which what we call our "imagination" is in fact shaped by the ideology in which we are living. Power produces knowledge; knowledge define values. In order to legitimize the existence of power, ideology generates the values we then consider as ours. What we know from any concept is what we use to evaluate it. Located out of both the very fact of their illegality, deploying treasures of ingeniousness to maximize the use of the scarce space which is available to them, squatted environments demonstrates that what we think we can do represents an minute part of all the "possibles": their architecture of the unexpected is nowadays one of the main opportunities for the city to escape the dreadful image of a determined future.

On the use of perfect geometries

Many example of regular layouts can be found in historical and ethnological studies. The grid is an archetypal model, from the menhirs arrays in Carnac to the imperial city in Pekin, from Dogon cosmologies to Roman military camps, from Jefferson's planning in Savannah* (next page) to the park of La Villette by Tschumi. However, in pre-industrial times, these geometries were used for a variety of causes, translating multiple varieties and stratified layers of meaning. How is the geometry produced? What does it represent for the collectivity and for the different levels of power? Does it control, or is it controlled by the community? Does it achieve a Cartesian perfection or does it follow approximate patterns? In each case, these questions have to be asked before evaluating the resulting environment. The geometries which are imposed today over the developing world are, to use
Choay’s expression, monosemic (Choay 1979). Their generalization, the universal and indifferent space they establish over any environment, is both the space of the rationalized market exchange economy and of the occidental ideology. The issue of referential models is directly connected to this. The city of wealth, the city of welfare, is for the developing world a western model. For the squatter who wants to be part of the official town as fast as possible, the replica of a geometrical layout is a statement of his expectations of a wealthy future. For the city which disrupts a settlement to rebuild it according to its own layout, it is the imposition of the level of control required for its own purposes.

**On the evaluation of squatter settlements**

The evaluation of a squatter settlement cannot be done along a single line within an occidental frame of analysis. Not only that, but even the question seems to contains inherent contradictions. The reasons of its birth, its process of apparition, its mode of evolution, its stabilization and its consolidation are five different issues. To value its specific characteristics, to say that it can appear only in these particular circumstances, can be taken as an approval of the conditions from which it was born, and thus of the causes of its birth - that is, approving an economical system which creates conditions of subminimal standards of living for entire cities, and exploits whole populations at an unprecedented scale, to an unprecedented degree. Over this first layer of meaning is the process of birth. Fascinated by the creation of entire new urban areas, in front of our lives and in short time scales, we should not forget the underlying events having led to this process. My answer to this appears in the conclusion of the fourth chapter. But there is one more point. The way this architecture evolves, its deals with the existing environment, its spatial structures and its relation with the collectivity it dwells, are not only incompatible but also opposed to any design process governed by the market exchange ideology. In this way can the settlement be validated. By all these characteristics first, and by the difficulties it create for the managing of the official city second, it can be considered as a statement of resistance to the invasion of the occidental ideology, and to the unifying mode of planning brought along with it.

**On the ethics of upgrading**

Upgrading corresponds to a reinsertion in the dominant framework. It means on one hand the end of the blossoming of these unexpected architectures. Not
that the resulting environment will necessarily remain static; but the constraints brought by the new norms will necessarily limit further modifications. All the characteristics which depend on the semi-nomadic and transitional nature of the place will be lost the same way. But the richness of the collective spaces, the fine textures, the accreted strata of memory, the spatial adventures of innumerable deals between squatters, land and matter, all these inscriptions which record nothing less than the creation of entirely new places will remain. They will be inherited by the "asphalt city" as long it is able to see them as such. Obviously, their use and their value will differ; obviously, the new life to which they will be brought presents many risks, illustrated by the actual state of near-gentrification of the oldest favelas in Rio. Upgrading the settlement means to bring its inherent qualities to an ideology which is no more able to produce them.

Under this idea of upgrading slums for the sake of the official city, an insidious idea lies rampant: squatter settlements might appear as a solution for the problems encountered by architects which designing collective environments. The whole process can take a very cynical connotation: it suggests the possibility to use squatters populations in order to create, at extremely low costs, areas which will later become among the nicest parts of the city - after a population transfusion involving the departure of the original one - an unusual kind of alienation. Like construction workers building physical structures for other people to use, squatters will be seen as the laborers whose production is a the space of collective life - for a different population. Not that both will be fit to each other; but, as an informatician living in an old rural farm, the new population will use these spaces for practices which are not anymore connected to the collectivity which inhabits them.

On the issue of expertise

Upgrading opens all the questions related to expertise, populism, paternalism. The respect of the aspirations of the squatters is certainly a valuable concern from an architect's part. If the majority in a given settlement is in favor of a legalization process which implies a complete redesign of the layout - be it for land-sharing, or just for a proper land redistribution -, the architect will probably have a hard time trying to explain why this is not necessarily the best thing to do. But two points should not be disregarded:

- In many cases, squatters are not at all politically ignorant, and appear quite well informed. For instance, in case of land invasion, operations are organized according to a real strategy: this shows that the squatters are perfectly aware of the powers they are challenging.

- What the collectivity wants is not necessarily what is best for it neither for the outside world - in any terms of reference. Through previous experience, architects might be able to know which solutions are appropriate or not for the people he is working for. Expertise can sometimes avoid irreversible or disruptive situations, either by preventing the destruction of a settlement, or by discovering that another one should be quickly displaced.

This general assertion, which might seem overstated, can be substantiated by many different ways. Archeology reveals the self-destruction of human groups which did not know how to manage their natural resources. Many settlements are real ecological catastrophes. Others are installed on high quality agricultural land. Then, respecting integrally the squatters'
demands is also a political trap: a satisfied population enters a state of dependency towards the prodigal authority. Fitting the offer to the demand is an efficient way to extinguish all social protest. As Lapierre writes: better an exploiter than a Santa Claus. Because of the inherent contradictions of the capitalist system, Marxist theory predicted a quick revolution in the countries governed by it. The arrival of a welfare capitalism was not expected: satisfied people don't protest.

About intervention

Do we betray squatter settlements by upgrading them? This is an almost unsolvable issue. In terms of their squatter nature, it is a tautology to say that the answer is positive. The squatters and the city, on another hand, have a lot to gain in the process - at least in the three following points: for the squatters, access to better standards of dwelling and material security; for the city considered from people's point of view, the enrichment of the environment by an area where structures of space encourage collective life, impregnated with a high level of contextuality; for the official city, possibilities of inserting the area in official schemes of development, and of increasing the housing stock at minimal cost. The answer then heavily relies on the upgrading methodology. The issues of health and sanitation, the necessity of installing services, can hardly be denied. In any case, the following point should apply: if no upgrading process made according to legal norms can avoid the disruption or the mutilation of the collectivity, then the problem lies in the norms themselves and not in the settlement. In the same way that, for servicing a traditional town in a developed country, particular arrangements can be taken, the squatter settlement undertaking legalization should be considered as prevailing on any potentially disruptive norm. No officialization process can preserve integrally its qualities, since some of them come precisely from its non-official status. A process which respects both the spatial structures and the population and which constantly questions issues of control is likely to be far less damaging than an upgrading primarily oriented towards investment returns and development optimization. It could be inspired for instance by Patrick Ged-

Picture 5-1 (left) and 5-2 (right): The notion of "conservative surgery" has been developed by Patrick Geddes around 1915. Picture 5-1 shows a proposal made by engineers for the upgrading of a traditional neighborhood. Geddes' comments on this kind of intervention is basically that engineers, in order to save working time, trace every line parallel to the edge of their drawing table. The notion of conservative surgery is illustrated by Picture 5-2.
des' conservative surgery (Pict. 5-1 and 5-2; Geddes 1947), introduced as early as 1915 both as a criticism of existing planning methods and as a way to create cities which are more enjoyable to live in: Geddes knew how to look at the traditional use of space in India without referring to occidental models. It is not likely however that he would have looked at squatter settlements with the same consideration: illustrations of his projects show the elimination of temporary shacks considered as unaesthetic in the existing townscape. Adapting the method to squatter settlements means a shift in the philosophy which underlies it: its use for traditional environments demonstrates a degree of consideration for the past - though it is not considered as an explicit objective. For squatter settlements, the relation to time becomes fundamental. They have to be preserved not for their past - they have the means to take care of it by themselves - but for their future. And in the same way that a preservation process should not fossilize the past, the future thus preserved should be kept rich of all the possibles.

About relocation

A different but not dissimilar problem occurs with the issue of squatter relocation. Circumstances can necessitate the moving of a whole settlement to a new piece of land. Avoiding the disruption of the community opens two different issues. The first is the selection of the new site. In cases like Daulat Nagar, where the life of the settlement is so intimately connected to the life of the neighborhood, the distance from the old to the new location is a critical factor for the survival of the collectivity. The second is the way by which the new place is created. In the line of this work, planned invasion before the implementation of infrastructure appears as the optimal way to allow the collectivity to reconstitute a life on its own. Basic services can be provided - water point, collective latrines - as long as they do not pre-determine in any way the spatial orders of the settlement. Being in an official location, its structures and its evolution will already be constraint by normative and legal systems, and by the fact that the construction of the houses will from the beginning consider their market value. The old and the new settlements will differ in a number of points, among other things through the fact that the memory of the first has been left forward by the moving. Is it possible, through official processes, to let the new settlement develop its own structures, its own memory, its own collective life, before vascularizing it with the striae of the official city? Are officialization and striation necessarily synonyms? Even if the city could admit the existence of uncontrolled patches on its territory, the squatters themselves, through their will to urban conformity, could be the most important factor for the insertion in the main ideological framework: the road of the boat is also under the passengers' control. But even so, we should not blind ourselves to the distinction between relocation and upgrading: even if a relocated settlement is a candidate for upgrading, the two processes do not necessarily have to occur simultaneously.

About the role of the architect

What is then the task of the architect in this process? First, it can be related to the evaluation of a given settlement. The first chapter discussed the issue of constituting places meant for collectivities, which makes sense and represents aspirations and desires of individuals, groups of people, communities. For this, the tools of the architect are material: volume, void, space, organized in complex hierarchies. Gaudin's philosophy calls for "porous textures of space", for a city whose model would resemble "a curled cabbage,
or a sponge'. With the squatter settlement, this urban form is already there: the "design" achieves a fineness of texture which no architect is able to reach. The same could be said about the layout, if it could be disconnected from the spatial form: with only two dimensions, it already displays a tremendous amount of information, plane projection of an order which looks complex for an individual only because it is a collective one. But there is also a hierarchy in squatter settlements; their respective value is much easier to detect when compared with each other than when evaluated through criteria used for different kinds of environments. What are the orders which control the spatial structure? What information is recorded in it? What techniques are more appropriate for an intervention, given the necessity to preserve elements considered as fundamental? Can we consider that some settlements have to be destroyed, and how can we distinguish our reasons to take such a decision from the interests of official authorities? Seeing the designer's task as the provision of an environment meant for people to live in, the architect can acknowledge certain settlements as a proper response to that task. This involves both a comprehensive knowledge of the global phenomenon, as well as a specific study for each and every local situation. More than a mere designer, architects have also a fundamental role to play as thinkers of the built environment. By no way does this imply forsaking all the design tools which are part of their training; it is rather the addition of new ones, meant for the same objective, and relying on an expansion of the vision of their role.

There is no way by which architects can avoid the task of building new settlements for collectivities. Arguments for relocation or redesign can be impossible to refute. In front of accomplished demolitions, or of the necessity to relocate a population displaced by a natural or man-made catastrophe, we will necessarily face the problem of being an outsider designer involved in the reconstitution of environments capable of supporting the continuing evolution of socio-spatial structures. The first thing to acknowledge in that realm is the shortcomings of our skills in front of such a task, when it is to be done for a community which is not ours. There are black zones in our perception of these worlds; instead of trying to clarify them, with the risk of replacing them by our own vision of what they must be, we should consider them as the loci of unpredictable futures - and value them as such. Instead of being methodological, the approach to design should be that of a research program (Anderson 1987): an exploration which does not have as a purpose the production of a built object by the researcher. It can lead to it in particular circumstances; but the decision not to do anything should never be discarded from the possible solutions. In our thinking, in our vision of the world, on a drafting sheet, leaving blank zones deliberately is a painful process for architects trained to organize space and time according to fixed programs. This point is not to be ignored, but can be dealt with in a particular way which I will present through an image: these empty areas can be contemplated as having the same power, the same promises and the same beauty than a sheet of white paper before the tracing of the first line.

The project presented in Pict. 5-3 and 5-6 comes rather close to this kind of design program. It involved the research of an appropriate area for relocation, an exploration of the origins of the urban form through field work in the rural area where the squatters were coming from, its intimate relation with the structures of the society living in it, and the way rural elements were modified by the constraints of their new setting. The relocation settlement considered thus not only the
original community, but its transformations through urban constraints. The final proposal was basically a piece of bare land with a water point. No layout was established. However, suggestions were made by the designer for the building of new dwellings, for their clustering, and for the construction of collective spaces, and were presented along with the official project. The buildings were to be built by the community itself. The result still presents rather obvious orders, a regularity which did not appear either in the rural settlement nor in the urban one. But this order is not global. The piece-by-piece intention is clearly present. It is certainly worth mentioning to what extent it has been influenced, even in some unconscious way, by the penetrating process of analysis. As compared to the official project, it appears audacious and even rather subversive. Comparing them the other way is another illustration of the issue of how officially good intentions can lead to a drastic rise in the possibilities of control.

Picture 5-3: Clusters in original location.

Picture 5-4: Official project.

Picture 5-5: Relocation proposal.

Picture 5-6: Relocation proposal.
No architect today sees architecture as capable of transforming society by itself. Utopias and ideologies from the beginning of the century, embedded with various social projects, have led to a series of experiences in which they lost both credibility and sympathy from the public, and whose exploitation by affairists and politicians led to crisis in many countries - like the French Thirty Black Years presented in the first chapter. But this does not mean that the architect is unable to provoke any social change through architecture: the consequences of the Villes Nouvelles are a dreadful illustration of this. The architect is, by his/her own formation and by the general ideology in which s/he is living, limited in his/her practice. To realize what and where these limits are, to constantly question the stance from which any project, any concept, any program is evaluated, is the only way to find fissures in the boundaries of her/his field of action - and to explore the new landscapes s/he can see through them. Goldmann (Goldmann 1977) considers the artist (generally speaking) as achieving the "maximum level of possible consciousness" inside a certain social frame: wandering around the limits of the socially allowed field of action, s/he constantly puts his/her society in front of the arbitrariness and the conventionality of its normative systems. Unlike artists, architects are formed in socially accepted institutions. The possibility of them to realizing the existence of their limits of action is bounded to the presence -explicit or not- of these limits in the material which is taught in official curriculae. Cultural criticism is taught in universities; philosophy sometimes appears as a the authorized ground where official contestation can take place. Can we consider the architect's work as an applied criticism? Insofar as his/her objective is the achievement of a city meant for people, the answer is positive. In an official curriculum, the degree of relativism required for the access to a remote point of view towards our own world can be achieved through the tools and the information provided for instance by social sciences. Through this theoretical approach, we can already achieve a certain critical stance towards our society.
But to realize to which extent our systems of values are
determined by our knowledge, to identify the loci of
our own ideological limitations, a dive into the smell-
ing and confusing reality is a requirement.

The validation of squatter settlements is a conscious
decision to be taken. It asks for a reversal of most oc-
cidental ideological value. Only then will their full
significance appear. Detecting in an environment such
as a slum the embryonic image of a city-to-come;
being able on our drafting sheets to leave blank,
unorganized spaces where unpredictable patterns of
socio-spatial organization can appear; getting rid of
any striated design process when it comes to dealing
with people and places whose task of controlling
should be left to themselves; acknowledging the black
zones of our knowledge as a chance to be again
surprised and fascinated by the unexpected; working
step by step in apparently confused systems which will
not be clarified, but simply erased, if we apply to them
the powers of reason; instead, exploring their un-
known labyrinthian paths, their infinitesimal land-
scapes, discovering the accretion of silented layers of
memory under the active strata where multiple whis-
pering dialogues between villages and people are
constantly going on - this might be the formidable
tasks that future generations of architects will have to
undertake, and for which most of the tools are still to
be developed.
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From Popko 1978

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