

I INTRODUCTION

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1. The City as an Urban Fact

Contemporary society is an urbanized society, better said, a society that in terms of space expresses itself in particular forms of organization characterized by the polarized concentration of the population in determined groups whose dimensions give them precisely the qualification of Urban, to which we give the name of cities. They do not constitute, however, a simple ecological, demographic expression of the global society. They are, equally particular urban facts in time and space where, jointly with man's decisions and creations, alter their own contradictions and project the conflicts of the socio economic system in which the process of urbanization takes place.

As such urban fact the city has offered to man (and history proves it) the best possible grouping advantages for man to organize a space that, environmentally and economically, will satisfy his better aspirations. But the city is not an isolated phenomenon. On the contrary, its origin, growth and actual behaviour are closely related with the economic and social transformation of the society that occupies it, and of which is a structural image. It is not less true that the city represents at the same time a valid option to transform the urban reality.

By itself, this would be enough to justify the role of the cities as an instrument of modernization, even though today it is evident that a great number of cities bring their capacity to face the contemporary dilemma of growth and change. Because of this, the city affirms itself as a creation of man and therefore, it is man who defines it and can re-define it in terms of its ultimate ends and purposes and in function of the economic, geographic and political factors that make it particular or different in the face of other conglomerates.

In this way, the city assumes a social and physical structures in which the individual and society can develop a full existence. We can say that the city is, then, the most suited organ for sociability. From this point of view we can institute the city in our society. Like Chueca Goitia says, "We can live outside of them, but always counting in them, with help and special reference to them, even to the man in the most remote village, without being totally aware of it, that he can have the comfort of knowing that Rome, Paris, Peking and Philadelphia exist and that they serve as sacred deposits for human conglomeration founded on a site converted in homeland and whose internal structures constitute themselves and develop as works of history

to satisfy and express the aspirations of the collective life,
not only the life that takes place in them, but also that of
HUMANITY IN GENERAL. 1)

- 1) Chueca Goitia, Fernando
Brief History of Urbanism
Alianza Editorial p. 43

2. The problems of urban growth

We have said that the city encloses, in certain way, a process of development that is characterized by accelerated and intense urbanization, whose effects in spite of having been recognized do not receive the treatment yet that is demanded by an ever growing urban population. This planning that applies to all countries in general; is not only critical as far as excessive growth of cities, but also in what has to do with increasing population.

Therefore, this process of urbanization is a world-wide phenomenon; this problem has been manifested in all latitudes and with special urgency in the developing countries.

In general terms, the population of urban centers has increased in a greater proportion than that of the total population. Estimations of the United Nations have let us know that for the decade of the seventies it is expected that the growth of the urban population will continue at a greater rhythm than that of the total population, reaching a figure of 3.0% yearly. As a result of this, the urban population which is estimated at a 25% of the world population in 1960, reached the 31% in 1980. This could mean that, a population of 4.344 million inhabitants, the urban population of the world would be 1.354 million.

In latin America, the urban population, that in 1950 was 65 million, reached 95 million in 1960, and passed 138 million at the end of the decade of the sixties.

With a rate of demographic growth that is superior to that of Europe and the United States, the total population could surpass the 600 million at the year 2.000 and of that, 360 million, approximately, will live in the cities. Today, five countries, at least, Argentina, Uruguay, Chile, Cuba and Venezuela regroup more people in urban centers than in rural areas. (2)

- (2) The information utilized was taken from: United Nations: Urban and Rural Population of the world between 1920 - 2000 New York, 1969. Ref ST/SOA A Serie A 44 y Union Panamericana: Depto. de Asuntos Sociales. Datos básicos de Población en America Latina. Washington D.C. 1970.

The most generalized opinion estimates that the rapid growth of the urban population in this country, is the result not only of the natural growth of the urban areas, but also of migration from the country to the city, this last factor in such magnitude that they exceed the functional capacity of urban conglomeration to satisfy the hopes of those who come to the city to find another, better or bigger, opportunity.

The immediate consequences of this situation are the increase in unemployment in the city, the decrease in productive capacity and, of course, the gradual increase of social pressures over the political and economic systems.

However, the interpretation of this city-country relationship cannot be reduced to such simplistic terms. Such relationship has its roots in the problem of territorial order, and as such, constitutes an important aspect of the way in which the society acts within a determined productive system.

It is like this, that such migratory movements that make up the city-country relationships, should comprehend, not only the questions of a backward agricultural structure, but also the problem of land ownership.

For such reason, the comprehension of the urbanization process in Latin America requires an interpretative scheme that will give room, in addition to the factors that influence the population growth, the determining characters of a social and political system that defines the orientation of the economy and at last the utilization of the resources and that includes the urban land.

3. The case of Venezuela

3.1 Frame of reference

The process of urbanization of Venezuela, just like in any other Latin American country, will receive a different interpretation if it's analyzed under a liberal point of view. Or if it is understood as a mode of production of a specific political and social system. In the first case this process will have the character of an independant variable and will explain itself as a model in which, the economic growth alone will be sufficient to solve the problems inherent to the urbanization, basically those of unemployment and poverty, guaranteeing the quality of opportunity and the enjoyment and services that society has to offer. This means the admission of total validity of the economic model overriding, and the acceptance that the cities of the future will play the same of very much alike functions to those they played during the last decades and continue to play in the present. Therefore, the problems that will arise by a population two or three times larger than the present one, would be solved by adding a proportional number of new dwellings, hospital beds, classrooms, and busses, or by widening the avenues and adding thousands of kilometers of cables and pipes and adding new sports fields and parks. This aim insists in ignoring that a capitalist country, not fully developed economically, and that experiments a rapid process of urbanization, does not have the resources to finance the construction and administration of the urban services, of community supply and of the necessary housing, or if it does have the resources, it can only reach those levels by the energetic restraint of consumption of those classes with higher purchasing power and promoting structural changes that will permit a full utilization of manual labor and an independant growth. 3)

- 3) Hardoy Jorge.
"Estructura Espacial. Sistema Productivo y Sistema Socia Político". Conferencia IX Congreso Interamericano de Planificación. Bogotá. Septiembre 1972.

The focus of this document is totally different, since it considers, primarily, the necessity to re-define the spacial structure from which the interrelations that originate between an economic structure, a cultural and ideological one, and another of legal, political and administrative, all together inside of a determined historic frame. 4) In this way, the urban system resulting will be a consequence of the functioning of such structures, eliminating the independence of the process of urbanization and defining it in the context of a wider dimension, where other historic and economic factors can be included. Better said, here we admit another category of analysis that transcends a liberal focus and introduces factors such as the concentration of political power and of the decision making system; determining the type of social and labor relations that come out in society and defining the dominating cultural patrons. The functioning of our urban system (regional) and the traces that characterize it reflect, then, the orientation of the economic and social politics.

It is within this scheme that we affirm the process of urban growth in Venezuela. And, this process, having been neither planned nor controlled by the State, comes closer to the intentions of de-centralization and de-concentration, asking for a more defined general strategy that will introduce transformation in relations of external dependence, and will accelerate and provoke changes in internal structure within the limitations of the acting economic-political system.

- 4) TRAVIESO, Fernando. Ciudad, Región y Subdesarrollo. Fondo Editorial COMUN. Caracas 1972. p.14

3.2. The specifics of the problem: Caracas.

In Venezuela, as in many countries of the world, we experience a rapid process of urbanization, characterized, fundamentally by a high rate of natural demographic growth, and by the growing migration from rural areas towards urban centers. It is worth while to cite facts that typify this national phenomenon:

- a) The proportion of urban population-rural population, reaches percentages of 75 and 25 percent, respectively;
- b) Of a total population of more than eleven million, more than half are under 19 years of age and one third, younger than then years of age; this supposes a participation in consumption and not in production;
- c) The rural life, the patron of life in the country, is strongly influenced by the city, to the point that practically the style and the habits are altered by the ways of urban life.

All of this is typically manifested in Caracas, the capital where the consequences of fast urbanization are felt with high intensity. We can affirm that Caracas repeats the characteristic scheme of the principal Latin American cities in respect of its centralization and concentration. We can also add that Caracas has multiplied in a major proportion than that of any other metropolis.

The difficulties and inconveniences of all aspects bring the excessive growth of a city, having, therefore, distorted its functional character and altered all the patrons of spacial order. But the characteristic of this city, is, perhaps its disproportionate population growth. With this respect, it is of great significance that almost one - fourth of the total population located in urban areas, is concentrated in the metropolitan areas of Caracas, in which are located now over two and one half million inhabitants with projections close to the tree millions toward the end of 1979, and alternatives of growth - that estimate a population superior to five million by 1990. This human contingent has been the result of basically, the immigration from the interior of the country, that has been characterized, at the same time by immigration from rural areas or minor urban centers making the situation of the city very critical for its normal development. Certainly, the continuous expansion of Caracas has increased the urbanized area and organized spontaneous distribution of space that, by means of an uncontrolled use of space, has determined the formation of the zones of ranchos named indistinctively, marginal areas or poor neighborhoods. In this way, the city rises as an accusation or as a warning to society since its bad functioning is

already a symptom of a major crisis.

But the problem of Caracas is not, a matter of human crowding, much less unequal distribution of urban densities. It is also, and more than anything a problem of environmental deterioration, unemployment, social and economic contradictions, administrative ambiguity and emotional uprooting.

Obviously, the answer in face of this situation can assume the line of less resistance and affirm that for its solution, it is necessary to plan the physical means and establish, in its function, social and economic paths that will give back to the city its functional character. The possibilities to reach, or at least, to aim, a well balanced urban renewal are scarce if we do not modify the present system of land ownership without a policy that would permit mass acquisition, and manage for the collective interest, the urban and sub-urban land. Since up to now very little has been done about this in particular, the city has been incapable of solving its own deficiencies, and has progressively accumulated a decline whose gravity is evident and demands immediate action, where, from a starting point of state intervention, the natural tendencies could be controlled and aimed. One of these forms of intervention is that which tackles the problems of re-structuring the urban mass, with the equipping and rehabilitation on the part of the same and with the integration of the communities. This is what in general terms is known as the policy of URBAN RENEWAL.

II. THE NECESSITY OF URBAN RENEWAL
IN A CONCEPTUAL BASIS.

1. The proposed aim.
2. The environmental Dwelling Unit as
a Work Criteria.

Usually, what is defined as Urban Renewal policy limits its objectives to physical renewal. However, if a community is subjected to a process of such a nature, this should be considered as an expression of a much larger process, directed to achieve better quality of life and to offer an impulse to the integral development of that community.

On the other hand, the goal of a Program of Urban Renewal should be its integration with the national policy on development. In other words, the Pre-established general strategy should express a mutual urbanistic logic which will permit the comprehension and the orientation of the plan of Renewal in relation with the general process of urban development.

It should be understood that the concept of urban renewal within which we include this study has as much to do with the activities aimed to produce changes in the structure of the city, as with the institutional actions that make it possible; this is, that the proposed renewal, apart from acting over a constituted space, in which the social and economic contents change, is based on public initiative, be what it may the financial or legal form of the renewing organism.

The subsequent idea as a general concept of planification, is a pragmatic aim for the solution of specific problems rather than the formulation of goals to be reached over longer periods of time. This concept is based on the notion that the problems, felt or manifested by the community, provide an advantageous starting point to elaborate a plan of this nature.

These problems are better perceived than the goals that are set in general or abstract terms. We admit, however that the mere identification of the problems entails a moral judgment that assumes the necessity to resolve them, this at the same time leads to the establishment of goals. The focal point of this project is in the designated areas, since we came to the conclusion that a problem resolved in an integral way and interrelated with the solutions proposed for other problems, would limit to the maximum contradictory actions and would provide a general principle from which to found a plan. The study that we present here considers that the identification of problems, the major or minor degree of severity, the development of alternative policies and the choosing of some of them and the proposition of the plan of renewal could be treated to such level of specifics that would permit to prescribe concrete actions for an area determined by relevance of physical, spacial, topographical characters that are born from the interaction of activities that take place in the same.

In this sense the study orients itself not only to estimate the necessities and revitalize the area, materially and socially, but also to provide experiences and knowledge that would permit the projection of similar projects in other areas of renewal.

1. The proposed aim

The focus by which we have elaborated this plan of urban renewal conceives the realization of a scheme or urban renewal that starts from the limitation of the city in sectors more or less homogenous, and with certain degree of stability to promote and preserve determined relations.

In this order of ideas, the sectors constitute, not only a specific territorial demarcation, but also a social and economic concept within which we could implement the basic paths for spacial order. This sectorization of the city does not mean a simple scheme of special structure in which to insert the proposed renewal. It is fundamentally, a theoretical frame that considers the city as a complex system of elements interrelated in such a way that a unique change could produce repercussions in the entire city, and explains the behaviour of the society with determined basic necessities that are not transferrable and determine the way of life that characterize each settlement. In effect, every city defines its special structure as a result of to interdependant processes by which the constructions and the activities are placed in specific places. These activities constitute variables that identify localized necessities (residence, for example), or others that are expressed and represent the possibility of giving in to the mechanisms of the urban systems by means of which the population can arrive at an increment in its level of material well-being (jobs, health) and spiritual (culture).

The renewal by means of sectorization will make it easier to understand that we are not trying to prepare the city for an influx of great population, on the contrary, we are trying to give to those who live in the city and those who form part of the natural increment, an option for the better use of community equipment and territorial rearrangement.

This is better understood if we take in to account that the different sectors are not isolated, and are interrelated by the interchange of goods and services. This brings about the presence of ties that indicate the differences or accentuate the dependancies between the sectors. This determines the urban function of each sector and, therefore, the type of activities for which they show vocation.

Spacial reorganization, acquires, then a reality with much more sense, it will take into consideration the alternatives of expansion and growth of the city, to satisfy the requirements of the resident population.

An aim of this nature can cause doubts with respect to its contribution of the policy of decentralization and deacceleration of urban growth. However, all cities of certain size experience a spontaneous process of differentiation which consideration is necessary in any process of planification.

2. Environmental housing unit as a work criteria

We propose now to illustrate a specific concept of special differentiation called ENVIRONMENT DWELLING UNIT. By definition, this could be determined areas distinguished from near by ones geographically, structurally and by showing self-sufficiency. This would permit their interaction with the urban system of which they form part.

Described in this way; the dwelling unit is a component of the metropolitan area, being this, at the same time, part of an urban national system.

As such component, the dwelling unit generates and maintains relations with the entire city, finding itself enclosed inside the basic paths of the politics of promotion of regional development. In other words, the unit exercises certain influences over other nearby units and at the same time is influenced by them. The youthfulness of an aim of this nature is justified based upon the identification of the unit as a sub-system that establishes its relations with the general components.

In the second place, we can be sure that the planning of such potentials should not be made in a given center but with special attention to an interdependency of centers which would be defined by its dominant activity and by the reach that it would have within the urban scale. This would also assure the interrelation between the diverse functions.

Once ordered in the way of a hierarchy, these units will show certain interdependence, connecting among themselves and with the rest of the city, in the level of aptitude that will determine the predominant sectorial activity. This will permit the definition of the radios of influence of each unit, which will re-affirm themselves as a spatial group with political and social interactions, providing, therefore, valid criteria to establish communications among themselves, locating investments and distributing activities. It is important to point out, that according to these concepts of urban hierarchy and interaction it is possible to implement the redistribution of the population, and with that, modify the direction of the internal movements of population, control the growth of some of these activities in these units or promote their development to adjust to the different degrees of concentration and the space that will result proper to the nature of the proposed actions.

This interaction should lead to an integral and harmonic development. Another consideration of importance that explains the utility of this aim is the possibility of being able to integrate within one unit, the work, the residence and the institutional, trying to reach, an equilibrium between home and work, at the same time that it can be guaranteed to the inhabitants of the Unit, the most adequate means for expression and access to the cultural and recreational facilities that society generates.

This kind of growth produces an impression of great coherence, and will contribute to the creation of sentiments of communal solidarity, and of belonging to an urban entity clearly defined. It is true that the Dwelling Unit in itself will not be in the way of the manifestation of distinct forms of individualism but even in those cases, the urban personality will try to express itself in characteristic terms of the part to which it feels itself to be attached or with reference to it.

If to this we add the respect that is kept for the nature of the area, there is no doubt that this structure will affect, in favorable terms, the efficient use of the services and the stability of the urbanistic organization proposed.

Let it be clear, that such organization does not entail the mere agregation of units or urban sectors with characteristics that show certain likeness, which would not add anything positive to the city. On the contrary, the idea comes from a systematic differentiation of the urban components coherent with each urban reality, but expressing it among themselves with respect to the general context of the city. In any case, the proposition is sufficiently flexible to permit the changes imposed by urban dynamics, or in any case, to give opportunities to the staged execution, where there will be room for other organism or agents responsible for the development of the city.

III THE CONCEPTUAL INSTRUMENTS

1. Residence

2. Work

3. Social institutions

To better understand the characteristics of the propose, program it is not enough to describe the object of study and function of its diverse stages, but it becomes important to analyse the fundamental concepts that the proposal is based upon. They, together or separately, define the behaviour of the planned actions and orient themselves to identify the essential terms utilized in this work, with the Urban Theory that supports it.

HOUSING:

The concept of HOUSING means dwelling, habitat, address. In this study it will be utilized in its "king of life" idiom avoiding the usage of the term "habitat", since this term considers only the geographic facts relative to the residence of man.

The concept of HOUSING, applied to human societies, is understood as formed by three principal activities : Residence, Work and Social Institutions, being this essence around which we build the theory of this Study, and to the same will be applied the objectives of development, renewal and recuperation of the deteriorated areas of the urban fact under consideration.

This interpretation allows the reaiming of the problem object of the Study, since it admits the possibilities of finding integrated solutions by means of endowment in reference to work and social institutions, basically, meanwhile, offering an action of help toward the betterment of the residency. This on its own accord facilities the planning relative to the deficiency and decay of urban space around which conforms itself physically the HOUSING.

The analysis of these three components permit us to reach at various conclusions:

In the first place, and considered simply as interrelating sub-systems, they show a circular behaviour capable of re-feeding itself and making itself different within each Unit. Viewed in this way, the said components could offer an idealized image that supposes autonomus levels of sufficiency, synchrony, and little propensity toward change. However, in the context of the URBAN THEORY that we are using, each one of those components takes place in different moments and magnitude conditioning its occurence, not only to the variable space- time but also to the periodicity with which the same interact of separate;

all of which tends to balance them. This is, the inter-relation between them can be understood better in the light of the changes that, within a determined length of time, are produced in the spatial pattern and whose major or minor frequency converted in a process of adaptation that goes on offering answers to the changes in the development, structure and placement of the activities.

In this sense, we believe that the separation established by the organisms in charge of planning and control of urban renewal, in controlled and uncontrolled settlements, does not obey to the reality, since they are denominations barely indicative of one of the characteristics under which the urban land has been exploited. The distinction that this Study contemplates is made in function of the consolidation or not of the HOUSING, in the terms that this has been described. As experience shows, in the cases identified as of "uncontrolled growth", these have gone through a process that starts with the invasion of the land, followed by fences and cardboard and other throw aways, until reaching the point of masonry.

Then the first infra-structure services appear, be it because they have been taken, or having been obtained through the collaboration of some State organism. By this time, small stores, schools and other community services will have started. Result: The neighborhood acquires an identity, this is a denomination that identifies its inhabitants, and starts its consolidation as such. Certainly, we cannot talk yet of the HOUSING as being complete, since it lacks services and work, but the residency has initiated a process of betterment by the activity of the inhabitant.

It should be recognized, however, that in all cases such areas correspond to growth and reflect the patrons of proper urbanism of our structural urban reality. Better yet, to measure its degree of consolidation we would have to take into account not only the level of balance that the residency will have reached, the work and social institutions, in function of the space-time periodicity, but also the existing social stratification, the economic status and the sphere of educational interests, whose effects as variable should be controlled to promote and reinforce communal relations.

In this sense, it is worth noting that the state's aim has supposed, up to now, a repetitive and apparently economic solution that is manifested in the mere building of residences, which is in our judgement a mistaken plan. In effect, in the population clusters, the predominate tendency has been to build and distribute residences, following a certain order that facilitates the circulation of vehicles and pedestrians, and guarantees internal and external communication, by means of the creation of an urban net defined only in terms of edifications and circulation routes.

It is obvious, however, that by centering the action in the physical planning, very little is said of the aspects that are definitively going to determine the necessary adherence of the communities for the better accomplishment of the program. We cannot overlook the fact that the different population elements clustered in an environmental unit with certain degree of crowding, will tend to segregate as their requirements and forms of activity or life, result in incompatibility and antagonism, which will bring a variety of personal characteristics, of occupation and cultural life, that have to be considered to propose a special patron in function of the interest of the urban community and not of the planners.

This means that if the solution of the problems of the settlements not consolidated can show to be adequate in its physically constructive aspect, in no case has taken into account the functioning capacity of such residential nucleus, nor the effects of the other components of HOUSING (work and social institutions) to the ends of minimizing the urban complex of resulting crowding. This explains why the social, economic and cultural aspects turn into unmanageable variables and pretend to justify the absence of firm criteria over problems of uprooting, neighbor isolation and scarce participation in the proposed solutions. It ends by imposing a patron of special use that does not correspond with the expectations or the values of the effected population.

1. RESIDENCE

Within the context that we are using, the concept "residence", we understand to be the place of abode of the family, from which originate the diverse fluxes to the rest of urban life.

This idea of "residence" as a component activity of the concept HOUSING, implies that such notion goes furthermore than a mere description of the place where the family is located, since it incorporates the levels of satisfaction of the users with respect to services and facilities offered to them.

2. WORK

In regards to what was previously expressed the concept (Work) is an essential component of the concept HOUSING. In affect, without employment it is not possible to satisfy completely this "way of life", since man only has access to consume (supply, health, education, recreation, residence) through the social and material resources that derive from his production. Better said, that the lack of resources does not allow him the access to the earnings that will make it possible to reach and adequate level of life.

To the practical effects of making this concept operative he sees himself as an educational component of production that orients to the establishment of work nucleus in the industrial process of transformation nearest to the consumer, creating then, a work residency relationship, of immediate character, which would serve to minimize the relation of being productive-being dependent. This implies the incorporation of the majority of people to the process of production, specifically to the woman and to the young population capable of assuming production-education roles, simultaneously. These centers of production could concentrate a certain specific activity (toys, shoes, furniture, etc,) which would give a major degree of identity to the community, at the same time increasing the enjoyment generated by such stimuli.

3. SOCIAL INSTITUTIONS.

This concept, as a component of HOUSING, includes such activities as education, health recreation and the intellectual and moral betterment whose enjoyment obeys to pre-established cultural patrons.

From this explanation we deduct that the system whose objective is to make HOUSING available is conformed by the spacial answer to the activities contained in itself and to the channels that house the relations between these component spaces. If we want to better identify such system, we must extract the following objectives: provide work, provide residence and provide social well-being from this we can deduct that three sub-systems will exist as a spacial answer to such objectives, which will be respectively: work, residence, and social institutions.

The interactions that develop between such sub-system will be essential, equally, the spacial answer given to conform the initial system that we call HOUSING.

The return of such system will be conformed by a series of parameters that could be listed as the socio-cultural patrons of the sector where the system functions, the policies of the National Government with reference to the type of zone and the general physical aspect of the location of the Unit.

Let us note that the theoretical aim of the HOUSING UNIT will permit, in function of the characteristics of the social, cultural, and economic of the urban structure and the physical factors of the Unity of Sub-Unity environmental housing, to adapt to these variables maintaining as parameters those which will be identical to the different places desired.

The tesis of the Environmental HOUSING UNIT, with the undeniable dominance of its social character, covers fully in that orientation, and constitutes in our judgement, a valid aim of urban planning.

IV THE CRITERIA OF URBAN DESIGN

The implications of a Program of Urban Renewal are not limited to the field of economic theories, nor do they exhaust themselves in the problems of legal, political or social character. They are equally important to Urban Design since, while transforming the physical aspect of the urban space, they also introduce criteria that adheres to the total aspect of the area under study. The urban form is perceived then, from a starting point of the natural forms and those that correspond to the input of man, which means the establishment of certain hierarchy and assignment of mutual importance. This will permit the evaluation of a spacial solution that will be offered from the point of view of the uses and functioning of the re-conditioning of the HOUSING, being this understood as a way of life.

The characteristics of the area and the recognition of its diverse possibilities and objectives bring us to the proposition of the following criteria of Urban Design that traduce, not only the physical clearness of the Guaire Superior Sur Dwelling Environmental Unit, but also, - and above all - its adaptability to the effects and consequences of the resulting urban sketch.

* Surrounding Hills:

Define in terms of limits, The Environmental Housing Unit, being at the same time factors of identity and development as green areas of recreation for the enjoyment of its inhabitants.

* Valleys:

Their recognition, from determined physical and functional characteristics, allow for the sub-division of the Dwelling unit into sub-centers, psychologically, identified in the man-environment relationship, increasing the feeling of belonging and pride in those who inhabit them.

* Landscape:

The development of Landscape will offer spaces for recreation and will fulfill functions of adaptation to the physical means, while adding sensations of visual pleasure and comfort.

* Road System

In addition to the arteries connecting the Unit with the rest of the City, secondary roadways should consider the present characteristics emphasizing the worth of the hills and valleys through the visual aspects that permit these open spaces.

* Buildings

Reflect the character of the activity and provide points of reference for the residents. Apart from being factors that control the illumination and ventilation of the urban spaces, depending on their placement, height and mass, being utilized to create shade and light, and located in such way as to direct the wind direction for better ventilation.

* Identity

Common term in the previous criteria and throughout the entire Study, represents a factor of the first order of importance in the development of the human being. It is Identity that permits the same relation between man and means, while at the same time generating patrons for organization, a system of relations, feelings of security and belonging, having all of these been found among the families that have lived for a number of years in the boroughs of Antimano, La Vega and Macarao.

V THE FEATURES OF THE STRATEGY

1. Objectives
2. Determining Factors of the Strategy
3. The Strategy Itself

1. Objectives.

The proposed strategy which concentrates in the identification and function of a net of environmental units, has as a more general objective the realization of the actions formulated by the national government, as part of the directing principles that conform the policy of development and territorial order. Specifically, that objective is expressed in others dealing particularly with the situation of Caracas and with the possibilities had by the agency of Urban Renewal of the City-Centro Simon Bolivar, C. A. - to turn into equipping programs and plans of urbanism that will make it possible to find a better demographic and economic balance of the above mentioned Units, within the metropolitan context, but at the same time, guaranteeing the protection of the natural surroundings.

Those objectives make reference to the betterment of the special organization of the social groupings called Environmental Housing Units, and imply from a political viewpoint, the possibility of exercising governing control over two of the processes that presently condition the phenomenon of urbanization in The Metropolitan Area: one, the proliferation of spontaneous settlements, whose ordination and betterment has been the object of special attention (decree 332 of The Presidency of the republic) and other, the necessity to relocate those who by the consequence of the inhabitable areas where they have placed themselves, must be relocated in a way that will permit the restoration, improvement and better usage of them as green zones (decree 333 of the Presidency of the Republic). This relocation should take place strictly within the Unit so as not to break with the scheme of relations between residence, work and social institutions (concept of HOUSING).

From the economics view, those objectives belong to the relation that should be established between the action of limiting the growth and decentralizing the development, and the magnitude of the resources to tap in order to satisfy the requirements of the population. In the same way such objectives make reference to the destiny of the zones to be renewed, to the advantages that could be obtained from the same, and therefore, to the priorities that have to be established among them, to the effects and special

placement of the residence, services and employment generated. In this sense, the Program should take into consideration the development of the area and the relating of it to the most general policy of metropolitan and national development, all of this under the protection of a careful cost analysis. This last will permit, not only the maximum adjustment of estimates, but also it will facilitate the comparing of cost and benefits of the proposed alternatives, in the sense that a consideration of the first order is the possibilities for revenue that could be had by the Programs.

In social terms, the objectives of the strategy are primarily oriented to solve the problems of spacial segregation characterized by the development of Caracas, which are the result of fast urbanization, or are born from the nature of urban life. The coexistence of what O. M. P. U. calls "tops two Cities, the Capital, and the Marginal"), not only enlarges the margins of impatience and dissatisfaction, but also produces the pressure mechanisms ready to force decisions over placement of infrastructure, housing and services, whose effect is always adverse. For such reason, it is of importance to attend to the space - social systems relations and generate effective measures, that will not be a mere projection of the traditional programs.

2. Determining factors of the strategy

Clearly, with respect to the program of urban renewal that propose, we can distinguish some present and future conditioning factors, that conform to the operating and informing basis for the generation of alternatives.

Previous Diagnosis:

Those conditioning factors are as follows: (3)

- 2.1 The population increment of the metropolitan area whose tendency is oriented toward the alternative that will take the city to 4.500.000 inhabitants by 1990, reaching a level of 2.954.470 inhabitants in 1979.
- 2.2 The increment of the marginal population that is estimated at around 319.000 people, during the next fifty years, or 62% of the total increment projected as additional population estimated at 514.105 people, approximately. That population will add itself to the 935.000 marginal inhabitants existing now in Caracas.
- 2.3 Spacial placement of the growth: The majority of the population increment has been oriented toward the periphery, causing occupation of the hill areas, with the subsequent negative effect with respect to the elementary urbanistic actions, since such placement does not adapt itself in terms of space nor time, to the what has been programmed, apart from the consequences that this fact originates as a factor of deterioration of the natural environment.
- 2.4 Deficit of activities: The city presents great deficiencies that condition its functioning, being these manifested in the unbalance of spacial placement between the activities inherent to work, residence, institutions and the lack of harmony of the fluxes generated by them in the different zones and hours in which they are observed.

- 2.5 Existing spacial offer: The requirements of the population estimated as incremental, in terms of space, point to a deficit in areas truly free and with an unequal distribution as far as possibilities for immediate use, if we take into account its surface and the infrastructure cost per inhabitant. To this we can add the need not to effect the majority of urban land and the introduction of policies of control of the growth convenient to guide the Program toward the objectives of the general strategy.
- 2.6 Capacity for public and private investment: The execution of a program of this nature is equally determined by the public and private capacity for investment. In the first case, because that capacity is going to permit the definition of limits, costs and marginal benefits, indicating the financial viability of the Program. This implies, calculate necessary resources, estimate the demands of services, and above all, analyze the restrictions to effect the urban property in base of available funds. In the second case, because the criteria of revenue offered and the need to execute the Program, can determine the participation of the private sector, should such participation be considered convenient or necessary, in which case, the type of relation between the two sectors will have to be defined, taking into account, the pre-established objectives on the part of the creators of the Program.

At margin of this group of facts and situations that we have named determinants of strategy, another problem exists as a key to urban development and which should be considered for the formulation of the strategy. This problem is the one that is brought about subdivision of the land for urbanistic purpose, being the land inadequate, not only by the poor relation established between the procurement of the works of urbanization and the control over the same, but for what represents as a reflex of a conflict of interests that reduces the possibility of parcels integrations for the betterment of the process of edification and the provision of infrastructures. It is evident that the inflation of urban land and also the suburban land, promote the excessive fragmentation of potentially good land for urban purpose and reduces the minor densities to levels that, practically, make it impossible by the construction and operation costs; the provision

of public services and the indispensable equipment for the community. (4). Of course, the deficiency of the administration and control of distribution and redistribution of land has a lot to do with this, therefore, the absence of a positive criteria dealing with the advantages of a spacial order that would limit the excessive sub-division of land and make easier the usage of ever larger surfaces.

- (4) Hardoy, Jorge. Moreno, Oscar.
La reforma Urbana en América Latina, en
Revista de la Sociedad Interamericana de
Planificación. Volumen VII, No. 25, page 9. March 1973.

3. The strategy itself.

A strategy that will respond to the requirements and to the problems demanded by the situations and facts identified as determinants, should be oriented toward the granting of an acceptable degree of application of the proposed actions and its harmony with the national outlines for development. To that end, it should obey an order of priority of actions determined by the magnitude and urgency of the problems, and the reach of the potential offered by the concept of Environmental Dwelling Units. In this sense it contemplates the following aspects:

- 3.1. Defination of objectives: From a political, economic and social viewpoint, which means the understanding that the program should be coherent with a directing principles that form the national policy of development and territorial order.
- 3.2 Definition of responsibilities: In the sense of recognizing and taking into account the necessary coordination that should exist between the organisms that plan, program and execute, as well as the compatibility that should be established among the indications of who will take the decisions and suggestions made by the community. This is much more important if we consider that, in programs of this nature, the placement of the physical components should respond, in some way, to the values and motivations of the social groups effected and to its economic status. In that sense, community participation turns into a problem of organization, values and processes. In first term, there are, at least, four types of activities that give origin to different levels of participation: one, that which comes from individual and/or groups oriented toward the search for information and help to solve specific problems; another, that which has the character of spontaneous protest and entails a determined level of activism, in front of some concrete example of threat to the interests of the community; three, those which generate the creation of groups to take care of one or more particular matters (Example: Trash collection, police protection, pre-shool care, among others):

and, finally, the activities that give place to the formation of more lasting associations, with legal recognition and for objectives of longer duration. Evidently, any participatory scheme to be adopted should revolve around the two last alternatives. In the first case, combining practical help and technical consultation; in the second, adding to both cases, capabilities and training to enlarge the quality of the answers. Now then, participation should be seen as a continuous process what means that the same will take place in all the stages of the plan:

- a) In the initial phase, to the effects of providing information about what is proposed and the conflicts and obstacles anticipated.
- b) In the phase of preliminary elaboration, where the confrontation between planners and groups will seek to reconcile the needs and demands that the people with the possible alternatives.
- c) In the final phase of the plan, in which an explanation would be made as to the why of the decisions taken.
- d) In the phases of implementation and evaluation, in spite of the possibilities of the residents losing interest in the effects of the program once the decisions have been taken, on the contrary, it is at this point that it becomes necessary to accentuate the mechanisms of communication and assistance. Even though implementation is a stage with clear content for the planner, it implies insecurity for the people effected by the action (for example: relocations, accessibility, etc.) and with regards to evaluation, because the urban dynamic can suggest changes in the orientation of the Program or alter the order of priorities. Finally, in due time the plans should be evaluated with the ends of establishing the modifying action of the urban dynamic and the degree of acceptance on the part of the people as a true answer to the urban fact in experimentation.

- 3.3 Definition of the area of action, over the base of that which will result as priority and with foundation on the determinants of the strategy that have been pointed out.
- 3.4 Definition of Principles, which means, in the first place, that the program has to be economically, socially, politically and technically feasible. In second place, it is necessary to have flexible declines for the different stages of the Program, permitting the adjustment to the dynamics of each situation. The third principle deals with the convenience of evaluating all the problems that typify each sub-center, and establish hierarchy in accord with its importance, be it by the number of people effected or by the social cost of the proposed solutions. Finally, we should keep in mind that any program in order to succeed, needs to lean on a continuous study and evaluation of the situations that originated it, in a process that will permit the modification of its budgets when these be convenient or necessary.
- 3.5 Defination of programs. This entails two types of actions: one, that comprehends the environmental Housing Unit as a general criteria of work and includes, attention to urban-regional development: another that is expressed in specific projects for each unit already identified by the requirements and potential of the same, within the considerations time and space and on the basis of an economic, and financial study where costs and morgages are described.

VI IMPLEMENTATION

1-. Principles

2-. Priority of the Projects

3-. Financial Evaluation of the Programs

1. - PRINCIPLES

The implementation phase of the program supposes the effective materialization of the principles that order it. In this sense, before describing the mechanisms particular to this, we must point out that there are certain circumstances that condition the major or minor effects of the same, being:

- a-. The number of agencies and/or superimposed organisms, or with contradictory field of action, usually due to lack of knowledge of its programs and inversions.
- b-. The political interest in the program.
- c-. The lack of adequate legal instruments to the nature of the pretended actions.

Within these limitations, an important part of such implementation is the need to program the corresponding actions in function of variants present in the concept of Environmental Housing Unit, and whose behavior cannot suffer alteration, whatever the way of implementation may be, or to modify it as its fundamental budgets require. In the first case we are not making reference to the basic concepts of the Plan: better said: residence, work and social institutions, HOUSING. In the second case, the reference is as to the physical means, geographic characteristics, and to the nature of the population element, (magnitude, composition, levels of income).

Concerning the norms of form and development, this last function will establish the uses of the land, tending to the changes taking place in the time and space during the realization of the Program, being the control instrument that will evaluate the effect -positive or negative- of the same.

As far as economic and financial aspects of the Program, there is no doubt that Urban Renewal, in terms of concrete public works, affects a number of interests, basically by the new usus given to the urban components. However, the greatest danger in a program of this nature is the possibility that the population that is supposed to benefit from it, will not have access to the advantages of the same, due mostly to the functioning of private marketing of the land. In effect, by emphasizing the physical aspect of Renewal, there is a tendency to minimize the fact that, within those limitations, the program could result too costly and, indirectly, worsen the living conditions of the population, in reason of facts such as land ownership, cost or rent of the units to be renewed, or the characteristics of the market in general. It is for this reason that the proposal of Renewal adopts a strategy based in the needs of HOUSING and in the reality of the respective market, which does not mean that the tendencies of such market could condition the objectives of such Renewal. All of this has to be carried out in such a way as to concentrate the public interest and to channel the needed resources for the construction of the corresponding urban complexes, in such a way that the input from the private sector, if it is the same that has room within the Program, could help rather than interfere with the effort of the public entities.

Now, the implementing of a program of this nature conditions its effectiveness in what can be defined as policy of urban lands. These form a local resource whose demand lies in function of its placement and access, which determines the requirements that cannot be satisfied without its rational usage having been determined. Of course, the public control of the land does not constitute, by itself, the solution to the urban problems, but it is a pre-condition for adequate physical planning, and an effective use of investments and the path towards a major ecological equality of the urban areas. - (1)

The implementation includes, in essence, the following actions:

- a-. A previous and immediate action destined to control the land, being through State intervention or by means of its capacity to expropriate. In either case, the action will lead to the massive acqui-

sition of land for specific ends, basically, to legalize and supply a basic infra-structure to the spontaneous settlements, but also to make the terrain available to the actual inhabitants of the barrios. Land acquisition of part of the State, will also permit the solution to the problem of excessive sub-division of the land, facilitating the integration of parcels into bigger units that will better respond to the purposes of Renewal.

Let it be clear that this policy of lands has to be a part of the national program of social and economic development. In consequence, it should complement itself with aspects of other public action, particularly with zoning, imposing policy and any other measure that will insure the control of urban development.

- b-. The establishment of a mechanism of coordination and institutional support that will make harmony between the distinct public and private interests, should that be the case of the Program.
- c-. The introduction of a system that will channel the possibilities of savings and credit, outlining the opportunities for mutual help, and establishing cooperatives and the use of other financial formulas within the reach of the affected population.
- d-. Propositions to the modification of present zoning and to adjust, then, the different uses to the resulting urban structure.
- f-. The strengthening of the basic organisms, by promoting institutionalization or encouraging direct participation on the part of the population in the different stages of Plan execution. Primarily, it pretends to incorporate effectively such population to the productive process, generating the facilities that will give access to the majority of the population, to employment opportunities.

2. PRIORITY OF THE PROJECTS

No doubt, the investment required for a plan of this magnitude exceeds the availability of the resources affected to such purpose. For that reason, it is imperative to assign to the different projected actions an order of priorities that will respond to criteria of rental ability, which should be oriented, mainly due to the urgency of the problem to be solved. Better said, in view of the difficulty of classifying the programs, based solely on the net benefit that could be derived from the same, we must use other methods in virtue of which, the categorization of the programs will be made in function of the needs for renewal.

Of course, this kind of criteria seems to take into consideration only one sector of the community; that where the severity of the problem magnifies the needs felt, without taking into consideration the global effects of the Program or its relation to a planning of national or regional policy. However, it is worth noting that the institutional framework within which the Plan of Renewal will take place, will provide a rational basis for the establishment of such order of priorities.

3-. FINANCIAL EVALUATION OF THE PROGRAMS

This phase of implementation is reduced to determining the proper criteria for estimating the investment, in cases in which the projects will be carried out entirely by the public sector, or if such execution contemplates the participation of the private sector. In the first supposition, we should consider whether or not the rentability expected will be sufficient to cover costs, or if not, what would be the repercussion on the budget.

In the second case, considering that the participation from the public sector focuses on the acquisition of land and provision of infra-structure, the question lies in the defining of such participation and the conditions under which, the same will be permitted.

GUAIRE SUPERIOR SUR ENVIRONMENTAL HOUSING UNIT

I - INTRODUCTION

The Guaire Superior Sur Environmental Housing Unit is a practical application of the already described concept, of the Environmental Unit as a work criteria. In that sense, the plan of Renewal proposed for that area, can be related to the general objectives of the Environmental Unit, what brings about the conformity between the real action to be carried out and the foreseen action of the Urban Theory sustained by this Study.

We should warn, however, that not all of the area of Guaire Superior Sur, show the same degree of development.

In effect, apart from the functional differentiation of corresponding urban space, the different components of such Environmental Units, present particular characteristics, defined, mostly, by the usage of the space in terms of HOUSING. These differences cannot be separated from those originated in the demographic and economic structures, and demand, as those mentioned before, to be taken into account to the ends of Renewal. We can say, then, that the differences between the existing developments in Guaire Superior Sur, point to the need to establish priorities that will lean toward the betterment of the conditions where the physical defficiency of the land, the density and the economic situation of the population require immediate and continuous attention. Of the same importance, however, is the consideration of other areas where deterioration is beginning to show.

The action of Urban Renewal should, then, direct itself in both senses so that the betterment of environmental conditions will also reach the entire community and the majority of the population.

II - DIMENSION

1. The General Profile
2. The Physical Description

1. THE GENERAL PROFILE

The Guaire Superior Sur Environmental Housing Unit is integrated by the following urban sub centers: Antimano, Caricua, Macarao, Montalban and La Vega, each one of which is defined fundamentally by its physical configuration, and also by a certain number of descriptive factors that while making them different, establish amongst them a hierarchic categorization in function of its own dynamics and of the importance relative to the activities that take place there.

This is, that the urban hierarchy of such components comes from the determination of level and the function of each sub center in relation with the rest, since not all of them are not of equal importance in the metropolitan context.

Such hierarchy is established in base of demography realities (size, concentration and mobility of the population), economics (activities, that take place, level of employment), and social (specially in reference to the patron of urban equipment: facilities, services and installations of educational character, matters of recreation and sanitation).

The structure of these sub centers is conceived as something inherent to urban expansion whose principle characteristics must adapt to the change and unexpected tendencies.

As a physical entity over which the social groups act and the activities take place, the Guaire Superior Sur Unit, is under constant pressure for change and growth, what tends to destroy the existing relations between the natural medium and the creations that man has offered in the past, producing therefore, the environmental deterioration of this urban phenomenon.

These constant pressures are manifested in deteriorated buildings, lack of services and urban spaces adequate for the realization of human activities, the lack of knowledge of the natural attributes of a city by its continued devitalization, the lack or weakening of identity between man and his environment, the irrational use of available space, which are, among others, some of the problems identified in the diagnosis of the situation of these Environmental Housing Units.

Convincing examples of this situation and of the unsatisfactory results of the development produced, can be observed in the deterioration shown by La Vega, Antimano and Cacarao, in the accumulation felt in Caricuao which functions, practically as a population deposit, and in the monotonous development, foreign to all consideration of urban aesthetics in Montalban. This is sighting only some of the critical points of this Unit since in all of them a low level of life is predominant, as well as lack of services and availability of usable urban land.

All this justifies and makes possible the design of an Urban Renewal Program that -within the previously explained conception- allow for immediate state intervention, for a control of urban land and the taking advantage of the possibilities offered by this Unit, in terms of locating its population under acceptable social and economic conditions. In the same way, a Program of this nature tends to bring about a greater popular participation, integrating the community to the plans of development.

Finally, the Program of renewal for the Guaire Superior Sur Unit adopts and favors the usage of conceptual instruments initially defined (housing: residence, work and social institutions), placed here in function of satisfying the existing circumstances.

2. THE PHYSICAL DESCRIPTION

The Guaire Superior Sur Environmental Housing Unit comprehends a zone of approximately nine thousand hectares, whose topography has been determined in the development and evolution of its urban form.

The limits of such Unit could be considered to be the following:

On the north: Caracas - El Junquito Road

On the west: Macarao National Park

On the south: Caracas - Los Teques Road

On the west: O'Higgins and San Martin Avenues that serve as the connecting road between the Unit and the center of the City.

It is worthy to observe the confinement to which the Unit is submitted in its north-west, and south borders by a chain of mountains which surround the developments of Montalban, Antimano, Caricuao and Macarao; crossed by the river Guaire. From this zone other developments are born in smaller valleys, such as El Algodonal, La Yaguara, Mamera and La Vega, all of which are capable of being developed depending on the topographical conditions present.

The geological characteristics -not known by detailed studies- can be defined as favorable in all the areas of up to 20% of incline; with the existence of problems in the zones of more accentuated incline and inhabited by the developments of poor neighborhoods.

This zone has suffered the effect of exploitation of stone mines, sand and cement; erosion caused by dredging and by the change of natural drainage; open sewage waters, etc.

The temperature of the Environmental Unit is on the average of 22 degrees C., and the level of precipitation reaches nine hundred mm. * These characteristics, along with the orientation of the valley, which is not very favorable to the direction of the winds, show the importance given to the height, mass and direction of the buildings so they will be better used in the channeling of the wind speed and in their capacity to ventilate the urban spaces, providing at the same time with urban zones of protection to the pedestrian flux and spaces of expansion.

Special consideration is given to the vegetation of the area and to natural drainage existing in it. In the first case, by the effects of the species to be planted with aims to reforestation, and in the aesthetic and climatic design of the environment. In the second place, since the processes of natural drainage reclaim a process of recuperation and better usage in the development of ample forest zones that will facilitate the integration of the area to the nearby mountains, which will be, at the same time, a factor of identity between the forest zones with the populated zones.

This process of recuperation is more important with reference to marginal areas, since the dwellings have invaded the river beds, many of which have suffered changes that affect their capacity to carry rain waters and give place to the clogging caused by trash accumulation, throw-aways, and erosion materials. The obvious result of this situation is that, those people living in these areas, are periodically subjected to many problems, being witnesses to their own worsening way of life.

* U. C. V. - "Study of Caracas"

It is determined, in the first phase of the study, the possibility of recuperating the principal natural drainage, taking into consideration the existing alterations, for this, it is necessary to estimate the flow that is generated in each one of the beds and sub-beds of the hydrographic area under study.

The strategy proposed for the realization of the plan of urban renewal in Guaire Superior Sur reflects the problems that come out of the process of spontaneous settlements, and is formulated within the same social, political, and economic objectives described for the Unit in general.

Particularly, in the case of the Guaire Unit -just as in other units- we will have to add more specific considerations, which will determine the feasibility of the proposed strategy. Those considerations make reference to:

- a - The particular degree of consolidation of the settlement of efficiency of its physical-spatial structure.
- b - To the degree of understanding between the different organisms of the public sector with competency in the development of the area, and between this and the private sector.
- c - To the degree of function of the sub-centers that make up the Guaire Superior Sur Unit to establish and strengthen its system of relations and,
- d - To the capacity or potential of the communities as sources of information and/or help for the setting of priorities.

III - STRATEGY

1. Strategy Outlines

2. Actions

1. OUTLINES OF STRATEGY

1.1 The Guaire Superior Sur Environmental Housing Unit is defined as an area of priority action, in function of the characteristics of the settlements located there, as well as of the possibilities of relocating activities and energizing the different sub centers. That is determined by the immediate use of the existing resources to activate the zone economically and to recondition it physically and socially.

1.2 A second course of action imposes the need to coordinate what was mentioned before, with national and regional policies of development, over the base of the relations between the sub centers and of these with respect to the metropolitan space and its area of influence.

This supposes:

- a - Definition of hierarchies between the sub-centers, to the effects of placement of investments.
- b - Measures of control over the urban land and its usage.
- c - The design of financial mechanisms that will insure the development of the different areas in function of the economic capacity of the affected population.

1.3 The investment destined to cover the requirements of housing moves away from the static treatment that has characterized it (investment, recuperation, rentability), in the changing of the concept of housing itself.

In effect, as it was planned all the Environmental Housing Units, the concept of HOUSING ceased to be a closed notion to convert itself in a system of complementary functions where residence, work and social institutions interrelate the mere physical space with the possibilities of social integrations and generation of employment.

The application of this type of actions determines the establishment of very general norms that, parting from the existing conditions, permit the adaptation of housing solutions to the requirements of each particular sub-center.

2. ACTIONS

The strategy contemplates a group of actions that, within the framework of the outline, aim at:

- 2.1 Ordering the problems of the Guaire Superior Sur Environmental Housing Unit in form of priorities to define the corresponding treatment, in attention to the urgency and magnitude of the same and to the light of the possibilities offered by each particular sub center.
- 2.2 To define specific short term goals as an answer to the urgency mentioned before, and medium and long term goals that of course, would fall within the national policy on territorial order.
- 2.3 Formulate concrete programs for each sub center, over the base of the expressed requirements.
- 2.4 To assign resources for the completion of the programs and to define the respective responsibilities to all levels and in all phases of the execution of the proposed Plan.

ACTIVITY	SUB - CENTERS					
	M2/Hab.	U.V.A. CUAIRE SUPERIOR SUR	ANTIMANO	LA VEGA	CARICUAO	MACAPAO
POPULATION OF DESIGN	500.000 hab.	120.000 Hab.	60.000 hab.	200.000 hab.	90.000 hab.	30.000 hab.
EXISTING POPULATION	420.000 hab.	100.000 Hab.	50.000 hab.	170.000 hab.	75.000 hab.	25.000 hab.
RESIDENCE: 16.666	8.333.000 m2	1.999.920 m2	999.960 m2	3.333.200 m2	1.499.940 m2	499.930 m2
EDUCATION: 4.105	2.052.500 m2	492.000 m2	246.300 m2	821.000 m2	369.450 m2	123.150 m2
Pre-school: 0.585	292.500 m2	70.200 m2	35.100 m2	117.000 m2	52.650 m2	17.550 m2
General Ed.: 3.100	1.550.000 m2	372.000 m2	186.000 m2	620.000 m2	279.000 m2	93.000 m2
High School: 0.420	210.000 m2	50.400 m2	25.200 m2	84.000 m2	37.800 m2	12.600 m2
Culture: 0.500	250.000 m2	60.000 m2	30.000 m2	100.000 m2	45.000 m2	15.000 m2
ASSISTANCE: 0.400	200.000 m2	48.000 m2	24.000 m2	80.000 m2	36.000 m2	12.000 m2
RECREATION: 8.000	4.000.000 m2	960.000 m2	480.000 m2	1.600.000 m2	720.000 m2	240.000 m2
Parks: 2.000	1.000.000 m2	240.000 m2	120.000 m2	400.000 m2	180.000 m2	60.000 m2
Passive Rec.: 2.000	1.000.000 m2	240.000 m2	120.000 m2	400.000 m2	180.000 m2	60.000 m2
Active Rec. : 4.000	2.000.000 m2	480.000 m2	240.000 m2	800.000 m2	360.000 m2	120.000 m2
CULT: 0.040	20.000 m2	4.800 m2	2.400 m2	8.000 m2	3.600 m2	1.200 m2
PROTECTION: 0.083	41.500 m2	9.960 m2	4.980 m2	16.600 m2	7.470 m2	2.400 m2
SUPPLY: 2.000	1.000.000 m2	240.000 m2	120.000 m2	400.000 m2	180.000 m2	60.000 m2
CEMENTARY: 0.150	75.000 m2	18.000 m2	9.000 m2	30.000 m2	13.500 m2	4.500 m2
OFFICES: 2.000	1.000.000 m2	240.000 m2	120.000 m2	400.000 m2	180.000 m2	120.000 m2
Public: 1.000	500.000 m2	120.000 m2	60.000 m2	200.000 m2	90.000 m2	60.000 m2
Private: 1.000	500.000 m2	120.000 m2	60.000 m2	200.000 m2	90.000 m2	60.000 m2
Industry: 1.666	833.000 m2	199.920 m2	99.960 m2	333.200 m2	9.940 m2	49.980 m2
ARCA (in hectares)		625.95 Ha	132.00 Ha		52.5 Ha	

IV - IMPLEMENTATION

The implementation of the Plan of Urban Renewal for the Guaire Superior Sur Environmental Housing Unit is closely related to the realization of the objectives formulated for the same. In this way, such implementation is reduced to the adaptation of the mechanisms with the objectives hoped for. In such sense, the measures of implementation contemplate:

- a - In first term, the massive acquisition of land on the part of the State with the subsequent immediate development of the land required for the realization of priority objectives.
- b - Jointly, the public sector will establish the conditions by which the inhabitants of the poor neighborhoods and those who will determine the activities that make part of the concept of HOUSING, could acquire the property or the use of the land. To that end, the credit program will expand and the possibility will arise of using the mechanisms of the system of Savings and Loan and of the Mortgage Banks.

The acquisition in every case will be for a price equivalent to the expropriation when the same has taken place with an additional payment in proportion to the costs incurred by the State in the realization of the works, or in attention to the importance acquired by the zone.

- c - The acquisition of the use or of the property of the land on the part of the beneficiaries of the Program implies, for them, to accept the practice of a cooperative system that will grant the access to the land by those who really need it, and impede that future successive transfers distort the aims of the Program originating a new relation of supply and demand and provoking emigration toward other areas where the problem that we pretend to resolve, would be then manifested.

- d - Since the income level can affect aim and capacity, the mortgage warranty to be established over such lands should admit a preferential right so that it will be the State, the first one with the option to acquire the land for the same price as that of the initial transfer -previous to the payment of betterment- if those lands are required for works of public or social use or if the mentioned payment capacity does not make it possible for the beneficiary to satisfy their respective quotas.

- e - In the supposed case that the State decision would be to rent the land, a revision is permitted, every so often, of the initial arrangements, to the measure that the increase in the value of the land will be a reflex of the actions of the State.

ANTIMANO

INTRODUCCION

The Antimano Sub-Center, as far as, conforming in detail to the Guaire Superior Sur Environmental Housing Unit, as an answer to the planned model for such Unit and in consequence, reflects the internal needs of the city and the objectives of the general plan of urban renewal.

Located to the southwest of the city, it extends over an area relatively flat, whose accessibility from the center of town and from other points equally strategic, give it a manifested centrality within the system of this Unit. Its actual patron of development can be considered in general terms, as of extensive usage of the land, as much industrial activities which are predominant in that area as for other uses that have not yet reached high density. Around the mentioned flat areas are located spontaneous settlements of marginal conditions and not uniform with consolidation, some being found that correspond to the last stages of invasion of land. These settlements, not yet consolidated lack the services, infrastructure and adequate facilities to the housing situation, representing an aspect of environmental deterioration that will get worse unless some coordinated and consistent actions are applied from the point of view of the Thesis of Urban Development and Renewal of the Environmental Housing Unit Guaire Superior Sur.

The plan formulated by the Metropolitan Office of Urban Planning in the General Plan of Caracas 1970-1990, designates the zone in reference with the character of an area that has attributes to function with activities of a central type, and communal reach, such as services, intensive manufacturing and residence of high density. However, these plannings will materialize if we start the kind of program of urban renewal that will stimulate this role of central area, by means of the overcoming of the principal problems that affect the Zone, which is, in a way, coincidental with what is expressed in this Thesis.

- I ZONE UNDER STUDY
- a. Demarcation
- b. Physical Characteristics
- c. Use of the land
- d. Population and Socio-economic
 Characteristics
- e. Sectorization
- f. Fluxes
- g. Zoning

I. ZONE UNDER STUDY

The zone under study that for purposes of this work is called Antimano Sub-Center, is located to the southwest of the urbanized area of Caracas, precisely where the valley of the same name begins. With respect to the Environmental Housing Unit Guaire Superior Sur of which the Antimano Sub-Center is a component, its location is to the north of it.

The distance from Antimano to the center of the City is of nine kilometers.

I. a. DEMARCATION

The sub-center Antimano is enclosed between the urban context made up by the Sub-Centers of La Vega, Montalban, Caricuaio and Macarao, which constitute the E.H. U.G.S.S.

The zone under study is located to the South-West of Caracas, right after the point known as La Vuelta del Pescozon and between the highway to Caricuaio and the road to El Junquito, and it occupies approximately an area of 550 hectares and is limited to the north by the road to El Junquito to the east by the urbanization Colinas de Vista Alegre and the hospital of social security: to the south, by the Francisco Fajardo highway and the River Guaire: and to the west, by the cliffs that drop from the road to El Junquito and the narrow valley located between them.

I. b. PHYSICAL CHARACTERISTICS .

Topographically, the zone presents very defined characteristics. The north part is made up of very steep mountain side: to the south, the zone has relatively flat areas. The proportion of the flat areas and the steep ones varies from west to east; in the western side the undulated areas predominate, while the flat part is very narrow, and following the same directional route, at arriving to what - could be considered the center of the zone, the mountainous part reaches almost to the south limit, reducing the flat areas to a very narrow strip. Toward the east, the flat areas are predominant reaching into the mountain and creating the small valleys of El Algodonal and La Yaguara.

Geologically, it is worth mentioning that the Zone has been affected by exploitation of sand and stone mines; as well as the erosion caused by the dredging and destruction of the fields of natural drainage. All this brings to mind the unstable geological conditions of the hills inhabited by poor neighborhoods.

I. c. GENERALIZED USE OF THE LAND

The type of activities or predominant uses of the Sub-Center can be described in the following way: Toward the hills the development of poor neighborhoods is predominant, - with different degrees of stability. To the west of Antimano, the activities of the residential and commercial type - are predominant, preserving yet housing of the single family type. To the east, the Zone serves as settlement to activities of industry and storage and to the medical assistance buildings of El Algodonal.

I. d. POPULATION AND SOCIO-ECONOMIC
CHARACTERISTICS

Based upon estimations of census data, counting by way of aerophotometry and other sources of information, the Antimano sub-center has a population of approximately 100,000 inhabitants. From this total, 80% live in 42 barrios located in the hillsides and the rest in the lowlands. With respect to level of family income, housing and needs of the resident population, the Antimano Sub-Center reproduces with great approximation the same features that define the other sub-centers, in the sense, that, being the Environmental Housing Unit the product of a social, and political process, there will exist evident differences in accord with the major or minor material affluence and the degree of satisfaction of the community.

i. e. SECTORIZATION

The patron of urbanistic development of the Sub-Center comprehends various sectors. The undulated part to the northwest, still remains in its natural state. Immediately to the east and to the south of the Zone are the mountainous terrains where spontaneous settlement has taken place, which are criss-crossed by a rudimentary system of roads. To the south and west of the area of such settlements is the flat part of Antimano, that conforms a relatively narrow strip from northeast to southwest. To the extreme of this is the town of Antimano and the Zone of emergency housing of Mamera. Toward the center continues the already described narrow strip where the mountains, practically reach the River Guaire. The Eastern part of this Sub-Center has developed partially in a controlled manner, with parcels of considerable surface, equally with the buildings that occupy them. All these areas gather in five sectors actually identified by the name itself, by the activity predominant in them, by the topographical accidents and by the way in which the population flux takes place. These sectors are: Mamera, Antimano, Carapita, El Algodonal and La Yaguara.

1. The Mamera Sector, to the west of the Sub-Center, includes the part correspondant to the flat area located between the river Guaire and the hills, where a development of emergency dwellings exists, resulting from the necessity of providing housing for injured groups coming from the zones of the metropolitan area that have been affected by the environmental and physical deterioration of the City of Caracas. Within this same sector is located an area known as the valley of Mamera, which starts at the Antimano - Carcicua road, towards the north and does not possess localized uses.
2. The Antimano Sector, comprehends Antimano itself and the slowly climbing area toward the hills to the north of the same. This area contains mostly deteriorated buildings used principally by commerce, workshops, civil offices and residences of low density with some services of communal type. The zone of the hills presents a patron of barrios, whose population drain the center, generating interchange of fluxes and demand of services of great importance.
3. The Carapita sector is defined as such sector given the importance of the quantity of population that inhabits its hills and the degree of unity that its barrios have acquired. This population spreads itself over the inter-communal Avenue of Antimano in a narrow zone at the foot hills in which is manifested a great demand of services by its characteristics of a center of interchange of fluxes.
4. The sector of El Algodonal comprehends the valley of the same name, limited to the north, east and west, by hills and, to the south by the inter-communal Avenue of Antimano. It is presently occupied by non-consolidated industrial zone, some residences of institutional uses,

such as the installations of the Venezuelan Council on Children and the anti-tuberculosis hospital "Simón - Bolívar".

5. The sector of La Yaguara is also a valley limited by hills in its extreme northeast and west, and by the Francisco Fajardo highway to the south. This sector, crossed by the inter-communal Avenue of Antimano from east to west, is sub-divided in: Sub-Sector North, crossed in the North-South sense by the road to El Junquito and occupied by the Industrial Urbanization La Yaguara of satisfactory characteristics as such; and the Sub-Sector South, occupied basically by contaminating industries that should be removed on the basis of recent decrees from the National Executive.

I. f. EXISTING FLUXES

In relation to road facilities, the Sub-Center is serviced by the Francisco Fajardo highway being this what connects it to the rest of the city. Second in importance is the Inter-Communal Avenue of Antimano, that connects it with the other Sub-Centers of the E. H. U. G. S. S. and serves in major proportion the different sectors that form the Antimano Sub-Center. In third place, we have the road to El Junquito, connecting the zone to the North East of the city.

These road characteristics determine, jointly with the development of the poor neighborhoods located in the hills, the principal fluxes of the Sub-Center which have been subdivided into four hierarchies that deal with movement of people, goods and information:

First: The flux that is established between the Antimano Sub-Center and the rest of the city by means of the Francisco Fajardo highway.

Second: The flux established between the different sectors of the Sub-Center through the Inter-communal Avenue of Antimano and the road to El Junquito.

Third: The flux established between defined sectors of barrios and others such as El Algodonal, with the Inter-communal Avenue of Antimano which, at the same time, generate points of service.

Fourth: The flux established between the different neighborhoods and the Avenues that connect them with the other road systems of the Sub-Center.

I. g. ZONING

The present zoning outlines for the area under study have been established in the ordinance of Zonification of the Departamento Libertador. Within such ordinance we can find, categories of residential areas; local commerce; industrial commerce and light industry. There can also be found special regulations of urbanization; green areas; buildings for public use; of educational and religious assistance; national and municipal reserve and, of adjoining areas.

This zonification will not stimulate an integral development of the Zone since it is based in artificial divisions, based on the parceling out and of the established uses. On the other hand, the dynamics of the transformation of the City itself forces the evaluation of these categories of uses and densities of construction, with the ends of intensification and rationalization of the use of space, in function of how it is conformed by the geographic accidents, by the activities taking place and those it proposes to motivate: drainage of fluxes, spacial relations and by the characteristics of the community under study.

II PROPOSITION

- a-. Opportunities for Urban Renewal Action**
- b-. Concepts and Criteria for Urban Design**
- c-. Population of Design and its Demands**
- d-. Sectorization and Programming of Areas**
- e-. Implementation**

The proposed Plan, given the global focus of the Sub-Center contributes to the recognition of the diversity of the situations that must be the objects of treatment and reinforces the THESIS OF URBAN RENEWAL as the capable instrument to speed the transformation of decadent urban sectors in areas of the quality of urban life to which it aspires. In consequence, its final end is to give answers of space and equipment to such sectors, from the determinants of the physical medium, of the social and economic factors of the present system, all of that in function of the interests of the community and of coherent manner of outlines and policies formulated.

The Plan of Renewal proposed for this Sub-Center, contemplates the treatment of problems that concern not only not consolidated development, whose principal feature is the lack of urban services; but also to developments with an advanced degree of unity where a certain condition of deterioration is predominant.

Equally, problems of residential and non-residential use, and demands of communal services and of infra-structure, will be treated. Of particular importance, is the need to incorporate as determinants of the design, the characteristics and effects of the road plans, specially those generated by the Metro Project. From this point of view, the process of revitalization has turned into something Rigid and slow, due mainly to the fact that it presupposes a unique agent of renovation, responsible for the execution of all the stages of the process and of the corresponding investments.

On the other hand, the above mentioned experiences have found another limitation by not including the effective participation of the community -through diverse forms- and therefore, having reduced its possibilities of intervention in the making of decisions; this is, of the development of a conscient activity in the framework of the City by means of the help to the creation and functioning of mechanisms of communication between the national centers and the popular majorities, or by the activation of the organization of such majorities in cooperative and self suggested efforts.

- 7-. The renewal is proposed as an incremental process, in stages of development, which will make for a more flexible execution of the components of the plan.

In every case, it should be clear that the implementation of a Program of this nature will imply the necessary removal of some industrial installations, in accord with the policies of de-concentration of those not in harmony with the urban facts.

All these reasons coincide in the affirmation of a high priority to the Antimano Sub-Center as an object of Renewal, in comparison with other Sectors of the City.

II. b. CONCEPTS OF URBAN RENEWAL

This diversity of opportunities and situations has led to the establishment of various concepts of Urban Renewal, in accord with the problem areas that are proposed for specific treatment:

The first of these concepts is the one with applications to the zones of spontaneous settlement. For these we propose the implementation of a pilot experience of what could be qualified as a focus of Urban Renewal appropriate to its nature and to the dynamics and magnitude of the problem. In this sense, the process should be taken advantage of and channelled to the progressive self-betterment that these communities spontaneously realize by means of:

- Programs that provide public and communal services;
- The betterment of the conditions of access to the barrios as well as to internal circulation;
- The recuperation of creek beds that have been invaded, and equally, of the terrains that present problems of stability, with the object of recovery of the natural flow of waters and to the increment of the zone of oxygenation.
- The relocation of the population subjected to physical danger due to instability of the land;
- The introduction of new buildings, residences and services where that could result most suitable;
- The possession of the land; we propose a formula that will permit the expropriation of the land occupied by the poor barrios, and sell them later, to the up to now, illegal occupants of the same. To dispose of a certain tenancy of the land will produce a major motivation in the residents for the better-

ment of dwellings and communities.

This action will imply, equally, that new financial resources will be opened to the communities through the mortgage banks.

The previous focus is based in two fundamental premises:

- To make HOUSING a way of life in this community and,
- To increase the efficiency in the use of the resources, as a consequence of more realistic planning.

The foreseen solution centers its attention in the development of the environmental conditions which, even though being decisive in the well-being of the population, cannot be supplied only by their own initiative. Those conditions make reference to the public services of infra-structure; to the provision of areas of educational recreation and supply; to the services of health, security and protection, as well as to the works of urbanism that contribute to the betterment of the physical surroundings: treatment of ditches, sewage works, movements of land and reforestation and to the circulation facilities.

Within this first concept, it is worth it to add that, to the ends of its concretion, it starts from the supposition of the utilization of the agents external to the process of renovation and supply of services, jointly with the ones of the population itself, "without compromising for social acts those other resources that could or should be assigned to works of reproductive character".

The second concept corresponds to the activities of intensive industrial nature and with characteristics of operation that make them incompatible with the politics of industrial decentralization, making the removal necessary. In this case, a re-urbanization of the land is planned to dedicate them to the commercial-industrial use, warehouses and complementary services of these activities.

For this purpose, expropriation of lands and betterments must take place, also demolition of existing structures and the integration of the property. Once the land has been integrated and reordered, a new patron of division will be established and a fixation of the characteristics of construction will be set, to the development of the services of roads and infra-structure, and to the introduction of new buildings. In this way, there will be a response to the growing demand of space for uses such as the proposed here, within a systematic program of location of areas of work of the second and third natures in the City. This offer of employment contributes to absorb the active population that places itself in this or that Sub-Center of the Environmental Housing Unit Gaire Superior Sur. In the same way, the action of renewal makes reference to the process of revision of the conditions of the order and the operation of the organized industrial uses existing in the Sub-Center. This work will mean the rectification of the roads, development of parking facilities, loading and unloading areas, and also the implement of areas typical to an industrial concentration (services of protection and security, day care centers, popular lunch rooms, and syndicate headquarters) with the subsequent special regulation for this sector of activities.

The third concept contemplates specific actions for the traditional area of Antimano which can be summed up as:

- The elaboration of a plan of reordering the entire urban area that will contribute to its function as the nucleus of the system of Sub-Centers that make up the Unit.
- The development of a road project that will rationalize the circulation and the sector.
- The study of environmental quality, specially designed to treat historical aspects.
- To develop the project Service Center of the Borough, which could comprehend activities such as court house, post office, offices for dependencies of the technical police, traffic police, identification, national and municipal rent, etc., in addition to rental areas for public and private offices.
- Development of residential projects of high density, with the services demanded by them with the object of granting a maximum of hours of usage of urban space and of the concept HOUSING.

The fourth concept that has been elaborated to deal with a Sub-Center such as Antimano, has to do with the proposition of development of residential uses of high density. In this way, the flat lands in the zone of study will be utilized more rationally.

II. c. DESIGN POPULATION AND ITS DEMAND

Population of design = 120.000 inhabitants

Distribution according to age:

Edades:	Percentages	Inhabitants
From 0 to 4 yrs.	17.66	21.192
From 5 to 6 yrs.	6.46	7.752
From 7 to 12 yrs.	16.18	19.416
From 13 to 15 yrs.	7.31	8.772
From 16 to 18 yrs.	6.94	8.328
Over 19 yrs.	45.45	54.540

ACTIVITY (m ² /Hab)	SUB-CENTER . . . A N T I M A N O
Population of Design	120.000 hab.
Residence: 16.666	1.999.920 m2
Education: 4.105	492.000 m2
Pre-school: 0.585	70.200 m2
General Ed.: 3.100	372.000 m2
High School: 0.420 (Diversified Cycle)	50.400 m2
Culture: 0.500	60.000 m2
Assistance: 0.400	48.000 m2
Recreation: 8.000	960.000 m2
Parks: 2.000	240.000 m2
Passive Recreation: 2.000	240.000 m2
Active Recreation: 4.000	480.000 m2
Cult: 0.040	4.800 m2
Protection: 0.083	9.960 m2
Supply: 2.000	240.000 m2
Cementary: 0.150	18.000 m2
Offices: 2.000	240.000 m2
Public: 1.000	120.000 m2
Private: 1.000	120.000 m2
Industrial: 1.666	199.920 m2
Area (in hectares)	625.950 Ha

ACTIVITY (M2/Hab)	SUB-CENTER	SECTORS										
	ANTIMANO	A	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3
Population of Design	120.000 hab.	75.000	10.500	4.000	14.500	-----	-----	8.000	8.000	-----	-----	---
Residence: 16.666	1.999.920 m2	1.249.950	144.993	66.664	241.657			133.328	133.328			
Education: 4.105	492.000 m2	307.875	43.102	16.420	59.522	-----	-----	32.840	32.840	-----	-----	---
Pre-school: 0.585	70.200 m2	43.875	6.142	2.340	8.483	-----	-----	4.680	4.680	-----	-----	---
General: 3.100	372.000 m2	232.500	32.550	12.400	44.950	-----	-----	24.800	24.800	-----	-----	---
High-school: 0.420	50.400 m2	31.500	4.410	1.680	6.090	-----	-----	3.360	3.360	-----	-----	---
Culture: 0.500	60.000 m2	37.500	5.250	2.000	7.250	-----	-----	4.000	4.000	-----	-----	---
Assistance: 0.400	48.000 m2	30.000	4.200	1.600	5.800	-----	-----	3.200	3.200	-----	-----	---
Recreation: 8.000	960.000 m2	600.000	84.000	32.000	116.000	-----	-----	64.000	64.000	-----	-----	---
Parks: 2.000	240.000 m2	150.000	21.000	8.000	29.000	-----	-----	16.000	16.000	-----	-----	---
Passive Rec: 2.000	240.000 m2	150.000	21.000	8.000	29.000	-----	-----	16.000	16.000	-----	-----	---
Active Rec: 4.000	480.000 m2	300.000	42.000	16.000	58.000	-----	-----	32.000	32.000	-----	-----	---
Cult: 0.040	4.800 m2	3.000	420	160	580	-----	-----	320	320	-----	-----	---
Protection: 0.083	9.960 m2	6.225	870	332	1.203	-----	-----	664	664	-----	-----	---
Supply: 2.000	240.000 m2	150.000	21.000	8.000	29.000	-----	-----	16.000	16.000	-----	-----	---
Cemetery: 0.150	18.000 m2	11.250	1.575	600	-----	-----	-----	1.200	1.200	-----	-----	---
Offices: 2.000	240.000 m2	150.000	21.000	8.000	29.000	-----	-----	16.000	16.000	-----	-----	---
Public: 1.000	120.000 m2	75.000	10.500	4.000	14.500	-----	-----	8.000	8.000	-----	-----	---
Private: 1.000	120.000 m2	75.000	10.500	4.000	14.500	-----	-----	8.000	8.000	-----	-----	---
Industry: 1.666	199.920 m2	124.950	17.493	6.664	24.157	-----	-----	13.328	13.328	-----	-----	---
AREA (in hectares)	625.95 Ha	303.75	25.50	9.00	40.00	13.50	35.45	44.00	37.00	27.50	75.50	13.75

II. d. SECTORIZATION

The plan of Urban Renewal of which we are talking, does not have the usual rigidity formulated by this type of action. On the contrary, within the format and general dimensions of the Guaire Superior Sur Environmental Housing Unit, the adopted aim recognizes the variety of problems to be faced and the possibilities of intervention of different agents of development. This gives the Program flexibility to adjust to those situations without losing its indicative and prospective characters, gathering the fundamental intention of the optimal transformation of the geographic space.

According to this, we take into account that which is formulated by the Plan General Caracas 1970-1990, which establishes for the Sub-Center, outlines dealing with activities of central, residential, industrial and institutional types; of the urban functioning of the corresponding area to the plannings of the proposed Thesis for Urban Renewal. In the same way, we have chosen to make propositions that refer themselves directly to the different sectors and which are expressed in the following manner:

- 1-. For the zone of barrios in the hills upward from the inter-communal avenue, we do not propose their removal, but we support an improvement in its levels of services through a Plan Of Special Order of the barrios, creating the possibilities for the continuous betterment of the dwellings, following the concepts Urban Renewal expressed previously.
- 2-. In the parts of the Valley of Mamera, terrains to the north of the cementary of Antimano and Valley of El Algodonal, residential uses of high density will be introduced, with the objective of producing an important offer of residencies that for the moment reside in the barrios, but that should be relocated for being located in zones of high danger and, which are the product of the normal growth the Sub-Center.

- 3-. For the traditional area of Antimano, we are contemplating actions that will revitalize its function as principal center, concentrating its services to the community and uses of commerce, offices, residencies and other s.
- 4-. In the terrains to the west of Antimano and to the south of the Industrial Urbanization La Yaguara, the development of spaces for industrial commerce and warehouses will be stimulated, having these been ignored in other parts of the city. At the same time, opportunities for employment will be developed.
- 5-. For the industrial area of La Yaguara we propose actions of equipment and regulation that will insure better functioning of these activities and their compatibility with the rest of the Sub-Center.
- 6-. In the terrains to the north of the Valley of El Algodonal advances, on the part of the Ministry of Sanitation and Social Assistance, a center for medical assistance that will serve the Zone, in what used to be the "Simón Bolívar" Hospital.

Taking into consideration what has been exposed, the determinants of the natural medium, the characteristics of urban development and the analysis of the vocations of use for its component areas, the zone has been divided into three principal Sectors:

Sector "A":

Area of Spacial Order of the Barrios

Sector "B":

Area of Residential and Central Activities of High Density

Sector "C":

Area of Industrial Uses

Sector "A":

AREAS OF SPACIAL ORDER OF THE BARRIOS

This sector is situated at the northwest and west sections of the Zone in Study, in rolling terrains and it occupies an area of approximately 360 hectares. Boarders: To the north with the road to El Junquito and with non-urbanized terrains; to the east, with the valley El Algodonal; to the south, with the inter-communal avenue and the town of Antimano and, to the west, with terrains partially occupied by scattered developments.

Sector "B":

AREA OF RESIDENTIAL AND CENTRAL ACTIVITIES
OF HIGH DENSITY

Occupies relatively flat lands and covers 200 hectares. Borders: to the north, with the hill zone; to the east, with the hillside of the mountainous part and with the valley of La Yaguara; to the south, with Francisco Fajardo; and to the west, with terrains partially occupied by scattered developments.

This sector, "B", at the same time has been divided into:

- B1 Area of the town of Antimano, situated to the west of the Sub-Center. It covers 26.5 hectares.
- B2 Carapita, area of complementary services of Antimano. It is a portion of flat terrains with a surface of approx. 9 hectares.
- B3 South part of the valley of El Algodonal, covers an area of approx. 41 hectares.
- B4 Flat part to the north-east of Antimano which is engaged for the development of a highway distributor between the Fajardo highway and the inter-communal Avenue of Antimano. Its area is approx. 13.5 hectares.
- B5 North part of the valley of El Algodonal, site of the future Center of Medical Assistance, the surface of this Sub-Center is 35.5 hectares
- B6 Valley of Mamera, with the exception of those flat parts destined for industrial use, it covers an area of 44 hectares.
- B7 Lands to the north of the cementary, which belong to Centro Simón Bolívar, with a surface of 37 hectares.

Sector "C":

AREA OF INDUSTRIAL USES

Comprehends three Sub-Sectors, which are located at the east and west extremes of the Zone under study, over flat lands, with an approximate extension of 125 hectares.

- C1 Formed by the strip located between the Francisco Fajardo highway and the Inter-communal Avenue of Antimano with a surface of approx. 27.5 hectares.
- C2 The valley of La Yaguara, bordered by the hill-sides on the north and by the Inter-communal Avenue to the south. Covers a surface approx. 75.5 hectares.
- C3 Comprehends the flat part of the valley of Mamera located between the old road of Los Teques and the Francisco Fajardo highway, with a surface of 24.75 hectares.

SUMMARY OF THE USES AND DENSITIES PROPOSAL
OF ANTIMANO SUB-CENTER

Sector	Usos Permitidos	REGULACIONES							
		Area Bruta (Ha)	Area Neta (Ha)	Población (Hab)	Densidad Bruta (Hab/Ha)	Densidad Neta (Hab/Ha)	Ubicación (%)	Construcción (%)	
A	Viv. Unifamiliar y Bifamiliar. Comercio Local	303.75	151.88	75.000	245	495	50	100	Barrios en colinas
A'	Area Verde	-----	-----	-----	-----	-----	-----	-----	-----
B1	Viv. Multifam. Comercio Comunal	26.50	13.25	10.500	396	792	50	240	Casco Antimano
B2	Viv. Multifam. Comercio Vecinal	9.00	4.50	4.000	445	888	50	220	Carapita
B3	Viv. Multifam. Comercio Vecinal	40.00	12.00	14.500	360	1.208	30	300	Valle de El Algodonal
B4	Area Recreacional y Area Verde	13.50		-----	-----	-----	-----	-----	Distribuidor Vial
B5	Area Médico-Asist, Docente y Religiosa	35.50		-----	-----	-----	-----	-----	Zona Médico-Asistencial
B6	Viv. Multifam. Comercio Vecinal	44.00	13.20	8.000	180	606	30	150	Valle de Mamera
B7	Viv. Multifam. Comercio Vecinal	37.00	11.10	8.000	215	720	30	180	Norte Casco Antimano
C1	Comercio Industr. y Depósitos	27.50	13.75	-----	-----	-----	50	200	Parque Industrial (Este) La Yaguara
C2	Industria Liviana	75.50		-----	-----	-----	75	150	La Yaguara
C3	Comercio Industr.	24.75	12.37	-----	-----	-----	50	200	Parque Industrial (Oeste) Mamera

the actual industrial uses will have been initiated; the Sector of the Valley of El Algodonal (B3), as an important offer of residencias and services; and, finally, the action over the Sector of La Yaguara (C2), that would complement jointly with the others the acquisition of the revenue granted by the works and of the totality of the Spacial Order of the Barrios.

The priority of the Sector B-4 is not mentioned, the Francisco Fajardo Highway - Inter-communal Avenue and B-5, Medical Assistance Center, since other work by other public organisms (M.O. P. AND M. S. A. S.) is being performed.

II. e. IMPLEMENTATION

1-. PRIORITIES OF EXECUTION

In function of the plans described previously, we propose a scheme of priorities for the execution of the Plan of Urban Renewal of Antimano.

The first action should correspond to the works proposed for the Sector of Spacial Order of the Barrios (A); particularly those that contemplate the zones of highest danger and those corresponding to the primary infra-structure of the same.

Because of the fact that the actions taken over the zones of danger demand residential developments to absorb that population, the developments provided for in Sectors B6 and B7 should be initiated.

In the second term, we plan two important actions: one, conditioned to the existence of a residential offer, like those provided for in B6 and B7, will permit the relocation of the population residing in the contemplated areas to the Industrial Park of the West (C3), and begin such development with the object of generating income in benefit of the Spacial Order of the Barrios. The other is, the action over the central area of Antimano, due to its political, social and economic aspect as well as in the rendering of services at the level of the community.

In the third place, and considering that the previous actions follow an accelerated course due to their importance, the following action will begin:

The Carapita Sector (B2) as final consolidation of the barrios that conform it; the sector of Industrial Park of the East (C1), because of which the movement of

2-. INSTITUTIONAL IMPLEMENTATION

In the same way that the planning should take place for the Environmental Housing Unit Guaire Superior Sur, this development would require the participation of diverse public organisms.

It corresponds to Centro Simón Bolívar, to initiate the steps of affectation of the Antimano Sub-Center, to proceed with the plans of expropriation and adjudication of lands to the actual occupants of the poor barrios and reurbanization of the flat lands.

Parallel to this, corresponds:

- a-. To elaborate the plans of financing and purchase of lands, in cooperative form on the part of the actual occupants of the poor neighborhoods, through the national system of savings and loans.
- b-. To plan the actions that could develop jointly with the National Institute of Housing, such as the development of Sector B3.
- c-. To grant the participation of industry in the industrial developments proposed.
- d-. Compromise, in accord with Decree N° 332 of the actual President of the Republic, the collaboration and participation of the Public Organisms therein mentioned, to the correct interpretation and application of Urban Renewal.