# EXPLORATIONS ON COLLECTIVE ORDER FOR INDIVIDUAL IDENTITY:

An alternative approach for housing

by Josefina Garcia Marquez Bachelor of Architecture University of Florida Gainesville, Florida 1985

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE MASTER OF ARCHITECTURE AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE. 1987

Signature of the author

Josefina Garcia Marquez
Department of Architecture
May 8,1987

San Wampler
Associate Professor of Architecture
Thesis Supervisor

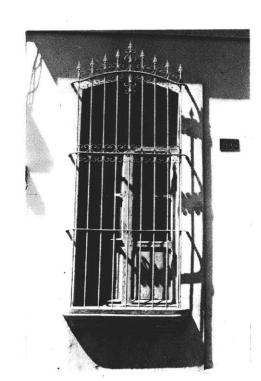
Accepted by

Julian Beinart
Chairman
Departmental Committee for Graduate Students

© Josefina Garcia Marquez 1987

The Author hereby grants to M.I.T. permission to

The Author hereby grants to M.I.T. permission to reproduce and to distribute publicly copies of this thesis document in whole or in part.



il

# EXPLORATIONS ON COLLECTIVE ORDER FOR INDIVIDUAL IDENTITY:

An Alternative approach for housing

by Josefina Garcia Marquez

Submitted to the Department of Architecture on May 8, 1987 in partial fulfillment of the requirements for the Degree of Master of Architecture.

#### **ABSTRACT**

This thesis is an exploration on generative collective order as establishing a physical built framework for individual identity. The emphasis on the collective stems from the premise that while incremental building may be integrative at the level of the dwelling, it may not be so at the urban level. This study proposes an alternative approach to the meeting of the scales in which the relative values and freedoms at the various levels can be maintained under conditions of transformation.

A series of observations and analysis of the vernacular settlement *La Pastora* are done to understand the principles present at several scales in a context where variety follows rules that are legible and reproducible.

The site is analyzed with respect to its immediate context. The context is representative of three systems based on approaches to building at the urban and dwelling levels.

The design for the site developes a built framework that maintains the transferable principles present in the context generating variations and aggregations that are associative to individual identity.

Thesis Supervisor: Jan Wampler Title: Associate Professor

#### **ACKNOWLEDGEMENTS:**

I want to thank Jan Wampler and Andres Mignucci, for they have been a source of inspiration and have encouraged and helped me throughout my thesis work.

I want to extend my gratitude to all those who cooperated on delineating the path to take.

To my family for their support and, specially, to Sofi for her help and frienship.



VI.

#### TABLE OF CONTENTS:

#### **ABSTRACT**

INTRODUCTION	2
OBSERVATIONS	4
LEVELS OF OBSERVATION	5
ContextLa Pastora	6
Plaza	10
Street	12
Unit	<b>1</b> 4
Elements	17
SITE	26
INTENTIONS AT THE COLLECTIVE LEVEL	28
FIRST BUILT DEFINITIONS ON THE SITE	30
EXPLORATION	38
ADAPTABILITY OF USE	39
TRANSFORMATION	41
THE FRAMEWORK	42
BIBLIOGRAPHY	71



Choroni, Venezuela.



Pueblo Nuevo , Venezuela.

# INTRODUCTION

Throughout the process of colonizing the Americas, the Spanish Crown attempted to create a homogeneous structure which would mark their presence in a new and ever changing landscape. Central to this effort are the set of guidelines known as the Law of the Indies - a planning policy to be implemented in all Spanish settlements. This law identified three main urban elements: the building block, the street, and the plaza. It also outlined rules for the position, direction, dimensions, their character and use.

Vernacular settlements which are traditionally thought of as enigmatic and anarchic, in Venezuela, follow the rules of the Spanish System.

It is intensive to observe a single urban idea in innumerable settings. A variety results that as a whole obeys the rules that to this day are legible and reproducible.

Throughout Spanish America, different materials, customs, economies, geographies, techniques and cultures concurred to the grid and the square. The same scenography for thousands of plays.

Today we find different stages in the development of the grid:

One finds towns that fully developed the grid layout and it has been transformed and subdivided further, becoming a very dense urban fabric.

Towns that were founded by the Spaniards which

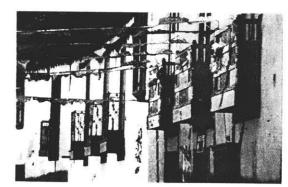
never accomplished the grid and grew somewhat randomly.

Towns in which a single house stands on each corner of the block representing an incomplete grid.

In the last quarter of the nineteenth century, Guzman Blanco who ruled Venezuela at the time, implemented significant changes to the city of Caracas which in turn extended to other provincial cities and towns. To celebrate the centennial of Simon Bolivar, Blanco organized a grand urban feast that forever changed the city's appearance and the nature of our vernacular architecture. Blanco planned promenades and boulevards to be built and had eaves replaced with cornices. In order to dress up the city for the celebration he required that neighbours repaint their houses with oil based paint which allowed for bright colors instead of the traditional quicklime.

People ornamented their houses with cornices and colors that differ from those of their neighbours. Privacy gained value and acceptance; the individual exerted dominion over the collective.

During colonial times, venezuelan architecture developed from a vocabulary based on restrictions. After the country's independence, the vocabulary was based on the illusion of resources. All the setlements share a repetitive and reproducible character which is based on principles that in time generate infinite variations and combinations.



Jaoji, Venezuela.



Capatarida, Venezuela.



### **OBSERVATIONS**

The observations done in La Pastora, Caracas, Venezuela, are directed toward establishing a system of categories which enables one to describe and compare formal structures. La Pastora also followed the planning policy of the Law of the Indies, the grided streets patterned around a main plaza. The analysis consists of identifying elements and relations at several scales of intervention: from the scale of the city, the collective level, to the scale of the unit, the level of the individual.

In developing these observations the emphasis is on the relationships between the elements rather than the elements themselves. Primary elements are by definition basic to the structure, if they are not present the reading at the urban level has no continuity. Therefore, it is essential to understand which are the primary elements and what are their relations.

In analyzing the relations, I have looked at position, direction, and a range of sizes of elements at several scales of intervention, from collective to individual.

"Experiments deal with intervention into what is explored. Observation leaves the world as we found it, and is the beginning of all research. It is not just seeing: it is seeing with detachment -- the suspension of knowledge and certainty. It is curiosity,

before the question is asked. The answer is the end of observation and the beginning of theory. The theory leads to understanding, and the understanding makes us see the world as we could not see it before. It allows us to see more which might lead again to observation.

Observation leads to a record -- a sketch, a photography. But the record is not an observation but the beginning of an answer." 1

#### LEVELS OF OBSERVATION

"Together the built form and organized space make up a **place** on a certain environmental level." 2

Observations were done in three levels.

The public-collective level: Settlement: urban form .

plaza: urban element

Level of the support: unit aggregations: street and

block.

Level of the individual: unit and elements.

Each level represents a different scale of intervention that deals with another scale and produces different relations. Each level builds up to a point where the next level has to take over and then the hierarchy at each level of intervention is clear and participates with the whole.

An order depends upon the possibility of indicating elements as similar or dissimilar, and their relations, repetition, contrast, and dominance. The recognition of similarities forms the basis for the concept of order. The similarities may be topological or may consist in an exact correspondence of all the properties of the elements.



La Pastora, Venezuela.

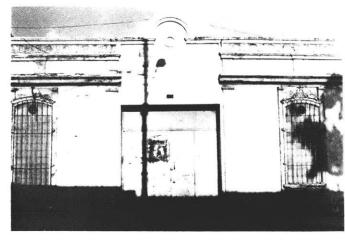
#### THE CONTEXT: LA PASTORA

The origins of the settlement date back to the 19th century. At first it was conceived as an isolated settlement from the city of Caracas. Like most Spanish settlements, *La Pastora* is organized around a square. Its physical structure is the product of an explicit system, based on "Las Leyes de Indias". The individual character of its buildings, however, are the result of an implicit system based on the building tradition, the culture, and the understanding of the tropics by the Spanish.

The grid laid down the blocks, but not essentially the units. Once a block was filled or completed, then another block would be defined. Then, the settlement grew as a series of rings of blocks that generated from the plaza. The facade zones of the units are a very important definition, for they delineate the difference between built and open space. "The figural quality of a settlement thus is not only determined by the single elements that constitute its skyline but also by the way the elements are grouped ... the figural quality of the settlement consists of two interrelated properties, a 'thing'-like built form and a space organized in terms of center path and domains." 3

The two systems, implicit and explicit, that produce the physical structure of *La Pastora* developed an environment in which collective and individual reinforce each other in a process of mutual definition. The variations of the system are at the individual-personal level and support the identity of the individual, while the explicit system maintains the order and integrity of the settlement at the collective level.

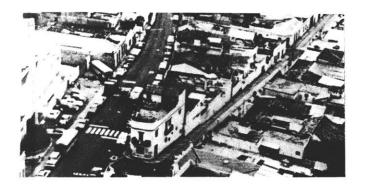
















Topography

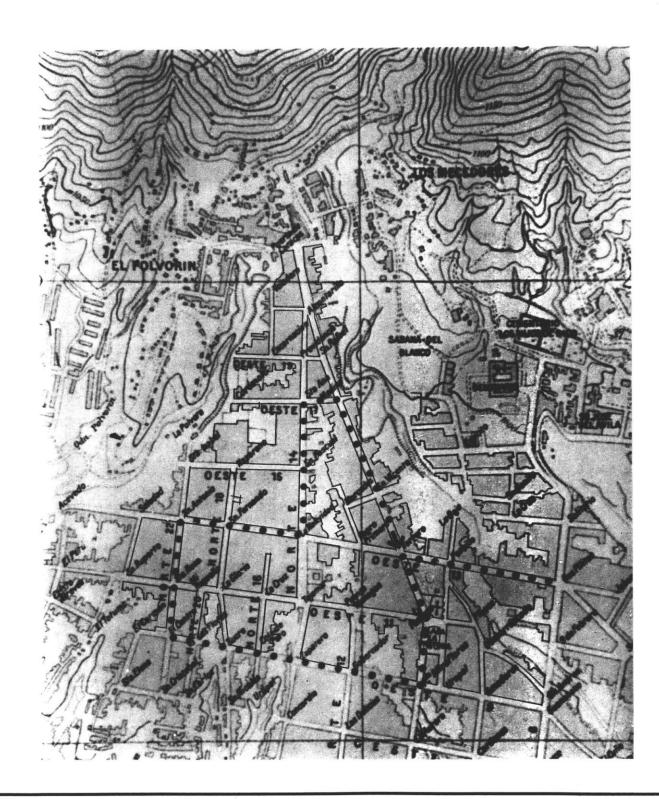
Landscape Study

#### Topography:

Not all Spanish-American towns could fulfill an ideal grid. All towns in one way or another had to mold to the landscape, to the existing circumstances.

Due to the accidental topography in the valley, access to *La Pastora* was difficult; therefore, it remained an isolated settlement until the 1950's. This is the reason why it retained its original organization and character while other settlements lost their coherence through time. Because of its accidental topography, the grid layout is transformed and adapted, producing a variety of sizes and shapes of the blocks. Although; units do not adapt to the topographical changes at the facades, they do so at the back or in the interiors of the units.

The breaks or accidental topography made it impossible to build in some areas according to the traditional explicit system of blocks. Therefore, the basins that existed were given to landscape, and today are inhabited by another system, an organic system, lanscape oriented in its form. It developes, superimposed on the spanish grid. These strips of landscape that cut across some of the definition of the Spanish system are important in order to understand how one system relates to the other and vice versa. Also, I was interested in seeing how the density of the settlement is in a way relieved by the freedom and fragmented qualities of the landscape and landscape forms.





looking North

#### THE PLAZA -- URBAN SOCIAL SPACE

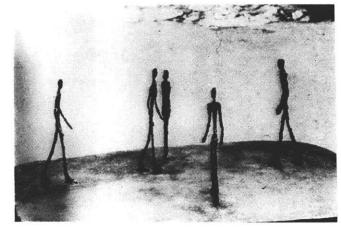
The plaza, "La Pastora", is the single open space for the settlement. Its surrounding uses, commercial and public buildings and a church reinforce its function of central social activity. The church at the north side appears as an independent figure standing out against a continuous undisturbed ground. The east, west, and south boundaries are presently pedestrian streets, which work very well as an extension of the social activities of the open space.

In analyzing the structure of the plaza as a whole, it was essential to understand the relation of the dominant element, the church, and the open space, the plaza. The powerfull presence of the church radiates so much energy and strength that it needs an open space to balance it. The plaza is at a lower level, carved into the hill, while the church stands higher on a base. Both elements complement each other, defining each other. They are further defined and contained by the fabric of the units that delineate the boundaries of the open space.

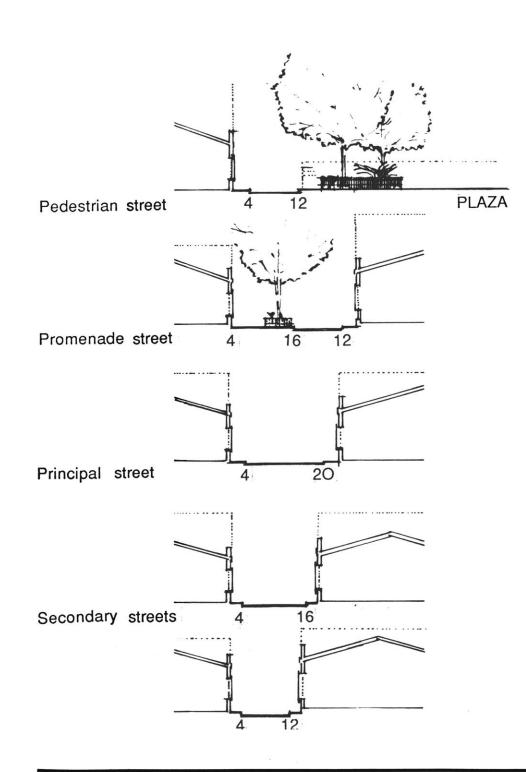


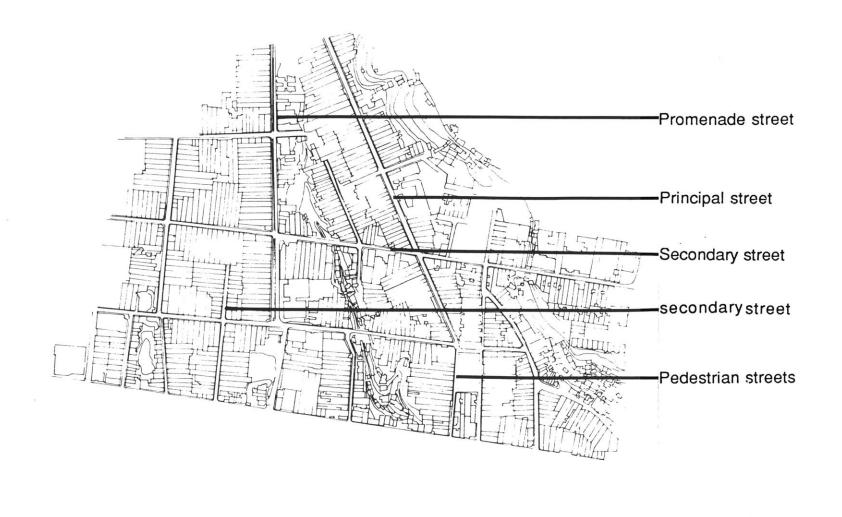






Project for a Square. by Giacometti.





#### STREETS

There are a variety of street types in the context, and this implies a variety of relations of units to street.

Principal street

Secondary street

Vehicular traffic

Promenade street

Pedestrian streets

Most streets converge at the central plaza or have some connection to it.

The narrow streets provide the general framework of movement within the settlement. Even narrower secondary streets developed functionally, just to provide access to the units. There is a relation of the street with the height of the units on either side -- the proportion usually provides shade to the street, making it more habitable.

Streets like the promenade street, which is much wider and which probably was once a two-way street, have been transformed to one-way streets with one side pedestrian promenade filled with trees to again provide shade from the tropical sun.

Besides communicating the elements of the settlement, the street also function as public places of interaction.















#### THE UNIT

The area selected for the study is "Esquina La Cruz, Norte 16." There is a range of unit sizes and organization. On the west side of the street, lots get longer as you go up the hill. This is because of the corner units which make the 90 degree rotation. In this area there are two examples of how they are resolved. The corner unit, either follows the rest of the units horizontaly or vertically or it becomes an odd size that is then usually adapted to a public use. Lot sizes range from 30' to a maximum of 118' long. Because there are no receding units at the street, except one which was transformed, and the old facade was kept, the street is defined by a clear edge which can be read as a whole element. At the same time, by the use of color and texture the elements and alternations of the elevation surface read as individual elements.

Observations show how the basic units of each type change and transform, under different conditions and how the components and elements also respond to changing circumstances of topography, location and dimension.

"The construction of inward-looking dwellings with interior patios insured personal privacy, while the windows and balconies were the physical connection to the life that took place in the public space."3

There are three zones to every unit: a front zone which relates to the street, a central zone relating to the patio, and a rear zone which is either a service zone or an extension zone -- originally a second patio which later with additions is either given up or diminishes dimensionally.

The front zone consists of two elements: the zaquan and the front room (salon). Their position relative to each othre is constant, and their function is to make the exchange with the life at the exterior.

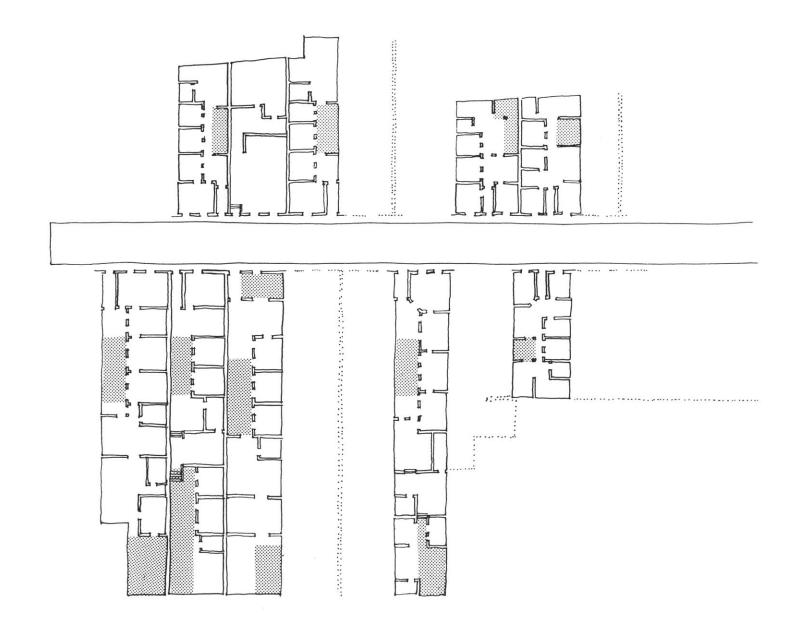
The patio zone, in the ten units studied, is the extension of the front zone to the interior light. Behind a fragmented screen are located the private quarters of the unit. This zone overlaps with the other.

The back zone consists mainly of service functions -collective quarters such as kitchen, dining and working areas.

The extension zone, most common in the longer units, consists of a second patio.

The relative position of these elements with respect to each other (zaguan-patio, patio-salon) and with respect to the exterior (salon-street) remained constant in all the units, which implies that their relations are constant. These zones represent a dimensional and organizational range that permits variation in these respects, while relations of the elements remain strcture the same way.





#### **ELEMENTS**

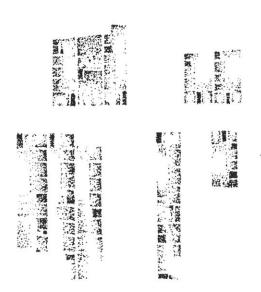
As a result of the analysis of the units, the elements basic to the structure, primary elements, are identified as:

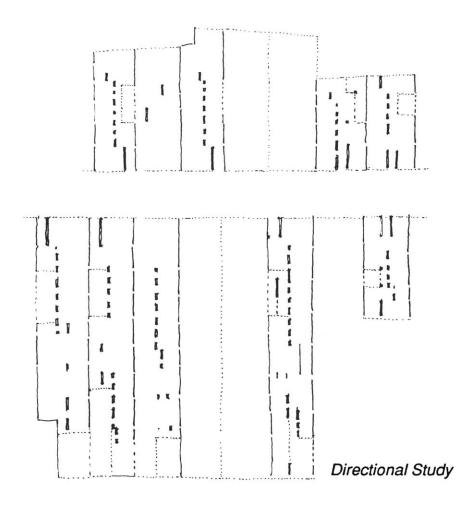
- 1 The Zaguan or entrance hall.
- 2 The Patios and terraces.
- 3 The Stairs.

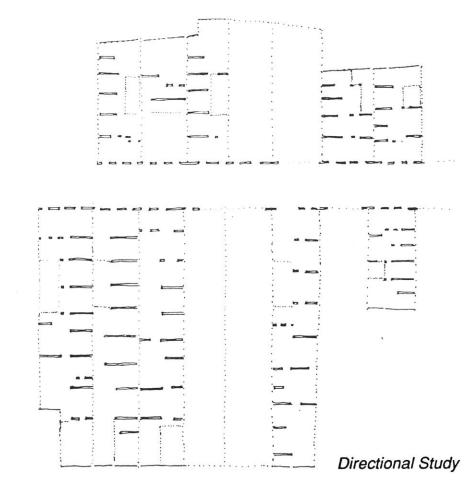
Each element organizes and defines a zone and its positions and character is integral to the rest of the unit.

Secondary elements in the unit were identified as:

- 1 The kitchen and service areas .
- 2 The Collective quarters. (salon and dining rooms)
- 3 The Private quarters. (bedrooms)





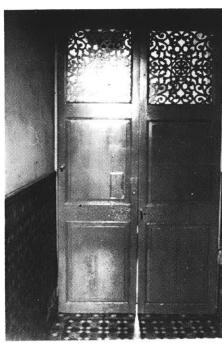


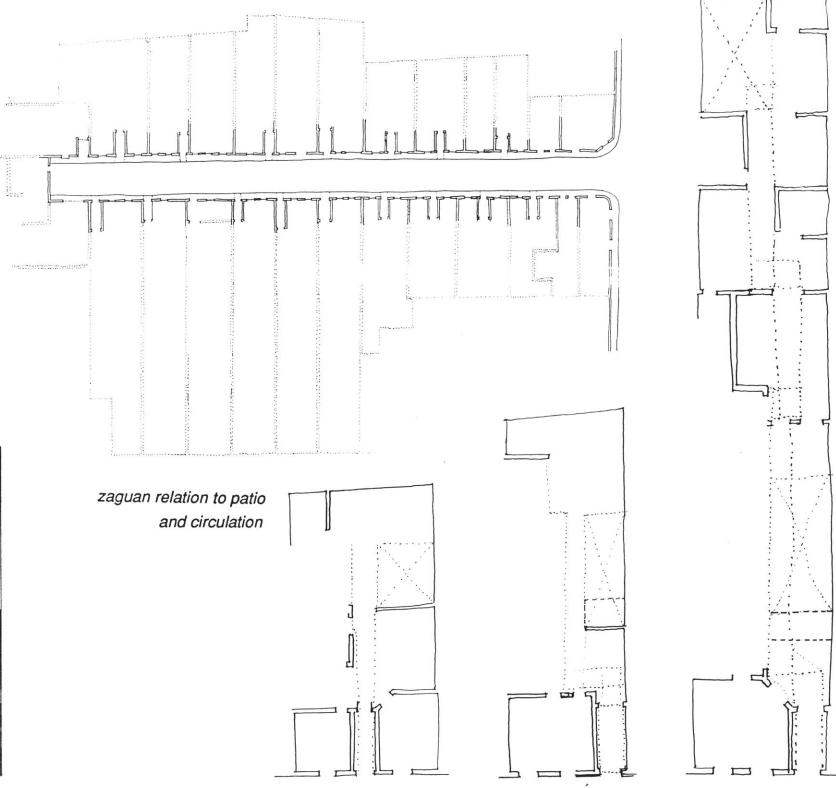
LIGHT STUDY

#### THE ZAGUAN

The Zaguan is the projection of the exterior to the interior of the house. It is "Like a small gap in a closed curtain, it provides an instant glance into the intimate world of the very heart of the house, the patio."5" Functional and aesthetic motivations merge and become ambiguous. The aperture is fundamental for ventilating the space within, which otherwise would be transformed into a trough of stagnant air. The zaquan begins to set up the sequence of moving toward light. When all the doors of the zaquans are open they offer a gallery of interiors, a series of intimacies as you walk the streets.







# front room relation to patio Front Room





#### SALON - FRONT ROOM

The room at the street side is a meeting social space, and is sometimes adapted to be independent from the house. It may function as a work space or as a small commercial space.

In most cases where the front room is the salon, the elements, windows and doors, are articulated as connectors to the streets. These elements are depicted as three-dimensional. for example, the openning of the windows extends at least 12" beyond the wall plane toward the street. On the interior, the lower part of the wall transforms to provide seating in the salon. Thus, delineation between public and private realms is established.

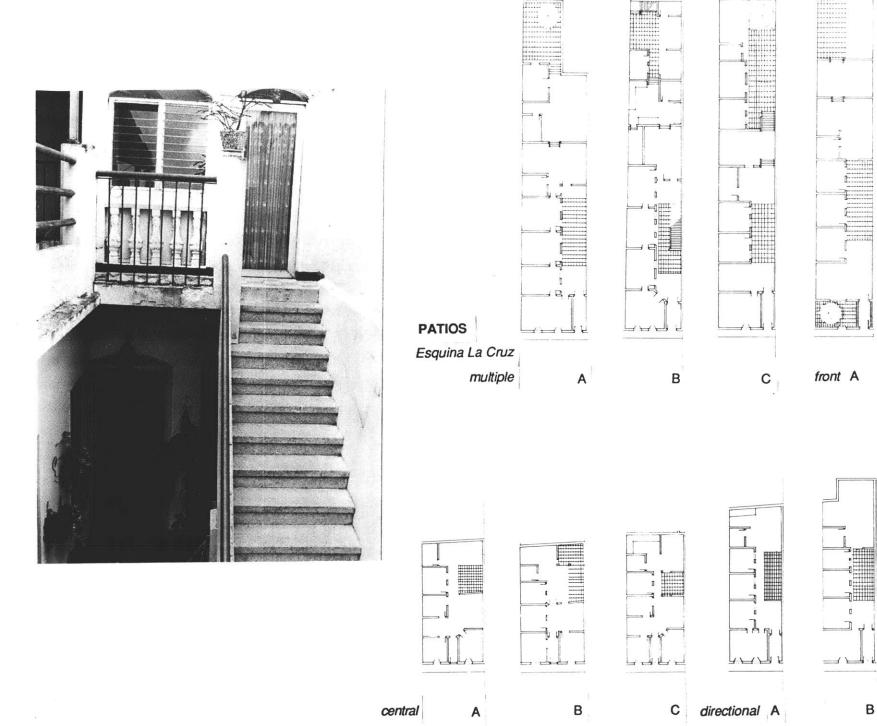
The physical connection to the life that takes place in the street, is further delineated by balconies, which create places to dwell at the edge.

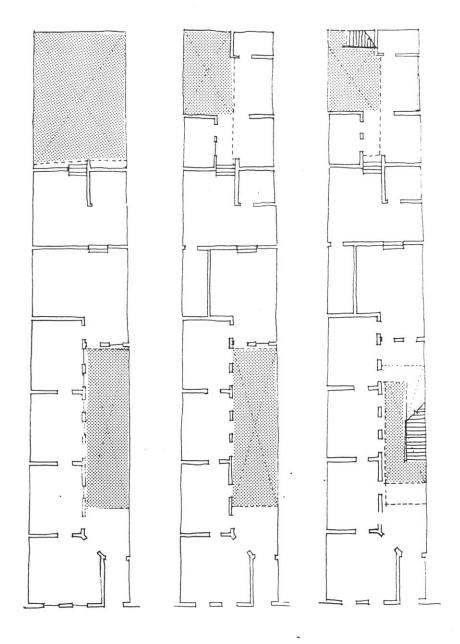
#### THE PATIO

The patio is located in the cental part of the unit. The main door stands at its end, and a gate ensures a flow of air and gives the buildings' occupants a view of the street. The rooms of the house, private quarters and collective quarters, are distributed around the patio. In some cases, circulation is separate, parallel to the patio with overhead cover. In other cases, it is through the patio, uncovered. This implies that there is a secondary circulation still parallel to the direction of the patio but through the rooms, The patio in the units studied is a directional element due to the narrowness of the units.

When there are two patios, the movement through the units reinforces the connection of the two patios. One can see clearly that the sequence of movement is from dark to light. The second patio, on the rear of the unit takes on functions of service. It becomes an extension of this zone whereas the central patio is an outdoor social room.

Elements of movement, such as steps and stairs, are associated with the patio and follow the movement toward light.









#### THE STAIRS

The stairs of the house take on different positions and sizes, depending on the control and ownership of the various floors. One thing remains constant in the units studied; it is that the direction of movement is coincident withthe stair flow. Therefore, the direction of circulation is the same on the first and second floor.

In addition, the stairs reinforce the sequence of movement from dark to light.

If the house has different tenants on each floor, the stairs will most likely be located in the zaquan. When the dwelling is occupied by one family or by an extended family, the stairs are located in the patio zone

#### THE FACADES

The elements of the facades are also important in shaping the identity of the place.

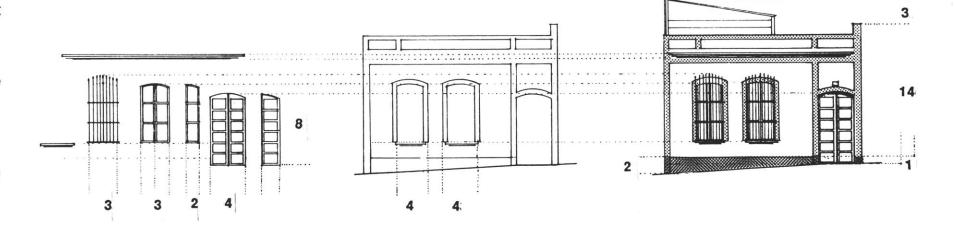
Entering-leaving, inside-outside, individual-collective, public-private, are all associations embodied within the facade. The facade of the dwelling is a zone supportive of the associations mentioned above. A dialogue between the zone and personally defined elements such as doors, windows, balconies is established.

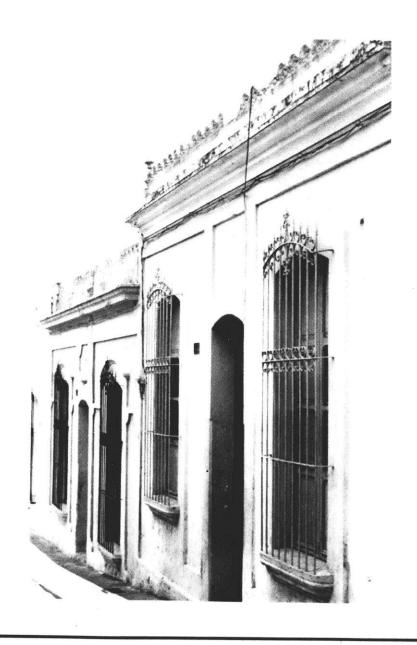
"If building walls are treated as space, zones that have some dimensions and volume, then the connection between interior and exterior is increased and there is the possibility for movement from one side of the edge to the other, as well as the possibility for activity to take place within the realm of the edge itself." 5

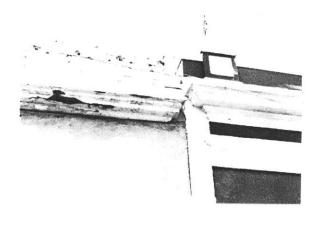
The projecting balconies, the windows, the cornice, and the zaquan form part of the vocabulary that structures this zone.

Elements such as the ever-present cast iron grilles and gates are all specifically designed to facilitate the ventilation of the units while ensuring protection.

Common to all these elements is the dual role of delineating what is public and what is private and modifying the effects of the tropical climate.











#### ORNAMENT

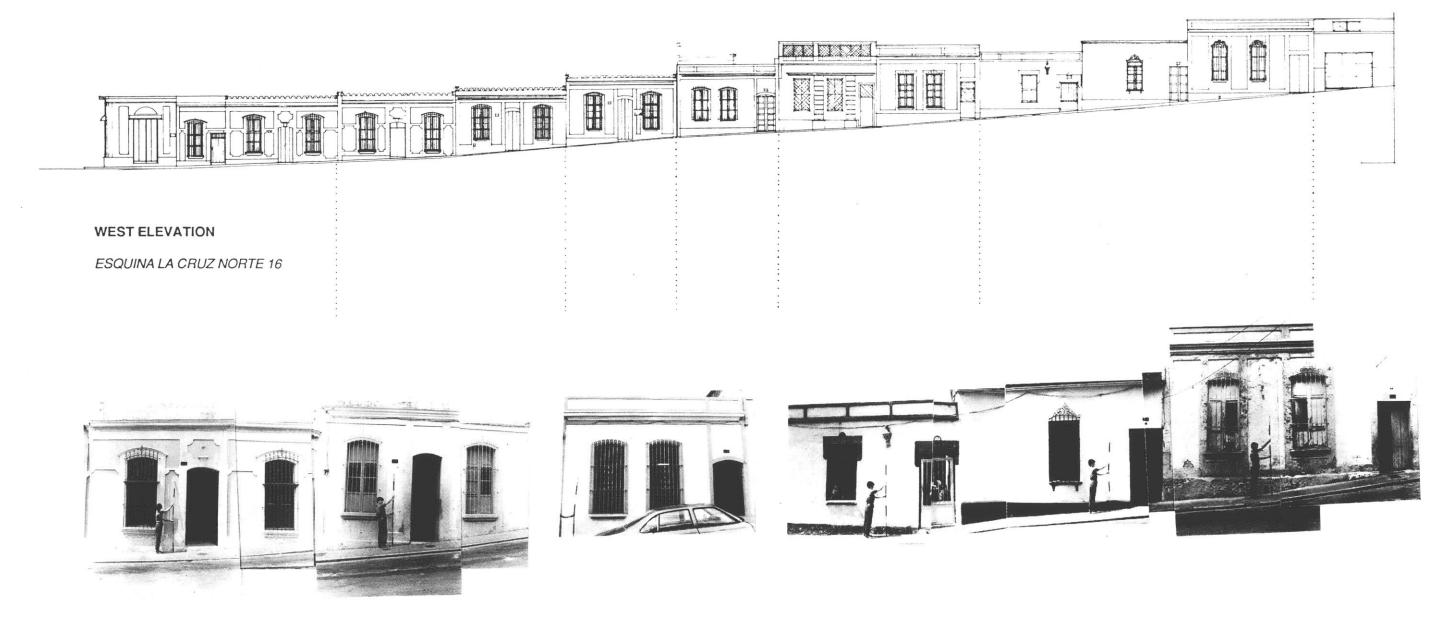
Due to insufficient resources, each town became dependent on a medium capable of delivering the illusion of overwhelming diversity. Ornament is not only the expression of an individual within the collective, but a reflection of a particular time frame.

"The most widely used device in Venezuelan architecture is ornament, and within it, color....

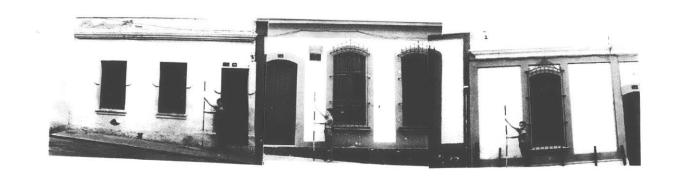
Color is two dimensional, flat, and is a lightweight method for creating illusion. Color is also a medium for historical narrative: it can carry references and multiple readings and suggest techniques and styles." 7

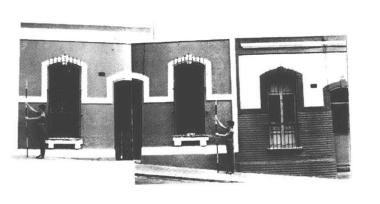
Color is a response to climate, resources, landscape, and human condition, but its goal remains the same -- to be bold and challenging. Bright colors and contrasting colors are used in combination. A warm feeling is conveyed as the sun accentuates the brightness of the oil paints that adorn the houses of *La Pastora*. The different colors of the houses are also used as reference for orientation, and for identification.

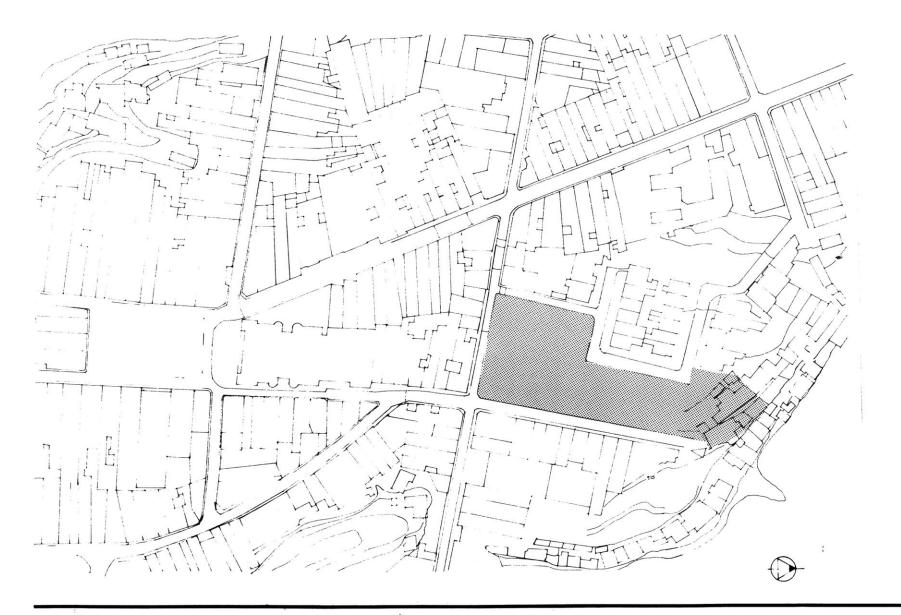
Color, is then, used to further delineate the difference between site, element, and intensification. Quite often each one is delineated with a different color, emphasizing individuality within the collective context.











## SITE

"In general the problem is to settle in such a way that a friendly relationship to the site was established. Such a friendship implies that man respects and takes care of a given place. Taking care, however, does not mean to leave things as they are; rather they ought to be revealed and cultivated." 8

The site is a complex piece, surrounded by three different orders. It is a meeting point of these separate orders. Colliding directions and dichotomies in topologies that meet at the site. The site presents a challenge toward achieving balance, or at the collective level a balance between landscape form and built form.

The three different orders are identified as:

- 1. The traditional grid layout.
- 2. The landscape form -- organic.
- 3. Objects in the open space.
- 1. The grid layout: The explicit system studied in the first part of the thesis. A very dense transformation, as an overlay, built by additions to the rest. The south and east part of the site is for the most part of this order.

- 2. The landscape form: This organic order has grown by addition and transformation over the borders that were left to landscape when the settlement was organized. The landscape is a fragmented band of built and open form courses at the northern part of the site. As a running cascade of water, it comes down from the northern part of the settlement.
- 3. Objects in the landscape: This area was developed I believe in the fifties when the urban concern was to modernize the city.



looking North



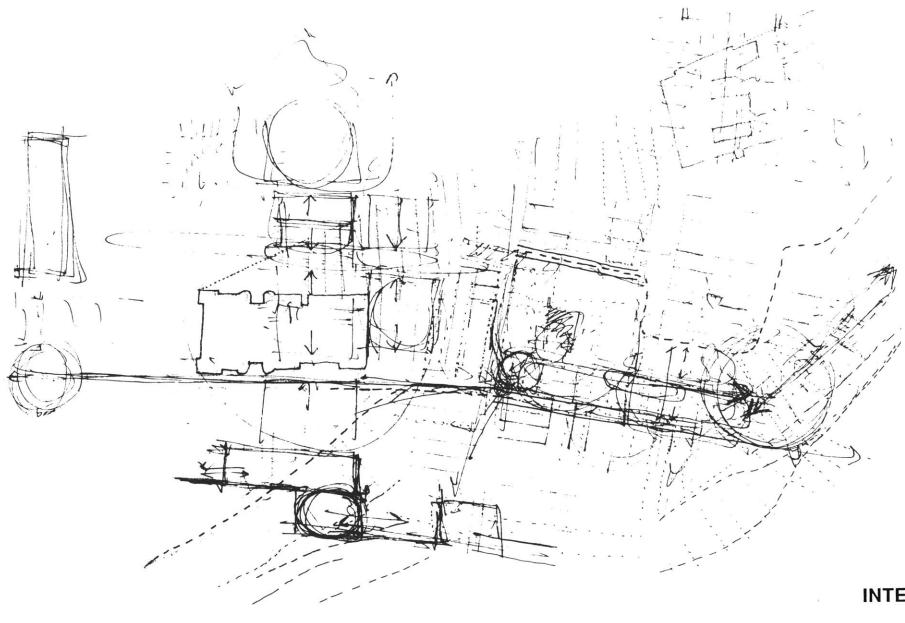
looking East



looking South



looking West



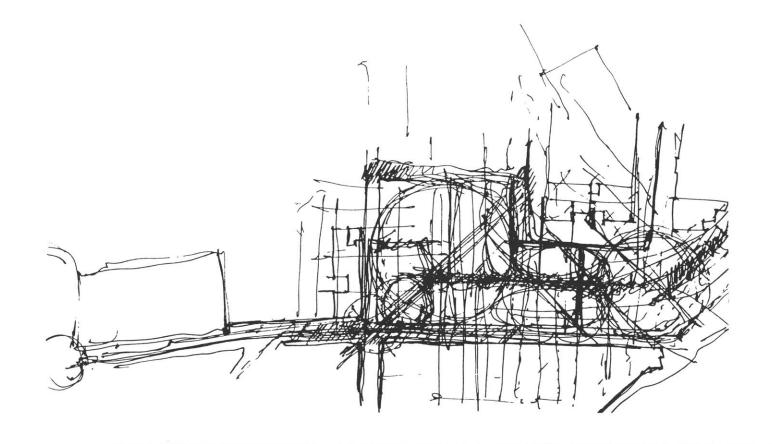
INTENTIONS AT THE COLLECTIVE LEVEL

- -- Connection to the church and the plaza. To the main open space of the settlement.
- -- To connect the landscape forms to the rest of the settlement.
- --To establish a system that at the collective level of intervention sets up an order that will induce by reciprocal association decisions and moves at the next level down ,the individual level.
- -- To introduce a meeting point at the site where one system becomes the other and vice versa. A zone of exchange essential to the existence of balance at the collective order.
- -- To form a new kind of synthesis. To stablish a formal system of categories that orders a settlement at a collective level without it becoming a routine of repetitions, but with leeway to individual expression where then the system is clear with variations and transformation. To enrich the experience of the environment. Transferability in order to set up communication at the urban level with the rest of the settlement.

I wanted to open the southeast corner of the site to make this a link to the open social space, *the Plaza*, a place for interaction to take place with the new community. This will be a square for activity and movement.



looking South, toward the plaza



DEFINITIONS AT THE COLLECTIVE LEVEL

#### FIRST BUILT DEFINITIONS ON THE SITE

The initial design explorations dealt with that of private dwelling space and public space and how they could reinforce each other.

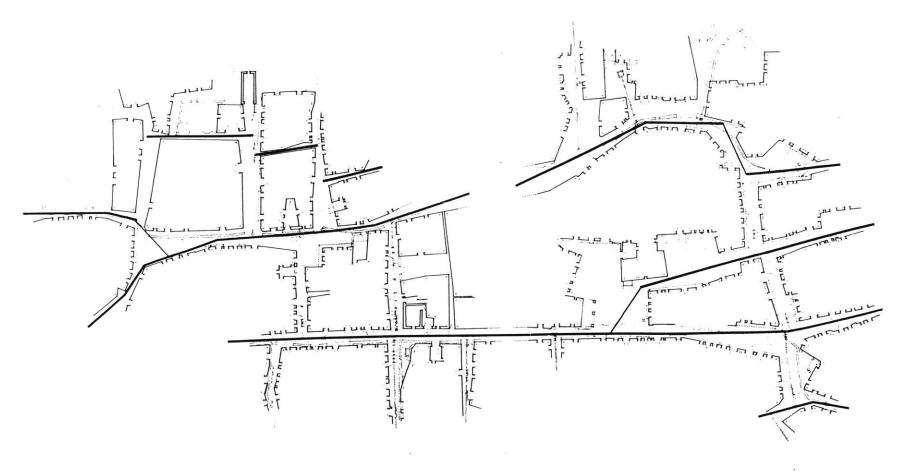
Defining public space was a major concern, although sketches show also the delineation of the lots as an organizing force for the built form. What was being explored was mainly the nature of the collective open space. Collective open space in its ability to generate social activity serves as the setting for the interaction and integration between the people in the existing community and people in the new settlement.

The main intentions at the urban level find their clue from the band of landscape and from the visual and spatial connection to the plaza originating at the south corner of the site, and generated by an open space that connects spatially and visually to the plaza, La Pastora. The proposed housing units take the form of a new band, a thin city block extending from south to north, transforming from a predominantly urban and rigid system in the south to a more landscape organic system in the northern edge of the site. The parallel street to the east links the project with the church and the main plaza.

"In general urban spaces keep and visualize the world of collective dwelling. Three functions may here be distinguished. First, urban spaces allow collective life to take place, admitting all the various activities of a society. The spaces, however, are also related to the topographical structure of the natural environment. Second, the built form is in its standing and visual expression a common mole of being between the earth and sky which constitutes the primary identity of the collective. Third, the spatial figures which serve as organizing foci within the urban texture may visualize a more comprehensive understanding of the world." 9

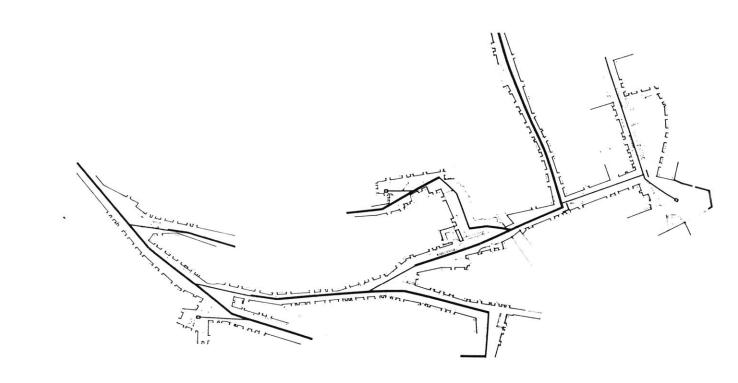
Therefore, the built definitions establish and define the collective space. The second definitions, those of the lot dimensions and direction establish and concern primarily with reinforcing the functions of the collective space. At the same time, the delineation of the public dwelling space becomes something ordered that reads as a common force operating at both scales on the site and transforming itself. Letting the collective space shape the transformation as it reciprocally restates the need to establish a relation with the context.

"The ideal environment is one controlled in all its essential respects by those who use it, who thereby have the greater stake in its quality and are most familiar with its requirements." 10

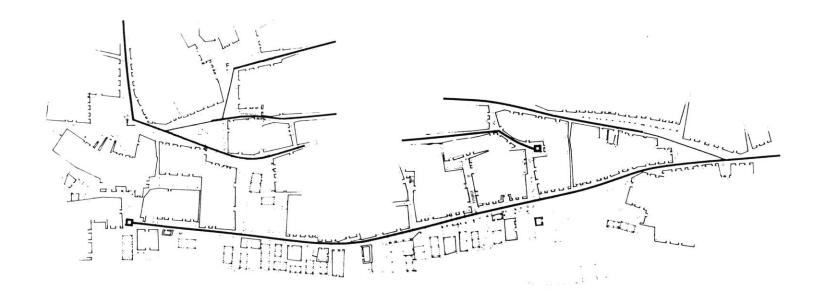


SITE REFERENCES

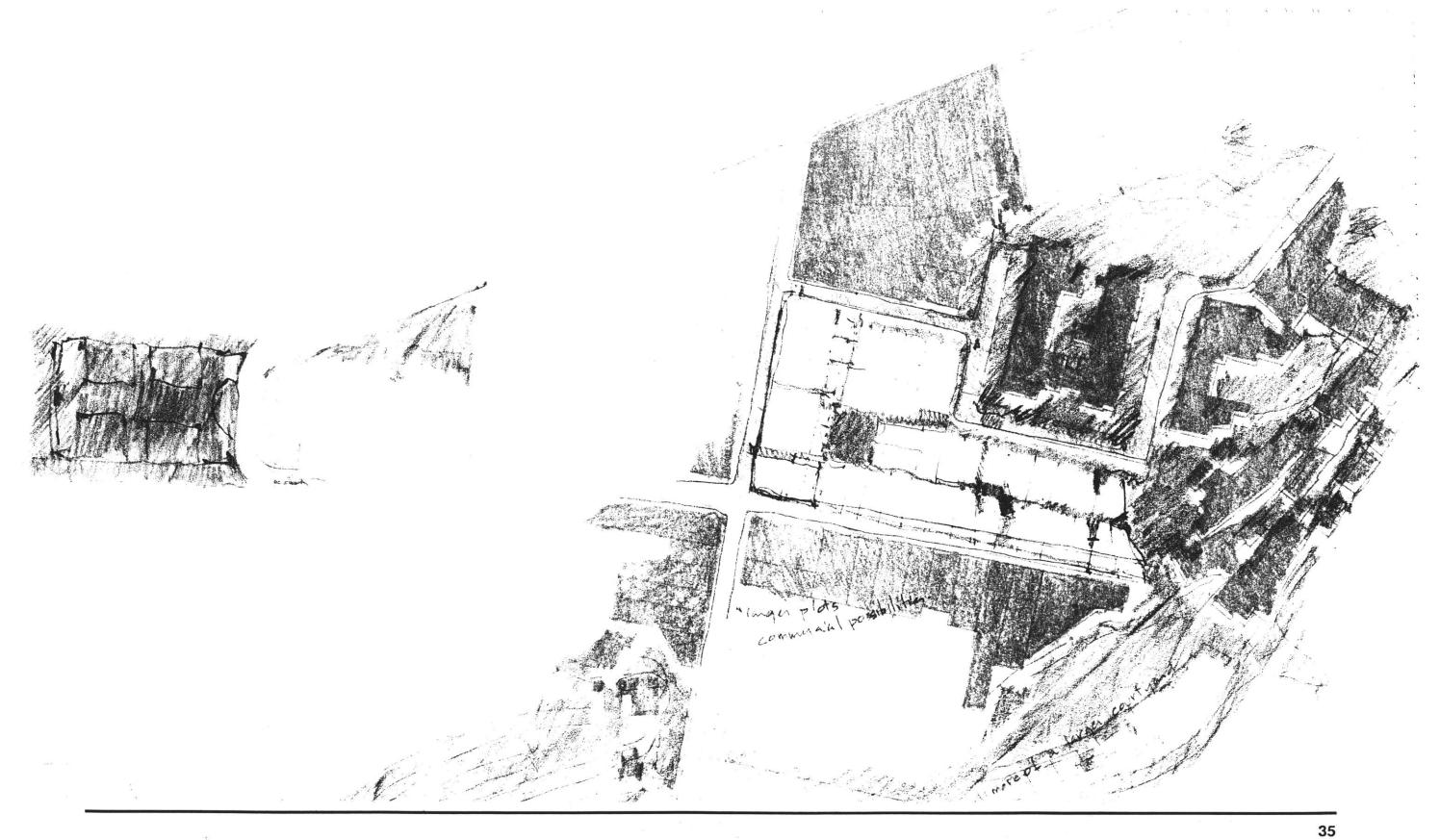
Candelario.

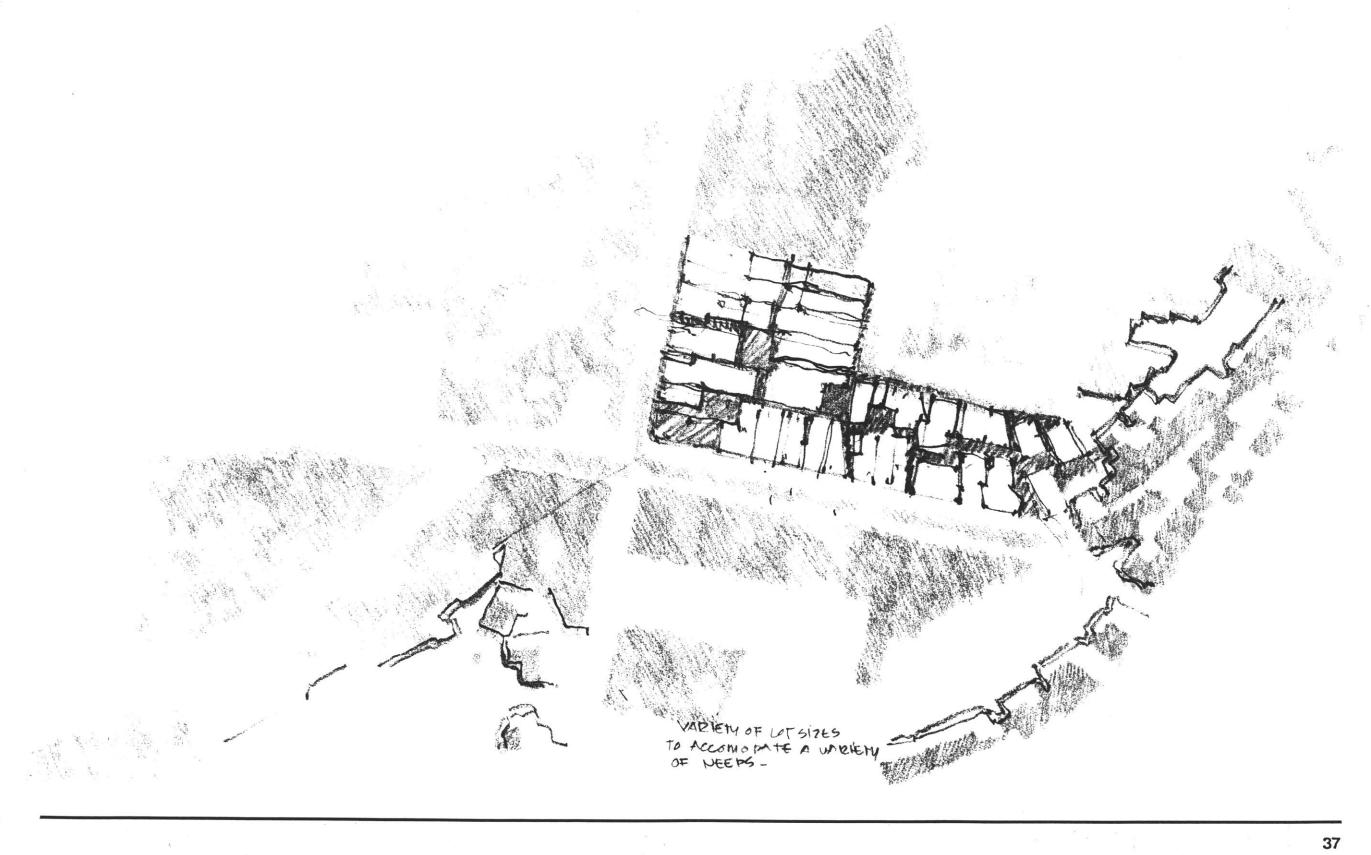


Casares.



Combarro.





# **EXPLORATION**

The program is for housing and other adaptable uses that relate to the way people dwell. Housing grows from my personal interest in the formation of places to dwell. Seeing housing as a process that changes and transforms with time due to changes in the people's lifestyles, values, and culture. The program also provides the opportunity to explore alternative routes to the housing production. This approach, establishes and maintains that collective order is critically important for the urban development of our cities. The understanding that incremental building may be integrative at the level of the unit, but it may not be so at the urban level is essential to relize that an structured approach is needed that works at the various levels. The collective integration for individual identity is achieved, when there are principles at order in the urban level which do not structure the housing production at the individual level.

Individual identity has to be satisfied to improve social stability. This is approached by encouraging the user to take control at the individual level. In order to provide the chance for individual identification with its own environment, one must make a claim on one's own territory. For people to be able to identify with a place they must be allowed to transform it, change it, and undertake the process of completion that they

deem necessary to satisfy human need to change its environment.

I wanted to explore several of the following concepts: variations, adaptability, transformations.

# ADAPTABILITY OF USE -- COMMERCIAL FEASIBILITY

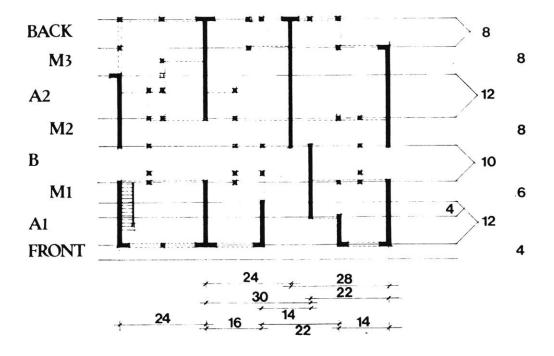
The site relation with its surroundings suggest locations that are more appropriate for a public or commercial use and that is encouraged. Lots that are located near or in front of the public open space or lots facing the main street are also appropriate for commercial uses. Flexibility and adaptability in the dwelling territory is important to allow for a variety of uses, and a variety of social groups.

One important criteria is to have a variety of lot sizes, which result in a variety of dwelling sizes. The larger unit can accommodate an extended family while the smaller unit is suitable for a small family (4 persons). The need for adaptability in the short and long run is important not only to the people that live there, but also for the useful life of the building physical structure.

People change their dwellings because of several reasons and needs identified as the following:

- -- Changes in the size of the family.
- -- Need for identification.
- -- Changes in life styles.
- -- New technological possibilities.





Andres Mignucci.

SUPPORT SYSTEM

#### **TRANSFORMATION**

Dwelling transformation: any change which modifies at least one of the variations of one dwelling. Stage of transformation in a dwelling occurs when there is a change in its building organization. It is premature to construct hard fast patterns or rules without first looking at the rules that govern existing systems.

Nothing that is built is absolute -- transformation and change are important processes linked very closely to the housing process. Therefore, the question remains how to channel and guide this change and transformation without superimposing our standards, but instead by creating a language of forms that can build a communication through the use and association in physical space.

"The variety of materials can still allow an emergence of an understanding of form and environment, an understanding of typology." 11

The concept of incremental growth, that is, of progressive building. Additive completion, changes and improvements of the dwelling form, is important to understand how an association for identity can be built without loosing integration at the collective level. If ones realizes that a dwelling must transform to

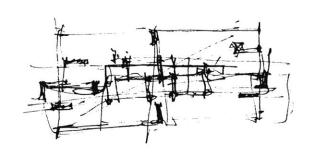
adapt to a variety of needs during the lifetime of its users and that this transformation must be built in the design. Understanding patterns of use and change over time helps to recognize the potentials of the framework. For example: If a small studio apartment is wanted, it can be the second level of the smaller units -- or an specific subdivision of the first level.

For the support to be useful, J. Habraken points out that:

- 1. It must offer physically defined spaces that are smaller than one territory. In other words, any territory will be composed of several such spaces.
- 2. Minimize infill needed to make rooms in the support. In other words, maximize support material as much as possible within the degree of adaptability that you seek.
- 3. Locate well-defined shafts for ventilation, drainage, water, and gas in such a way as to insure easy connection to kitchens, and other services.
- 4. Kitchen and sanitary equipment should be infill.
- 5. Internal private stairs for dwellings of more than one floor can be part of the support, if located strategically to connect two sector groups of changing size.

- 6. The facade can be fully part of the support; or a fixed boundary between inside and outside and yet allow user control to a certain degree of what is closed, open, transparent, or opaque; or the facade or part of it can shift to another place -- if so, this shall be to the outside because people like to expand rather than contract their territory.
- 7. It must offer a choice of different sizes of territories -- following #2, maximize support material and make change of size possible with minimal effort.
- 8. Define very clearly the boundary between private dwelling space and public space.
- 9. All dwelling units must be variations on one and the same spatial theme. Otherwise inhabitants get confused.
- 10. Make infill possible by state of the art technology. Let inhabitants use what is in the market; do not make them dependent on one supplier.

"A support is a structure in which a number of dwellings can be built up and which permits construction, modification, or demolition of each dwelling separately without involvement of the other dwellings in the same support." 12



sevies of decitions at this
zone where built and
open meet
and elements basic
primary to the
formal strveture
formal strveture
cohestst.

Thous ormations

THE FRAMEWORK

The overall design took a linear character due to the dimension of the block and as a way to connect the north landscape system to the more rigid urban system.

The first definitions dealt with the site -- dividing it into territories to dwell and then these develope as a built framework that provides control at the collective level without structuring the process at the individual level, in which case spontaneity and the chance for identity would be lost.

The framework is also used as a delineation of control.

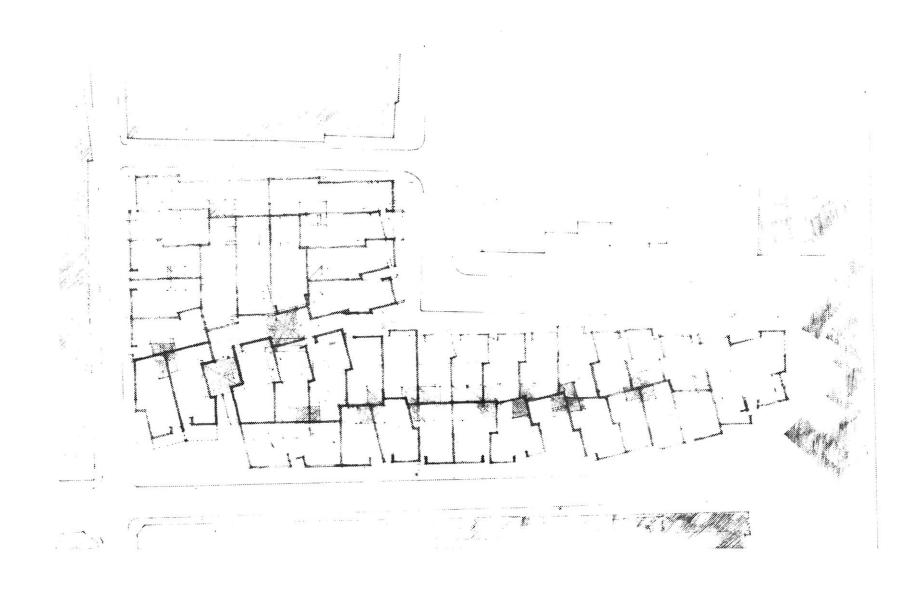
In designing the framework several points were important:

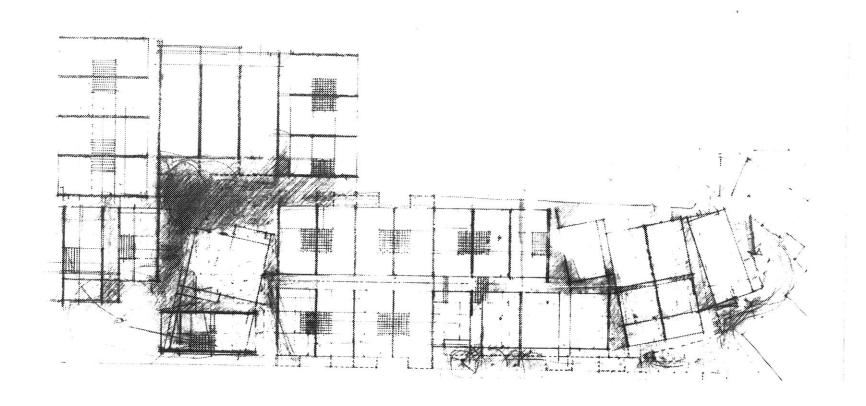
- -- For ventilation, climatic reasons and light the patio element and the zaguan or entrance hall are elements that had to be defined and ordered by the framework. They are essential to the reading at several levels because they and most important their relations work at these hierarchical levels reciprocally.
- -- The framework also defines the collective areas of

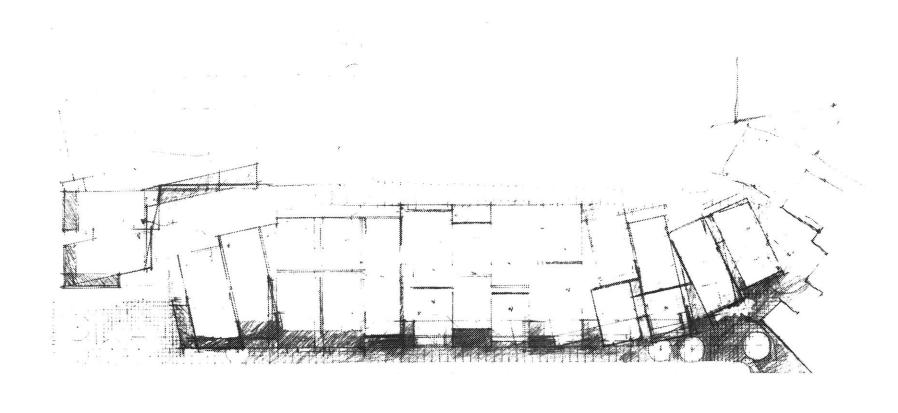
the dwelling form. The patio, the zaguan and their relations and directions establish the circulation patterns in the dwelling unit.

- -- The primary role of the framework is, first, to define a collective order that can be transferred with variations at the urban scale. Second, to define at the collective scale of the dwelling areas for individual interventions.
- -- The framework allows, through the manipulation of secondary structures, the more complete containment of the private areas. The private realm of the units is located at the upper level, having still a relation to the patio and, therefore to light and air.
- -- The design had to allow for a wide range of possibilities regarding use, not only for the immediate inhabitation but through time as changes in needs, tenants and taste would require.
- -- In order to ensure a spectrum of conditions, a number of options or variations are developed from the initial definitions. For example: longer units that can run from street to street and can therefore accommodate an extended family or commercial

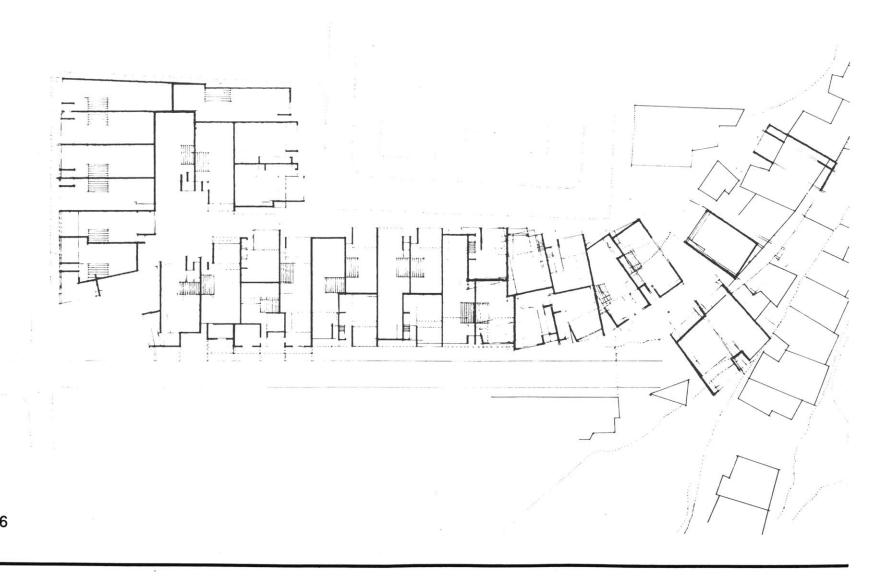
space, or it can have parking on either side. Or two smaller units or studio type apartments sharing a common patio and entrance. Adaptability allows the dwelling to change according to the owner's interest. For example, being able to have a shop-workshop or some commercial activity without destroying the collective order.





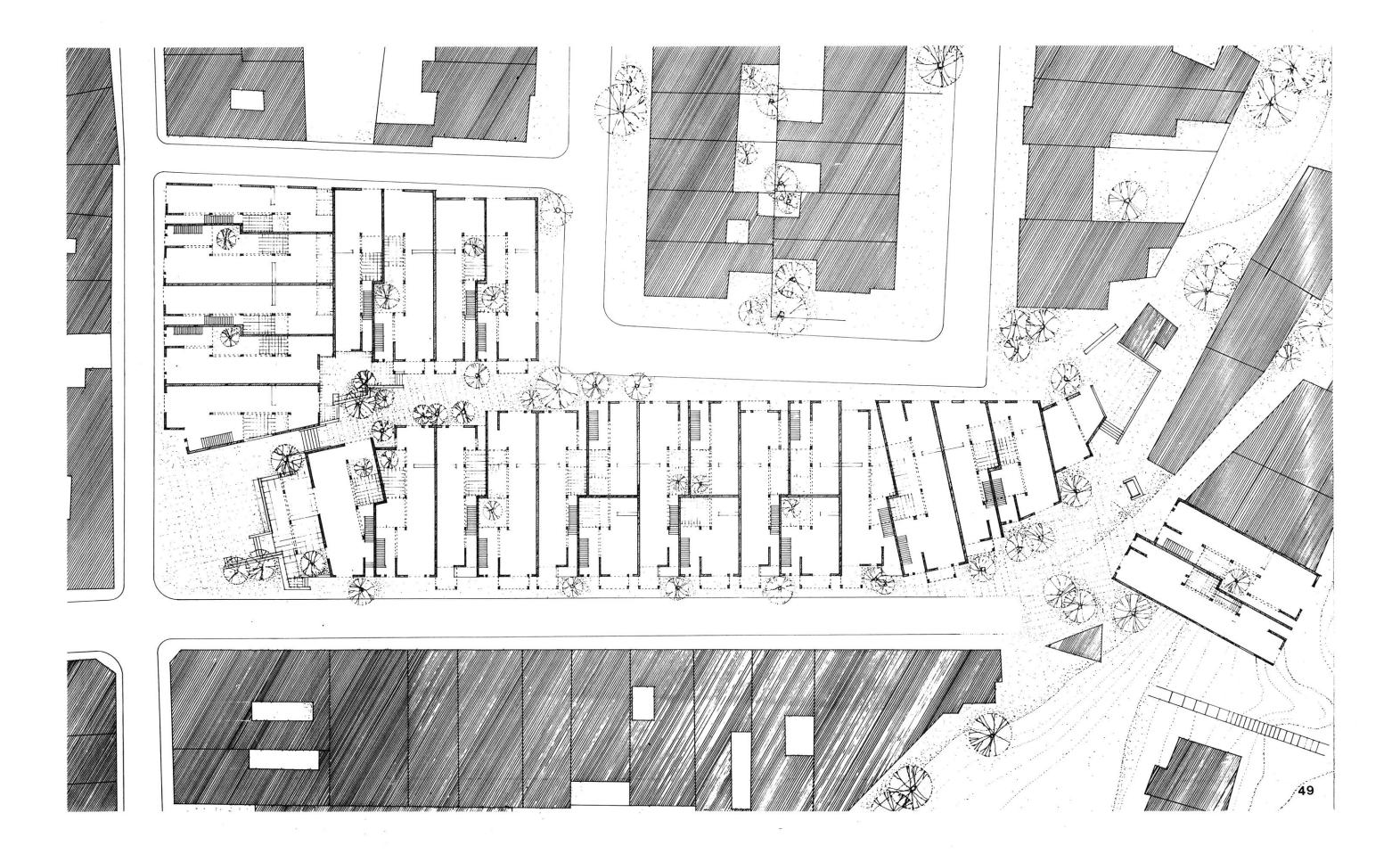


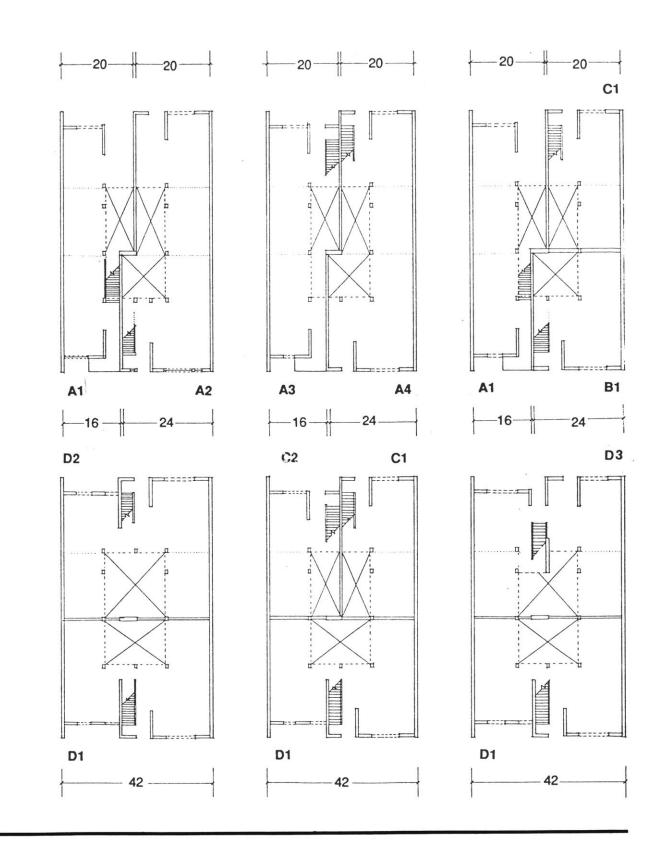
At the northern part of the site, where the landscape form is encountered, the framework transforms while still maintaining the same relations. The design at this point intervenes with the landscape form, coexisting, to provide an exchange and to achieve a clear movement in the collective space. Moving from an ordered urban system to an organic system towards achieving a figural quality for the projection by gradual transformation and translation of relations. A Figural quality is that of making a place to dwell collectively and individually.



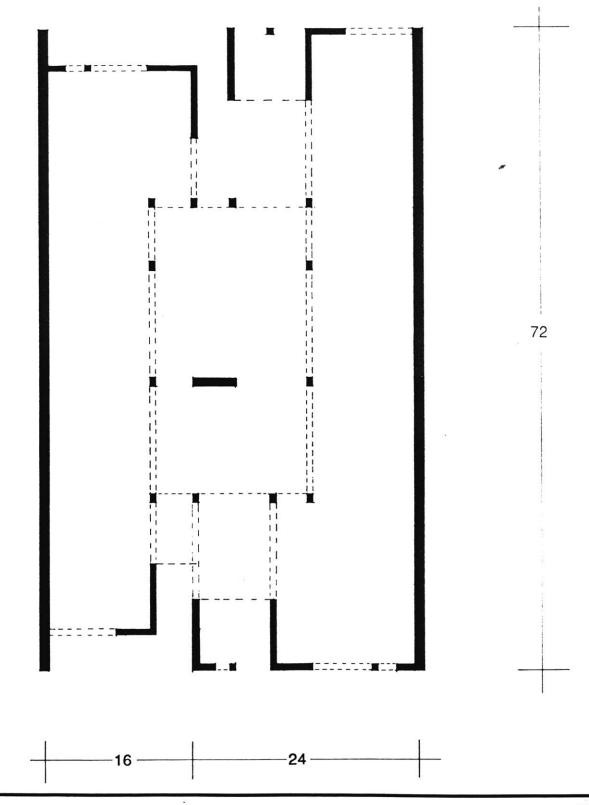


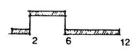
MASTER PLAN



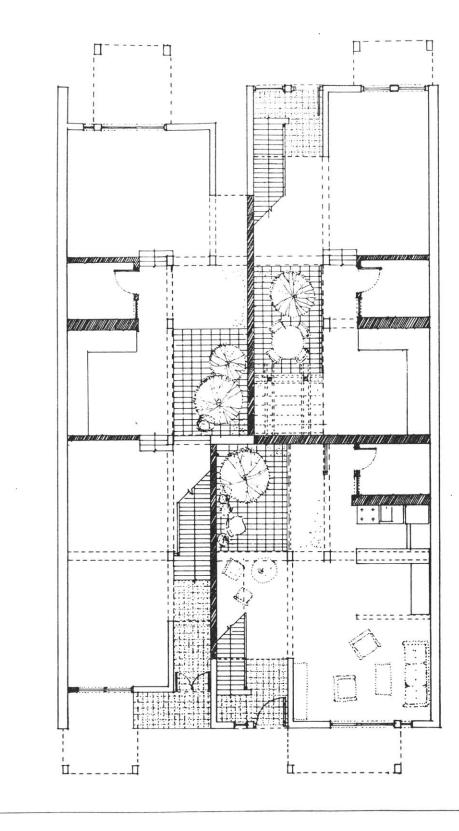


**VARIATIONS** 



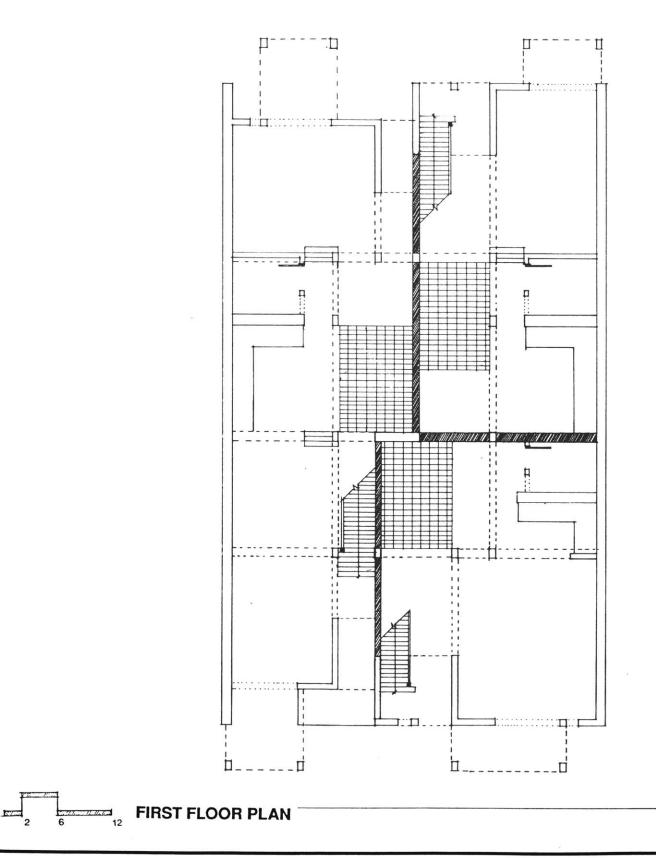


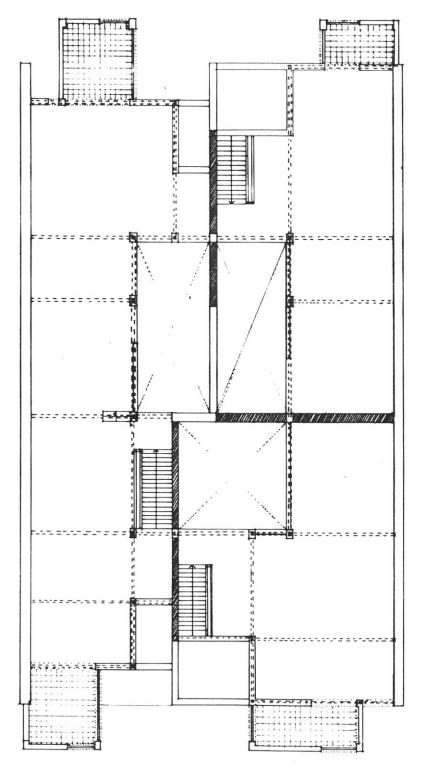
BUILT FRAMEWORK



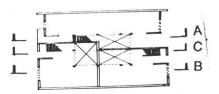


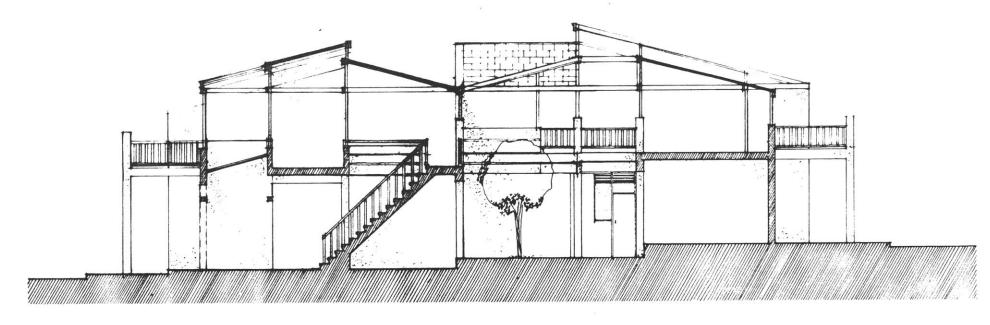
INHABITED FRAMEWORK



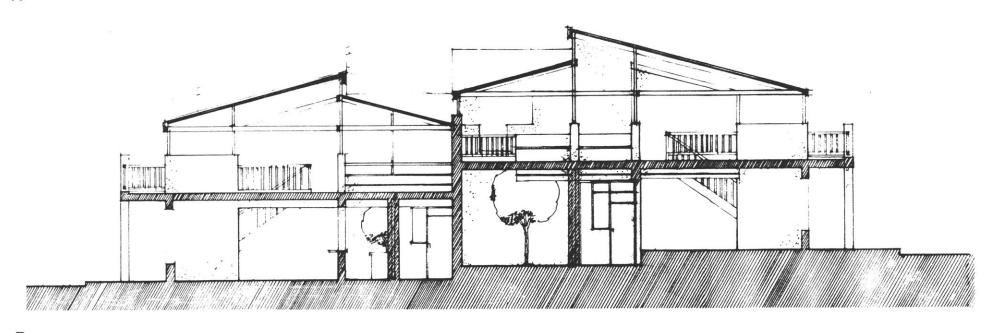


SECOND FLOOR PLAN





SECTION A - A



SECTION B - B



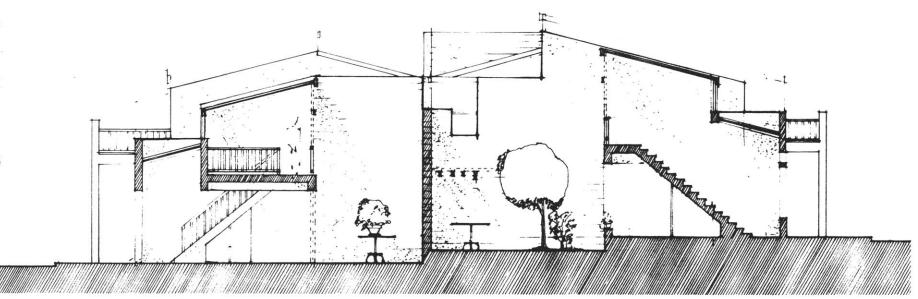
### SECTIONS

The sections explore the relations of primary elements to themselves and to secondary elements, as they are to remain in the following stages and therefore, have a dual function. First to ensure a collective quality and still to channel and evoke transformations at the collective scale of the dwelling.

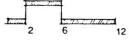
The patio as a central area is study to explore the amount of light that enters. Therefore, the infill walls subdividing the framework can be lower as they run through the zone of light.

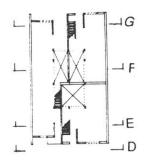
Sections also explore how the framework, that guides several decisions fundamental to the built form, is establishing them in the dweeling scale. For example: changes of level to accommodate the slope of the site.

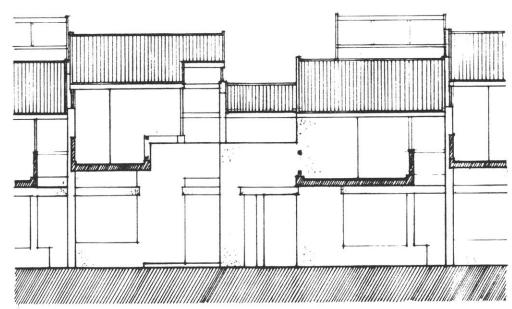
The cross-sections also explored the movement through the units wich parallels the direction of the zaguan and the patio.

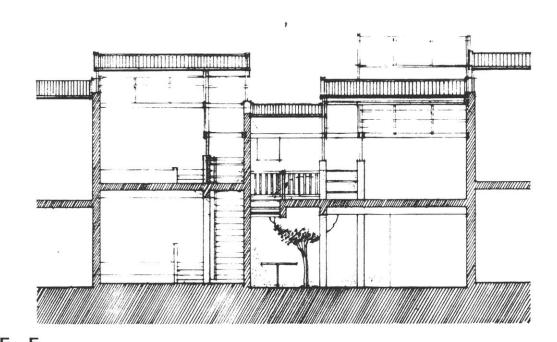


SECTION C - C



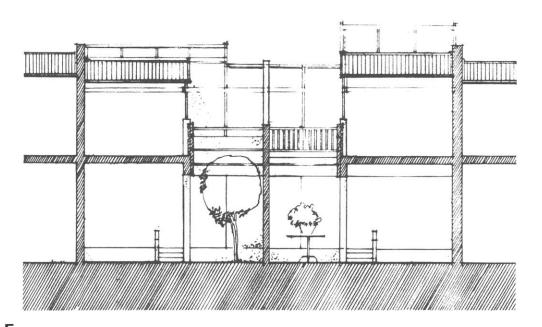


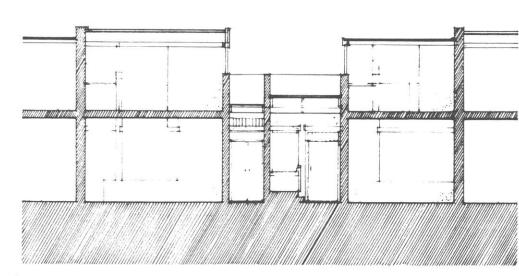




SECTION D - D SECTION E - E

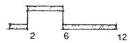
CROSS SECTION

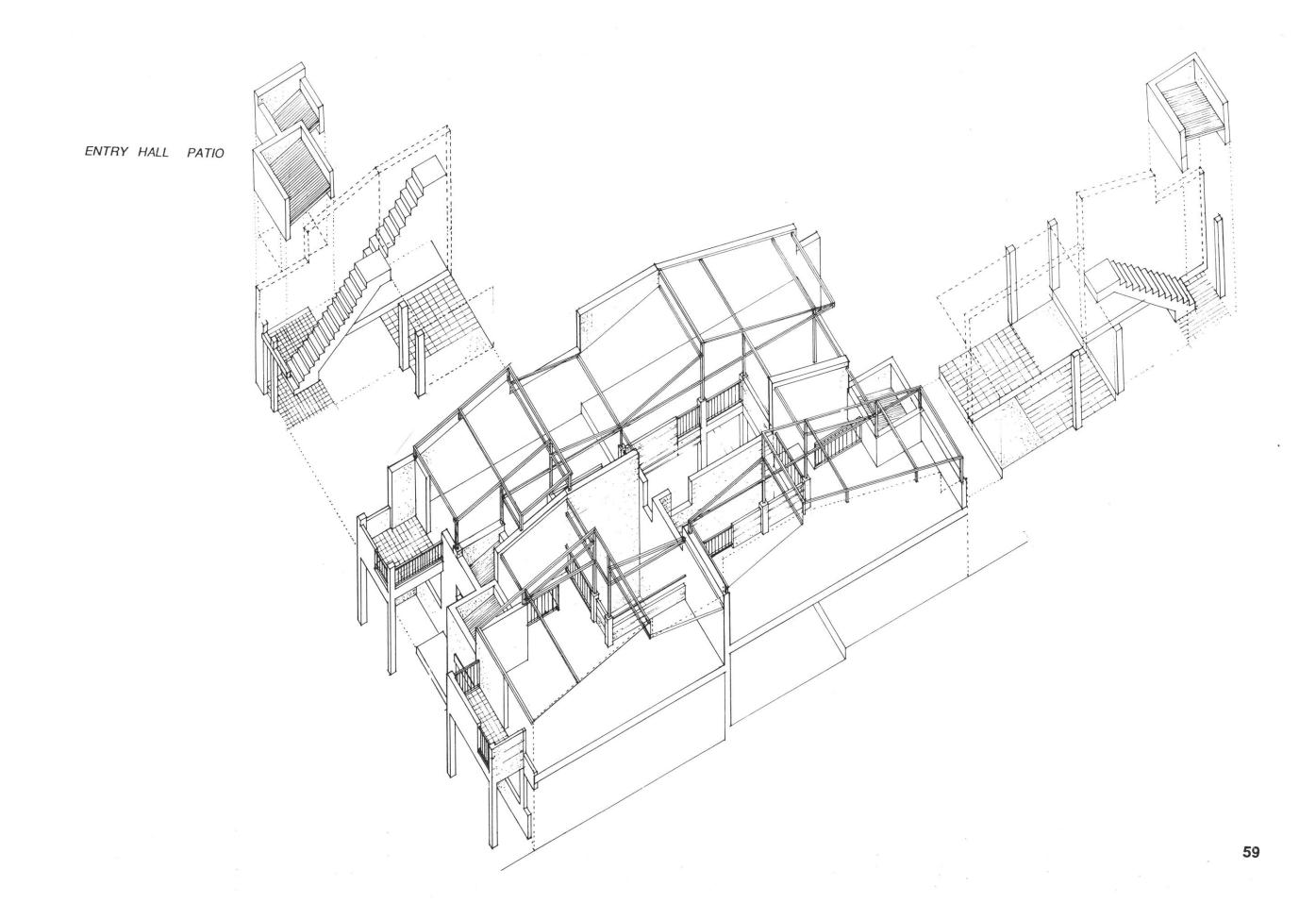




SECTION F - F

SECTION G - G





The roof is conceive as a light structure that works independently between units, in order to provide the freedom necessary to change it if desired. Other factors that develope with this criteria in mind are the choice for material and dimentions of the elements that belong in this zone.

I envision this zone as bulit by elements that belong to the sky and by its dimensions and light weight can be extended and transformed. The roof meets the built framework in a zone of light and air delineated by the change from the masonary system to a system of steel posts. This change serves to frame an area where the transformation from a ground system to a sky system occurs.

Corrugated sheet metal is used as structural self-supporting roofing, spanning between framing members. Support material consists of beam rafters and pointers in steel. The laminated sheets are mechanically fastened to the support.

From the masonry wall the framework is transformed in the upper zone between earth and sky into a light steel framework, as seen in sections of the study units.

"Why does architecture always stand so solemnly in front of people as retrospective symbols? It suffices to cover to the minimum extent the place to perform basic acts, such as to eat, sleep, and talk. If a house were as light as cloth fluttering in the air and covered with a soft roof, it would set people free from the earth and invite them to a dream garden in the air." 13

#### THE ELEVATIONS

The facade zone is fairly structured, taking most of its organizational clues from the traditional prototypes present in the context.

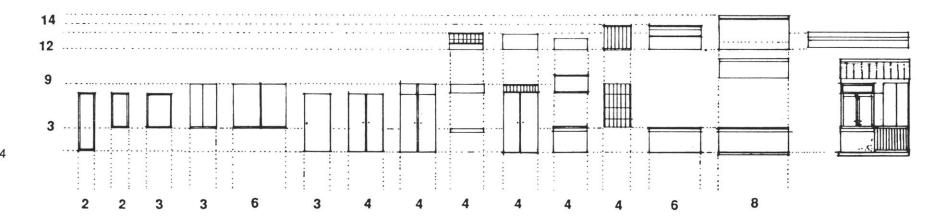
The facade zone in elevation is organized into two distinct systems: the framework which establishes the overall structure and the infill which allows for variations at the level of the individual.

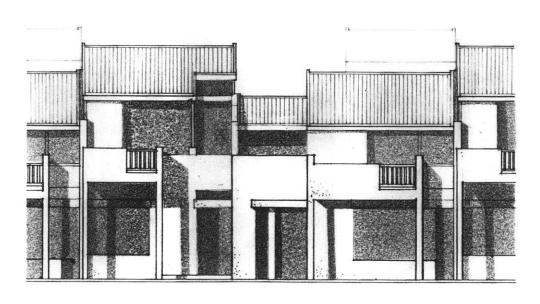
The facade is partly a fixed boundary at the ground level and it shifts to the exterior at the upper level. The shift defines a zone of extension. A language of elements for infill is studied ,in order to test the framework. The language develops from an understanding of dimmensions and topological qualities of these infill elements and the aggregations that concurr in complex relations of the parts. The primary definitions are tested to take a number of variations defined by the user.

"The family of elements common to each interpretation served as continuity, while the different aggregations and assemblages of these elements, the variants, supported the identity of the individual." 14

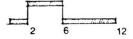
The facade is then defined as a larger zone than what is present in the context. This grew from the necessity for this zone to exchange with the open collective space. A zone that can be claimed by either one of the two scales and is therefore, delineated by agreements .

In reading the framework it is essential to understand that the element that goes in the dwelling from the exterior is the zaguan. This element is very important because it sets the direction and the relation to the patio and circulationin the dweeling and establishes the relation to the outside.





**ELEVATION** 



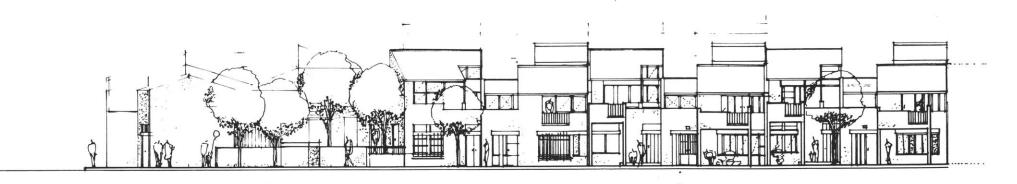
WEST ELEVATION BUILT FRAMEWORK.

**EXPLORATION** 



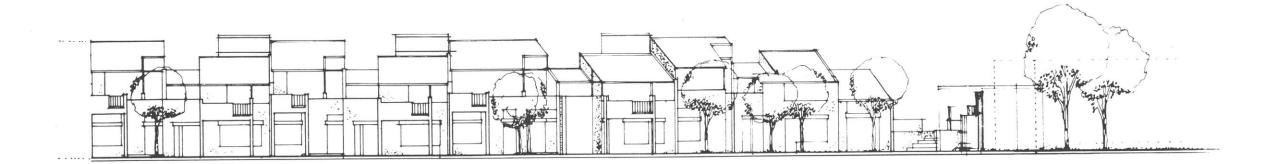
WEST ELEVATION.

ESQUINA LA CRUZ, NORTE 16. OBSERVATION



WEST ELEVATION INHABITED.

**EXPLORATION** 





The framework represents an intermediate definition between the urban scale and the individual scale. It is responsive to the different and changing needs of people. The facade zone, like the rest of the dweeling, requires a secondary definition and delineation which comes form the realm of the individual. The built framework defines zones, within the totality of the facade to be infill with a variety of elements. A family of elements and accentuations; doors, windows, balconies, iron grills, color, and texture dress up the facades reinforcing functional decisions at this edge.

The family of elements chosen by the individual respond to the use established and change the appearance of one dwelling to the next. The zone of the facade is intensified by aggregations of a vocabulary of elements by which personal decisions gain value and extension. People exert dominion over the collective at the scale of the individual.

As in vernacular settlements, the vocaulary of elements congruent with the built framework are based on an individual taste, changing needs, values and culture. These elements generate at the collective scale a variety that is representative of peoples dreams and illusions.

As cities and towns dress up with ornamented bright-colored facades for an urban feast, the framework allows by a building process for the articulation of individual identity. Therefore, at the individual scale, it reinforces actions that by association built on an individual's identity.

# BIBLIOGRAPHY:

Hertzberger, Herman. Architecture for People. Architecture and Urbanism. 1977

Habraken, N. J.. Supports: An Alternative to Mass Housing . Arch. Press. 1972

Gastal, Alfredo. Toward a Model of Cultural Analysis for the Designing Process. 1982

Turner, J. G. F. Housing by People - Toward an Autonomy in Building environments. Pantheon Books. New York . 1986

Mignucci, Andres Projective architecture: Studies toward the Meaning and Generative Language of Associative Built Form. 1982 M.I.T MArch Thesis.

Vega, Federico. Venezuelan Vernacular. Princeton Architectural Press. 1985

Norberg -Schulz, Christian. The Concept of dwelling. Rizzoli<sup>1</sup> International. 1985

Norberg -Schulz, Christian. Intentions in Architecture.

Habraken. N. J. Grundsfeld Variations.

## **END NOTES**

- 1. Habraken
- 2. Christian Norberg Schulz
- 3. Christian Norberg Schulz
- 4. Andres Mignucci. Projective architecture: Studies toward the Meaning and Generative Language of Associative Built Form. 1982. M.I.T MArch Thesis
- 5. Abitare. # 246 Spagna. August 1986
- 6. Christopher Alexander. The production of houses.
- 7. Federico Vega . Venezuelan Vernacular.
- 8. Christian Norberg Schulz. The Concept of dwelling
- 9. Christian Norberg Schulz The Concept of Dwelling
- 10. Lynch. Site Planning.
- 11. Proceedings 1983
- 12. Habraken
- 13. The Japan Architect. 11/12/86
- 14. Andres Mignucci Projective architecture: Studiestoward the Meaning and Generative Language ofAssociative Built Form. 1982. M.I.T MArch Thesis