Improving a Spontaneous Settlement in LaVega, Caracas

Silvia Soonets

Architect
Proyectos Arqui 5 C.A. Caracas Venezuela

Abstract

This paper examines a project that forms part of a large plan for the improvement of all the spontaneous settlements in Caracas, in order to incorporate these zones into the formal city. This is a 15-year plan, developed by *Conavi* (*Consejo Nacional de la Vivienda*).

At the time of writing this paper, the design process is still unfinished. For this reason, it will only be possible to discuss the early phases of the project, looking at a more comprehensive vision of the project that will allow all actors to undertake the next phases in the best possible way.

The project involves many different actors, and each of them has its own priorities. *Proyectos Arqui5* is participating in the project as one of the winners of a competition for selecting the design architects, so many ideas in this paper are related to this specific point of view.

Background

The problem of the spontaneous settlements in Caracas is a very big one: about 40% of the city's population live in them, and although the local and central governments have invested large sums in services and infrastructure, the problem never had been treated in a holistic way, and most of these efforts have been unsuccessful.

During the past 10 years, a small group of architects have been working in a new way in some areas, which have functioned as pilot projects and have been successful. But since 1999 the solution of this problem is one of the central government's main housing policies. In order to attack the problem at a large scale new strategies are needed.

In the pilot projects experiences, the architects lived in the settlements, and they didn't have strong institutional support, so they had to represent many different roles, and take care of the physical problems, as well as the social ones. In this new phase of the project, an autonomous institution, *Fundacomun*, will take charge of social issues, and private architects will do all things related with the physical ones.

In order to have an organized reference frame, limits were defined between the settlements. The large continuous zones are called UPF (Unidad de Planificacion Fisica). Each UPF has been subdivided in small zones, called UDU (Unidad de Diseño Urbano). These subdivisions are principally based on topographical criteria, (Villanueva, 1998) and do not always correspond with the zones that are perceived by the population.

Conavi chose two of the largest spontaneous settlements in Caracas, UPF 4 "Petare Norte" and UPF 10 "La Vega" as the first zones that will be improved. For

the selection two factors were taken in consideration: the municipality owns the land, and there is a strong organized community. The different UDU's in these UPF's were assigned to private architectural firms in November 1999. *Conavi* has planned to repeat this process in all spontaneous settlements in Caracas.

The Site

Although the whole project involves two settlements, "La Vega" and "Petare Norte", this paper focuses only on the first one. The main concepts of the process are the same in both cases, but there are some differences because "Petare Norte" has a higher density, probably the highest in whole city, and then has different specific problems.

La Vega is a big spontaneous settlement of about 392 Ha with aprox. 95.000 inhabitants located in the southeast of Caracas. It grew around the old town of La Vega, and the first spontaneous zones were developed during the first years of the twentieth-century, when a cement factory was established in the zone. The site covers the mountains, and has steep slopes, with gradients of about 40%. Although it has some schools, it lacks public services, roads and public spaces. For this project, La Vega was subdivided into 8 small units, or UDU's. Seven of them are part of the improvement project, and the last one was part of the initial pilot project and is now under construction.

In La Vega, Los Cangilones UDU 10.5 is the smallest one. Its area is 28 Ha. with a population of 5.649 hab. It is relatively isolated from the rest of the UPF, and has contact with other zones only along the main road, Carretera Negra. The site has very steep slopes, mostly over 60%. On its Northern and the Eastern sides it is limited by a formal development of social housing located in the old factory, on the West with a National Park, and on the South with the main street. Almost all buildings have a residential use, and there are no schools or health services. In this UDU there is no strong organized community, because the inhabitants feel that they are part of a big zone, called Los Mangos UDU10.6.

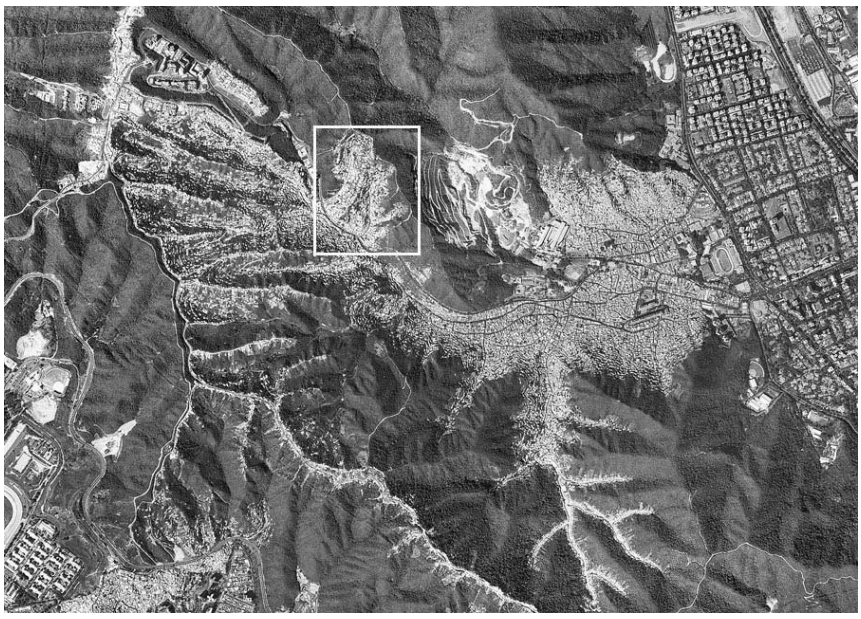

Figure1: Aerial View of "La Vega", showing the location of "Los Cangilones"

A Large scale Approach

In order to start this new phase of development, *Conavi* and *Fundacomun* set some strategies and organized some activities to select the architects and start the process of the projects.

A Common Framework

Conavi established these strategies, and all actors must follow them. Some of these strategies have been tested in the pilot projects, and were generally successful (Villanueva 1998). It is too early to know if they will be successful in this new large-scale phase. For this reason, they will not be analysed in this paper

Strategies related with physical problems:

1. The main problem is accessibility, and all improvement zones must to have at least 20% of land dedicated to roads. The maximum distance in height between a house and a road should be 20 m. or 8 floors. The maximum slope of the street should be 14%.
2. The land needed for public services has been calculated, and the projects must reserve enough land for these purposes.
3. The houses that are built in dangerous zones must be removed. The dangerous zones will be used for public services buildings if it is possible, or as parks.
4. New houses, located inside the same UDU, will replace the houses that must be demolished in order to locate roads or services.
5. All houses must have adequate services of potable water, sewers, electricity, gas and phones.
6. These settlements have an extended network of pedestrian roads and stairs. Most of these will become private, and the houses will be organized in condominiums[1] of about 20 families. Each condominium will receive a legal land title, and will take in charge of the maintenance of its land and services.

Strategies related with social and economic problems:

1. All the projects must be approved be the community, which must participate in the entire process.
2. In each UDU a Local Project Office will be set up. It will be in charge of the construction process, the modifications of the existing houses, and will help in the participation process. This office will have both technical and administrative responsibilities.
3. A loan from the Word Bank will provide funds for the construction of the roads and substitute houses, but not for the construction of public buildings, which must be financed with other resources.

Selecting the Architects

The main goals at the beginning of the project were to involve Venezuelan architects in the project, and initiate and conduct the project in the most transparent way. To achieve these objectives, the following activities were developed:

1. *Insurbeca*, a semi-private urban planning firm linked to the University, was contracted to make a preliminary analysis, and source all physical information. They presented this information in two CD's, one for Petare Norte, and the other for LaVega.
2. A competition was organized for all architects in Venezuela. There were no special requirements competing. All the architects interested in the project had to take a one-week course, in which they were informed about *Conavi´*s strategies, visited the two settlements, and given a common reference frame. The 12 UDU were distributed between 84 architects, so there were 6 or 7 working with the same UDU.
3. Several important Venezuelan architects and one architect from *Conavi* selected the 12 winners, based only on the architectural merit of the ideas.
4. The community was informed about the project, and *Conavi* organized an exhibition of the winning projects in a school in LaVega. It was the first time that all actors met each other.

[1] In this paper the word *condominium* is used in its legal sense, meaning a way of organising a neighbourhood, with several families sharing land and services and paying a monthly fee for that. This is the most common kind of housing in Caracas; although most condominiums are multi-story buildings, the same laws are applied to groups of individual houses.

5. Each architect presented a preliminary budget for the design project, and at this point **the process stopped**, because almost in all cases there was a huge difference between the budgets presented and the resources the government had assigned to the project. *Fundacomun* is managing all this process.
6. At the same time, the community leaders started to ask the professionals when the process would begin.

Recommendations to Improve the Selection Process

This strategy has not been successful: the budgets are very high, the architects have lost their motivation, the community is impatient, and all they have started to think that all is a bluff, putting whole project in risk of failure. The following are proposed aspects that should be taken in consideration for future process:

The selection of the architects:
The competition was a good idea in Venezuela, because of corruption. However, the selection process didn't consider the real professional's capacity to attack the problem. Future processes could be more successful if there are some requirements competing. These requirements could be:

- The existence of a formal firm. This is a requirement of the World Bank, but also guarantees that the architect has a minimal operational capacity, such as an office and some staff to support the work.
- Some experience in Urban Planning, or in Social Housing. Some of the winners didn't have any experience in these fields, and needed to contract another professionals, affecting the project's budget. The organizer's intention was good, as they wanted to involve young architects. However these kinds of projects are very complex, and need experience.
- Due to the project requirements, others professionals such as engineers, urban designers and sociologists are needed and therefore a list of the project team should be submitted.
- The architect's office must be in the city where the settlement is, because the project needs a close contact with the community, and travelling or setting a new office could be very expensive.

In addition, the panel of judges should take the same course than the competitors. In some cases, the projects selected didn't follow the strategies that were set by *Conavi*.

The quality of data:
The preliminary analysis was more detailed than was needed, and in many cases the data was also inexact. It is a waste of time and money, because the mistakes ought to be corrected in the project phase. For the competition, the only information needed was:

- An aerial photographical restitution of the area in scale 1:2000
- A site map, showing the relationship between the different UDU's
- A site map of the dangerous zones.
- Basic information about the UDU, like the number of inhabitants, the density, and the use of some of the special buildings.
- Requirements about the public spaces.
- A detailed guided visit to the settlement, and a *formal organized meeting with community's leaders*. This would permit the architects to have a deeper knowledge about community feelings and needs, and the inhabitants could have more realistic expectations related to the whole project.

The data errors have another undesirable effect, as *Insurbeca* lost its credibility, and this would be a problem during the design phase.

The contract process:
In order to obtain the best project prices, *Fundacomun* asked for a budget from each architect, without providing any information about the available resources. This made the process longer than is needed; it was necessary to prepare several different estimates before managing to get the correct price level. In the future, it would be better to inform the architects about the available budget for each UDU. If the

private firm cannot make the whole project with this budget, the second selected firm must be called.

Another obstacle in the contract process was that the architects were not informed about the conditions that the World Bank imposed for financing the project. It was necessary to adjust the budgets several times before to carrying out all conditions.

The Project's Future

Although the community and the architects feel that the project has stopped, *Conavi* and *Fundacomun* have continued working, trying to reach the following phases, related to the detailed design. It is useful, at this point, to look carefully at the potential problems, in order to avoid as many of them as possible. Some of these problems will be related to the role of the actors, and others with the design and participatory processes.

The Actors Working in the Project

They can be classified into three groups, each one representing different interest and in charge of different activities. Some of the actors represent an active role, and others a passive one.

The Promoters and Inspectors

- ***Conavi*** is the main promoter, the owner of the idea. During the design phase it will help *Fundacomun* providing technical and legal support. They should be, in addition, the "conscience" of the project, keeping watch over the philosophical issues, in order to avoid the project losing its holistic vision, and becoming a simple process of repairing roads and services.
- ***Fundacomun*** is in charge of logistic issues, like the contracts, the administration of economic resources, the selection of consultants and supervisors and the coordination of different actors**.**
- **Outside supervisors** will be contracted by *Fundacomun*, for the evaluation of the projects, mainly because the contract laws require this supervision.
- **Municipality.** Their role is still undefined, but will be important during the ending phases, related with permits. *Conavi* is planning not to request permits, thinking that it is a special project, but Municipality has not approved this status.
- **The Central Government** does not have an active role in this process, but an important passive one, establishing new housing policies that could affect the project. In addition, the government's decisions could change the people's perception of the project, and affect the participation process.

The Technicians

- ***Fundacomun*** will be in charge of social issues, facilitating the participation process, and the contact between the community and the other technical actors. Their main activities are:
  - Identifying the true community leaders, and facilitating the organization of Neighbourhoods Associations.
  - Making people understand the project's goals, and its potential benefits, as well as the new responsibilities the community will have.
  - Coordinating meetings between the technicians and the community, to explain the different projects.
  - Accompanying the different technicians during their visits to the site in order to guarantee their physical security.
  - Collaborating with the architects in the start off the Local Technical Office.
  - Identifying the main necessities of the community, and coordinate some urgent repairs that could be needed to maintain the project credibility.
- **The Architectural Team,** which will be consist of the architect, the urban designer, different project engineers and a sociologist, will have the

responsibility of doing the project and coordinating all the technical issues. Their activities are the following:
  - Coordinating with *Fundacomun* the survey needed to establish the social and physical characteristics of the settlement, and producing the maps containing this information.
  - Designing the different projects according to *Conavi*'s specifications.
  - Presenting the projects to the community, and obtain their approval. For this goal, the architect will produce different kinds of presentation material, like models and drawings.
  - Coordinating their specific projects with the service companies.
  - Organize the Local Technical Office, and select the staff will work there.
  - Drawing up a construction program, and prepare a preliminary estimate of the construction cost.
  - If permits are needed prepare the required Municipal drawings.
- ***Insurbeca* and the architects working in others UDU's** will have to coordinate the projects of the different zones, and guarantee the compatibility between them. *Insurbeca* will be contracted by *Fundacomun* to be the leader in this process. The architects working in others UDU's in addition have an important passive role, as their actions could affect the inhabitants and *Fundacomun*.
- **Consultants,** who will be contracted by *Fundacomun* to make some special studies and projects, like soil studies, aerial photographic restitutions, surveys and environmental studies. These projects can be requested by any of the architects, and will be centralized in order to make them cheaper.
- **The Service Companies** that provide electricity, water services, phones and gas, will have an important role during the design phase, because in some cases they would want to make their own projects, and they always have to approve them. The electricity company has a special role, as it has the newest maps of the site, and is the only service that all people pay for. The contacts with these companies must be responsibility of *Fundacomun*, because public organizations often obtain better project prices.

The Community

- **Inhabitants inside the UDU** have to participate in approving all projects, but most important is that many of them have to change their way of living, and start to enjoy and pay different new services. The whole project depends on their disposition to change and become part of the city.
- **Neighbourhoods Associations,** which have an enormous political power, could help to organize the inhabitants, and facilitate the participation process. It is important that they act in the interest of the community rather than in promote their own interest.
- **Religious Institutions** depending on the Catholic Church, have traditionally had a role managing schools and medical centres in the settlement, and could help in the needed training process, as they enjoy a high level of respect and credibility. They can also provide space for meetings and exhibitions. In the zone there are Evangelical Churches, which can also support the training process.
- **The builders of the formal development** could help providing operational capacity and knowledge about community. The play also a passive role, because their actions could influence the feeling of the community about technicians.
- **Inhabitants living in others UDU´s** have a passive role, because the result of the process in these zones could influence the opinions and advices they give to their neighbours. It is specially important the role of the inhabitants of the UDU 10.8 "San Miguel", because they were part of the pilot project now in construction.

The Financers

- **Central Government** will provide the funds for the project, as well as the construction, through *Conavi* and *Fundacomun*, and is represented by these two organizations.

- **The World Bank, financing** part of the roads and services. In the project phase they have not an active role, but their conditions for the loan have an important influence in the process.
- **Municipality**, which has a big financial capacity, and are still not involved in the project. In its annual budget there are funds for the informal settlements, that could be used in some buildings and projects, if is possible obtain some level of coordination between them and the central government.
- **Private Sector**, which may be interested in participating, must be involved in this phase, taking in consideration their need of land for commercial use. By selling this land, the project could cross subsidize the public buildings, which are not financed by World Bank.

The Relationship between the Actors

To co-ordinate so many actors working together successfully will be the real challenge during the design phase. For this reason it is important to know the different relationships between them.

In spite of their quantity, the different collaborative relations are organized in three "virtual spaces", where all the decision will be made:

1. The Technical Space
2. The Social Space
3. The Political Space

These spaces are show in the next diagram:

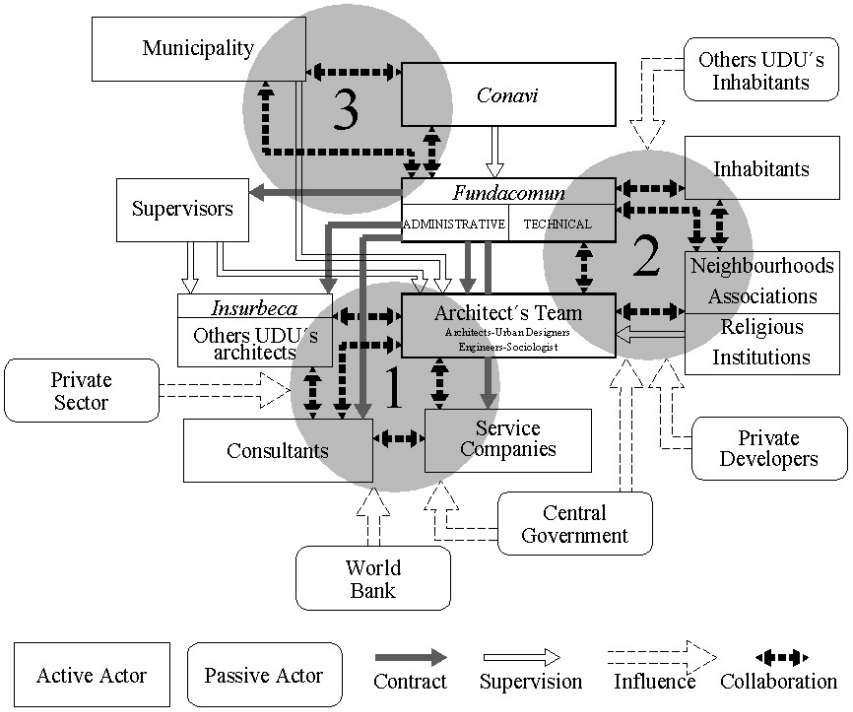

Figure 2: Relationships between the actors.

In each one of these "virtual spaces" specific items will be discussed, making the role of the link actors, *Fundacomun* and the Architectural Team, very important, as they have the responsibility of transmitting the information from one group to another.

Potential Problems related with the Roles of Actors

- Due to the important role that *Fundacomun* and the Architectural Team play, the relationship between them must be clear, avoiding mixing the items related with the contract with the operative ones.
- The double role played by *Fundacomun* could be a problem, because they are in a supervisory position in front of the other technicians, and a

true collaboration could be difficult to obtain. In future processes, it would be better if *Conavi* were in charge of the contracts. Another possible solution could be having two different teams working in *Fundacomun*, each of them in charge of a role.

- *Fundacomun* requires stronger supervision. With the current organization they are only controlled by *Conavi*, and it is difficult to guarantee whether they capacity to carry out the project timing.
- A mechanism must be found to share the information between the different groups in an effective and transparent way.
- The supervisors are in an external position, and do not take part in discussion. Their selection must be made carefully, in order to guarantee that they will not delay the decision-making process. They also must be well informed about the main strategies and the goals of the project.
- The relationship between the Consultants and the Architects could be a problem, because they have a close relationship but there is not a contract between them. Something similar could happen with Insurbeca who, in addition, had lost some credibility during the previous phases. All technical actors should know the contracting conditions of the others, and have realistic expectations about their respective work.
- In order to maintain the project's prices in a low level, the presentation material was eliminated of the budget. This situation could make the participation process less fluid, as the architectural team must ask *Fundacomun* about any additional expenses.
- The municipality plays an important role in the definition of the political space, and must be involved in the process as soon as possible, to avoid delays in the construction phase, and to make good use of its financial capacity.
- The Architectural Team includes many different professionals, which not always are employees of the main firm. This is a consequence of the mechanism used for the selection of the architects and it could be a source of problems and delays, if some of these professionals had a separate role in an already complicate network of relationships.
- The neighbourhoods associations play an important role, but in the specific case of "Los Cangilones", these institutions are still poorly organised, so its strengthening it is one of the first activities that *Fundacomun* should undertake.
- The passive actors play an important role in influencing the decision-making process. All the actors must know their positions and necessities.

Basic Design Concepts

These are the main physical design problems that have to be solved inside the UDU 10.5 "Los Cangilones":

- There are only two small streets, which have a non-acceptable slope (near 25%), so the cars cannot reach the higher zones of the UDU.
- At the East of the UDU there is a very dangerous zone, with bad geologic risk, that must be kept vacant, avoiding any kind of construction.
- In the north side, at the top of the mountain, there is private land that must be protected against future growth of the settlement.
- The UDU lacks all services, and 3 Ha. of land must be set aside, which will be used for schools, sporting and recreational areas and community spaces.

Some of the basic design concepts were defined during the competition, and they are a good point to start the design process. The solution that was proposed for the competition project had the following main elements:

The Roads as a Unifying Concept

The very steep slopes make the use of a road network impossible, so only one main street was defined. This street starts in the Carretera Negra and finished at the top of the mountain. This street was provided with important turning circles, every 100 m.,

because it has only one entrance. The two old streets were partially transformed into pedestrian roads.

Along the new street plots for public use, as schools, community buildings, green areas and squares, were located. The public buildings should be used as urban references, and help to provide identity to the UDU, and interest to the street. For the competition some of them were designed in order to explain the image they could have, but the design of the public buildings is not part of the project. Different architects will design each building at a later stage.

Controlling Growth of the Area

At the top of the mountain a big sporting zone was located. This use should be respected by the community, to avoid growing outside the limits of the UDU. This sports area is near to the private land, where a formal housing development for middle-income people is located, and facilities could be shared with these private developers, providing funds for the rest of the public buildings. The problem of providing land with potential commercial value needs a more detailed solution, and will have to be discussed with *Conavi* and *Fundacomun*.

The growth control in the West side of the settlement is still not well defined. Although in this zone a park was located, the high slopes make very difficult any urban furniture, which could prevent future invasions.

Substitute Houses Located outside the Current Limits

In order to locate the new street and services, about 200 houses must be demolished. As the new houses must be finished before start the construction of the road, it was decided to locate them in a vacant site to the West of the UDU. This location also has other important advantage, because it is very near to the Carretera Negra, making the construction process easy.

In the proposal were included also some housing units inside the UDU, but they will be developed in the advanced stages of the project, if more houses are needed.

A New Pedestrian Network

Part of the existing roads, as well some of the existing public stairs and paths were transformed into a new pedestrian network, which link the new public spaces. These pedestrian roads should define the borders of the condominiums. Most of the existing paths and stairs will be privatised.

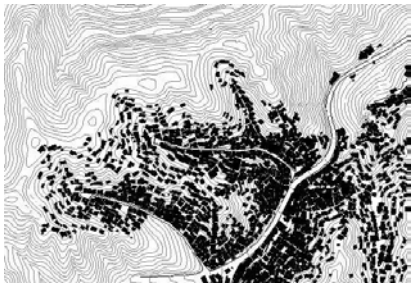

Figure 3: Current situation

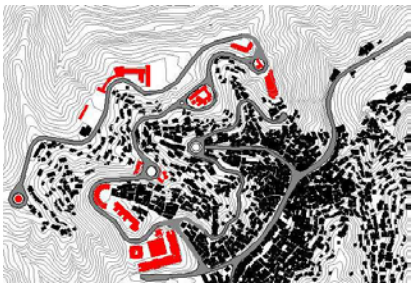

Figure 4: Proposal

The Participatory Design Process

Having the basic concepts indicated in the last paragraph, the next steps are related with the development of the project. These are the main objectives during the design phase:

1. To search all relevant information about the UDU, and present it in detail plans.
2. To guarantee the community participation, and find a mechanism to make this participation useful and effective.
3. To follow the main guidelines established by *Conavi* related with the roads and the services, and guarantee an adequate level of construction prices.
4. To complete the preparatory architectural work for the first construction in time to begin construction in January 2001. (It was the initial date, but

the delays in the contract process made it impossible to carry out.) The whole process takes 9 to 12 months.
5. To co-ordinate between the projects of different UDU's, in order to obtain a logical plan of development for whole UPF.
6. To organize and start-up a Local Project Office.
7. To set a construction program.
8. To maintain the project budget at a level that permit good economical results for the designers, inside the limited resources the government has.

In order to carry out these objectives, the project was organized in the contract into three different parts:

Site Analysis
The characteristics of the UDU must be determined in detail. Information is needed about physical facts, like topography, existing roads and infrastructure, the location of each house and its entrance, as well as information about social issues, such as number of units, number of family members and the use of each building.

Draft for the Urban Project
This includes the designs of roads and infrastructure, the location of substitute houses and the houses that will be affected by the new roads, the definition of different condominiums, and the elaboration of the construction program and the preliminary budget for the roads and buildings. The community must approve this project. The detailed projects corresponding with each phase of the construction plan will be developed according with this plan.

Architectural Project for the first Construction Site
This is the design of the first buildings that will be constructed. In "Los Cangilones" it will be a housing project of 120 units. The principal problem is to determine the kind of houses the community needs, without waiting until the Site Analysis is finished.

These phases do not correspond with a program for the design but they are a way to organize the contract. They will be carried out at the same time as the design process, as it is the only way to complete all the process within the first year.

In order to start the development of a project based on the basic design criteria and then carry out the contract objectives, some important questions must be answered:

- What is the most convenient location of the street, in terms of demolishing the minimum quantity of houses, minimum fills and cuts and an adequate width and slope?
- What will the typology of the new houses be, with a suitable quality and an adequate level of price?
- What is the best way to define the limits between the condominiums?

The answers should be found with the minimum waste of time and resources, and for this reason it is not possible to make the exhaustive topographical study and the surveys that would ideally be needed.

The Street Location

The first question could be answered working with a newest site map, in a more detailed scale. The competition proposal was made using an aerial photograph from 1996, in scale 1:5000. A new map will be needed, ideally from year 1999 or 2000, showing the new houses that have been built in the last years. In addition, a large scale, 1:1000 for instance, could permit an evaluation of the topographical problems. Having an approximate location of the street, it will be possible to make a detailed topographical study including only the affected zone, ten or twelve meters each side or the street axis, reducing significantly the area that must be studied.

Before doing this study, the community must be informed about the progress of the project, and about the new street and its location, in order to obtain their approval for the preliminary location. In this stage it is important that the inhabitants understand the street could change according the topographical study, avoiding attempts of to speculated with the houses will be demolish.

The preliminary location of the street will be also useful to evaluate the design of the services of water, electricity, sewers and phones, and for this reason must be discussed with the companies that provided these services.

After the topographical study, it will be possible to make the final project of the street, and know exactly which houses will be affected. If in the final trajectory there are important changes with respect to the preliminary one, it would be needed a new approval by the community.

At this point, a negotiation process between the affected families and *Fundacomun* will start to organize the distribution of new houses. At the same time, the urban project could be finished, and the construction phases will be defined.

The New Houses

The typology of the new houses is an important issue, which must be defined in the very beginning of the process. Ideally, each family should receive a new house equivalent to the old one in terms of area and number of rooms, but this could mean that all the houses will be different, making very difficult the design and construction process. However, the ideal housing project must have the following characteristics:

- The units must have enough flexibility to be adapted to a different areas and distributions.
- At least some of the houses should have possibilities for future extensions.
- To allow a minimum gross density of about 70 houses/hectare. If a higher density were possible, selling the additional units would be an opportunity to generate funds for the project.
- To be appropriately designed for steep slopes to avoid costly site excavations. Although it is possible to do some modifications in the site, they need mostly cuts, and there is no enough space for the needed fill. For this reason, is better to maintain the modifications in the minimum possible level.
- The image of the new houses should be easy mixed with the existing ones, avoiding the introduction of elements very different to the existing buildings. The only buildings that should stand out should be the public ones. This condition also helps in the development of the community, avoiding segregation between the inhabitants of the new houses and the rest of the community.
- The construction process should be enough easy, to facilitate the participation of small local contractors.
- The construction prices should be as low as possible.

After the definition of the housing typology, which shall be made by the Architectural Team, the community must approve the general concepts of the project. The meeting to discuss this topic could be the same as that for the definition of the street, and the objective should be to show the advantages of the new houses, stimulating the possible affected families to move.

As soon as be known the final trajectory of the street, will be needed negotiations with the affected families, in order to distribute the houses. At this stage, probably will be need to do some changes in the housing project, in order to adapt the houses to the specific families necessities. After the approval of this stage, it will be possible to start the structural and services projects, to complete the project for the first construction site.

The Definition of Condominiums

The definition of the different condominiums and the selection of the paths and stairs that will be privatised needs a detailed map of the settlement. This information can only be obtained by walking through the settlement, and plotting in a map things that are impossible to see in the aerial map, like the number of housing units inside each building, the location of the entrance to each unit, and the use of it. In this work will be also possible to obtain information about technical problems in specific houses, as well as detailed information about the conditions of the paths and stairs.

This is a time-consuming process, and needs to be very well organised, in order to maintain the project budget inside reasonable limits, but at the same time it is a wonderful opportunity for the participation process, promoting informal meetings between the architects team and the community. The obtained information could also be useful in the definition of the street and the selection of the housing typology.

In order to make cheaper this process, *Fundacomun* will contract a detailed survey of the whole UPF, which must obtain some sociological information. The really practical value of this kind of information should be evaluated carefully, due to it is impossible to coordinate the finish of the survey before the start of the project.

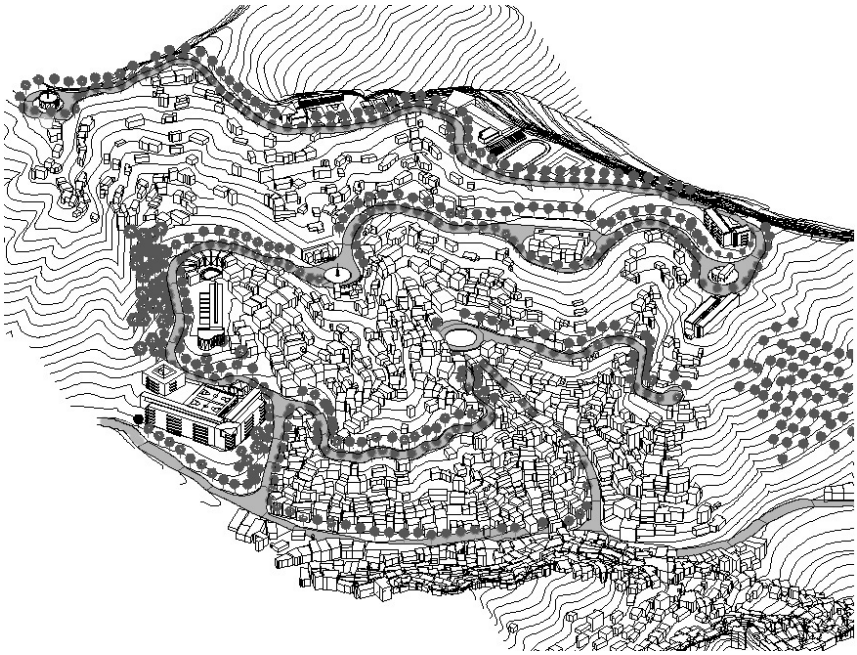

Figure 3: 3D view of the proposal. The image of public buildings is indicative.

Information Needed before starting the Project

In order to start the project with the minimum level of problems, the following points need to be clarified. *Fundacomun* must provide some of required information, but in every case is needed a common accord between the actors.

- What resources are available for the construction of roads, services and houses, in order to work with a realistic approach. This information is need in several formats, for instance, available resources in units like each house or square meter of road, but also the total amounts assigned to the project.
- Minimums requirements about street characteristics. It is very difficult to carry out the current minimum legal widths of about eleven meters, due to the density and the difficult topography.
- Estimated information about the area of the new houses, based on the available resources, the houses built in the pilot projects, and the area of the existing houses. This could be a difficult point to define, due to the huge difference between the area of the spontaneous houses and the minimum official requirements for loans and permits. If special conditions are needed, *Conavi* and the Municipality must guarantee that these special conditions will be respected along whole process.
- Who are the owners of the land, and the specific borders of the National Park, and the private land. One of the bases of the project is that the Municipality owns the land, but the actual detailed limits need to be known. Part of the work in obtaining this information can be done by the Architectural Team, but Conavi is in better position to obtain true information from the Municipality. This problem is especially important in the proposed solution, due to the new houses are in an empty zone that could have different ownership conditions.
- Specific definitions about the streets that conform the borders between the UDU's, due to some technical actor will must be in charge of modification in these streets. *Insurbeca* presented some proposals related to this problem, but they still lack of enough precision.

Finishing the Design

If the three processes listed previously can be started effectively, with enough coordination between them, the next phases of the project will be easier to carry out, and the only kind of problems remaining will be related to the formal delivery of the different parts of the project, and maintaining adequate levels of economic resources through the project.

One possible problem at this stage could be that the process of the project is a continuous interaction between urban planning, the house design and the site analysis, but each of this items are defined in the contract separately, and must be delivered in this way.

The coordination with projects in other UDU´s is not crucial in the UDU 10.5 "Los Cangilones", due to its relatively isolated position, but the Architectural Team in this zone has to participate in the coordination process, and it is important that it do not become a delaying factor.

One important point that has to be defined is the setting up of the Local Technical Office. According to the strategies set by *Conavi*, it should be organized by the architects, but was impossible to include this in the budget. Initially, *Fundacomun* ask for budgets considering one person working in this office during a year, but this is much too expensive. Perhaps would be better to think of a different solution, with the office open to the public for only few hours in a week during the first year. This office has an important role in the participation process and efforts towards its effective functioning must be made.

Conclusions

The success of this project will have transcendence outside the limits of "La Vega", because, together with "Petare Norte", it is the base for the improvement of all spontaneous settlements in Caracas. In this sense, all Architectural Teams must work together, because the success in one or two UDU's is not enough to achieve the main objective.

Due to the project being in its early phases, it is not possible to make predictions about its success, but, unfortunately, there are many different potential problems that could make whole process to fail, and some of them are already real problems. The recommendations given in this paper pretend highlight the main stumbling blocks and suggest ways to overcome them, but in general the solutions are in hands of *Conavi* and *Fundacomun*, while the architects have more restricted possibilities to make changes.

Probably, the most important thing that all actors must keep in mind during whole process is that this is not a simple improvement project, is not enough to just provide roads and services; the main goal should be make city. Caracas must stop being two separate cities, but only one, integrated and offering the same opportunities to all its inhabitants.



References

Villanueva, Federico and Baldo, Josefina
1998 *Un plan de barrios para Caracas* Consejo Nacional de la Vivienda Caracas.

Unpublished Report
1999 *Politica de Vivienda 1999-2004*. Ministerio de Infraestructura, Venezuela.