



Revisiting El Gallo

SIGUS Workshop
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Venezuela



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MIT and Universidad Simon Bolivar group, El Gallo 2002

Contents

foreword – 4

Reinhard Goethert

section one: El Gallo – 9

Description of El Gallo – 10

Aerial Photographs showing Development of El Gallo – 12

Underlying Issues – 14

Was El Gallo a ‘Success’? – 14

What is the role of architects and planners in
this self-settlement process? – 17

section two: Reflections – 19

Home Based Enterprises in El Gallo – 20

Eleanor Fawcett

The Business of Dreams – 30

Marisa Gaither

Beyond Progressive Development:

Public Spaces and Amenities in El Gallo – 34

Michael Mendez

An Alternative House Type for Progressive Development? – 40

Timothy Morshead

The Reinforced Concrete Frame:

Medium for Progressive Development – 48

Michael Spinello

Rivers, Dams, Electricity and El Gallo – 54

Roxanne Figueroa

Information Technology in Venezuela – 60

Christina Erickson

El Gallo Entre Los Ojos Del Niños – 68

Meg Hiesinger

appendix – 79

The Workshop Program – 80

The Workshop Teams – 82

foreword

**“No one
really has an honest answer or a
consequent action that implies any real hope
for the 300 million people of Latin America,
whose number will reach 600 million within 25 years and who,
although desolately poor
in the overwhelming majority,
have the right
to a material life,
to culture
and to civilization.”**

Introduction, ‘Urban Dwelling Environments’ The MIT Press 1969

25+ years has now past - what has happened? Can we start to understand and have we discovered approaches that point us in the right direction?

This booklet contains brief impressions from the MIT participants of a 2-week workshop during Independent Activities Period (IAP) in Ciudad Guayana, Venezuela. The participants were challenged to build on their workshop experience and pursue their individual interests in an imaginative and creative ways: this report is the collection of their essays.

The workshop revisited the El Gallo low-income community, 25+ years after it was initially settled and surveyed. Ciudad Guayana - and the El Gallo settlement - was planned in the mid-60s by the MIT and Harvard Joint Center for Urban Studies. The new town was envisioned as a model for urban planning and development, and included planning for all income groups. A progressive development approach was tested in the project: land was subdivided, some basic

services were provided, and families were responsible for their own housing through incremental, self-help efforts.

Two questions challenged the workshop: 1 - does the experience from the El Gallo settlement support the hypothesis of progressive development that has provided the basis for low-income housing policy in developing countries since the late 1960s? and 2 - How can the architect and professional contribute to progressively developed settlements? Is there a role, and what is it?



The workshop drew on surveys of El Gallo carried out in 1967-68 and documented in the book “Urban Dwelling Environments” by MIT faculty Horacio Caminos, John F.C. Turner and John Steffian, MIT Press, 1969. SIGUS drew on the original drawings and information, and these provided the baseline for the explorations during the workshop.

The workshop team was composed of students from MIT and the Universidad Simon Bolivar, Caracas. They were all in the architecture or planning programs. Three teams were formed with a mix of students from both schools. Each team was assigned one sector of El Gallo, and had the responsibility to identify key issues and search for creative ways of tackling the more urgent problems facing communities as well as their underlying causes. These teams worked directly with the community during the 2-weeks and at the end presented their findings to the community and to outside professionals.

We would like to thank the community of El Gallo for their warm welcome and generous assistance. The El Gallo Community Center team provided daily support and were tremendously helpful during the day-to-day field work: Damaris Lugo, Yuris Cabrera, Nellyn Romero, Ana Mercedes Leon and Juan Aponte. The CVG (Corporación Venezolana de Guayana) provided logistic support and useful background information which greatly facilitated our understanding of the

situation: General Francisco Rangel Gomez, Andres Chemello, Nataly Yepez, Maria Rosa Gomez, and Luis Hernandez Cumana. The City of San Felix generously provided generous assistance at always the right time: Alcalde Antonio Briceno, Hugo Rosas, and Arq. Yanina Battaglia. Urb. Maria Nuria de Cesaris gave us very thorough background to the housing situation, and helped us to better understand the dynamics of development. For all we offer our heartfelt thanks.

Professor Carlos Reimers of the Universidad Simon Bolivar, Caracas, joined us for the first week of the workshop, and was instrumental in making the effort a success. Ten years earlier he had carried out indepth research on housing expansion in El Gallo, and his studies provided a strong base on which to observe changes. It is doubtful whether we could have been so successful without his untiring efforts before and during the workshop. Professor Carlos Caminos of the Universidad de Los Andes joined us during the last week, and helped in the final presentations to the community.

The SIGUS Workshops

This is the tenth workshop in the January workshop series 'Building Communities'. Previous workshops were held in Vietnam, Cambodia, Thailand, Ecuador, Jordan, Peru, India, Northern Ireland, and Poland.

In the workshops, the methods for exploring the issues and identifying interventions were based on a 'community action planning' approach which is community driven, participatory, fast and adaptive. These methods are seen as integral for understanding a new approach to architecture practice.

Several principles guide the workshops:

- Hands-on testing of methods for participatory planning and field surveys, while working in multidisciplinary and multicultural groups.
- Ways of identifying community leaders and other stakeholders as working partners for project development and implementation.

- Reflection on the concept of community and on the relationship between ‘outsider’ and ‘insider’ when deciding interventions.
- Identification of an effective institutional framework for project development and to look at ways of influencing policy through community-level projects.
- Development of presentation skills to suit a variety of settings and audiences.

Reinhard Goethert



SIGUS Graduate Assistants

Gustavo Rodriguez was the graduate assistance for the Fall 2001, and assisted in the preparation and direction of the workshop. He comes from the Dominican Republic, and is in his last year of studies toward the Master of Science in Architecture Studies degree, Technology program.



Eleanor Fawcett was the SIGUS assistant during the Spring semester. She was a participant in the workshop and compiled and edited this summary report. She is from Cambridge, England, and is studying for the Master of Science in Architectural Studies degree, enrolled in the Architecture and Urbanism program.







section one: El Gallo

Revisiting El Gallo: SIGUS Workshop 2002

Description of El Gallo

Location

The settlement of El Gallo is located 1.5km east of the center of the Spanish Colonial town of San Felix, located on the eastern bank of the Rio Caroni. On the opposite bank is Puerto Ordaz, an iron ore mining company town developed in the 1960's. Together Puerto Ordaz and San Felix comprise the area of Ciudad Guayana, today Venezuela's center of heavy industry and fastest growing city with a population of 650,000. The Corporacion Venezolana de Guayana (CVG) was formed by the government in 1960 to plan and develop this area, with the collaboration of the Joint Center for Urban Studies of MIT and Harvard University. Ciudad Guayana is located in the Guayana region of Venezuela, south-east of Caracas.

El Gallo Project

El Gallo was sponsored by the CVG as part of the Ciudad Guayana Development Program, and is on CVG-owned land. The project was designed by a team from MIT and Harvard, and the land was first settled by residents in 1964. The project was based on a progressive development principle, with priority given to providing secure land tenure and essential community facilities including defined building lots, graded but unsurfaced streets and schools. Dwelling units are built in stages after the owner-occupiers establish themselves in temporary shacks, and public utilities are subsequently provided with the involvement of the residents.

The neighborhood was planned with a large central area reserved for school, playgrounds, and a community center and facilities. Initially blocks contained open spaces for communal water supplies, but as homes received individual water connections, these areas became plots for development as houses. All streets are accessible to both pedestrian and vehicular traffic.



Aerial Photographs showing Development of El Gallo



1964

The initial settlement about 1-year after habitation started. Note that the main streets surrounding the area are not developed, although the interior streets are all graded and right-of-ways determined. Only a few of the houses are started - these are the limited 'starter units' built by contractors. These were intended to 'jump-start' the development of an image and identity, as well as providing a model for the self-built housing. Note there is no development immediately surrounding the site.



1967

About 4 years after development started. Essentially all of the plots are occupied. The two main surrounding streets are completed, providing ready access throughout the city. The public facilities have been completed, as well as the ballpark outside of the site. Interior roads are still not paved. Note that the plots adjacent to the main bordering through streets are still vacant. The area has attracted extensive development on its periphery to the south. Note the planned green areas cutting through the site to the public facilities in the center.



1980

Approximately 17 years after development started. Interior roads are now paved. The properties on the south border street are now developed, paralleling the through street connecting to the city center and to the region. These plots were sold at market rate for commercial enterprises to subsidize the development costs. The planned green areas are not converted into housing.



1987

Approximately 24 years after development started. The settlement process is complete.

Underlying Issues

Two broad issues underlined the workshop:

- Was El Gallo a Success? Could we draw conclusions to guide future developments targeted to the low income?
- What is the role of architects and planners in this self-settlement process? Are we mere observers, or are there vital inputs that we as spatial professionals can and should contribute?

The following were noted as the ‘sense of the team’ based on discussions and debates among the members. No attempt was made at a systematic and rigorous evaluation. This was seen as a first workshop of this nature and an open-ended approach was adopted in the evaluation. Despite the tentative nature of the workshop, responses from the community and impressions by the team led us to include the following comments.

Was El Gallo a Success?

A more definitive conclusion may be achieved by comparison to other developments started at the same time as El Gallo. These would include squatter settlements, similar site and services projects, and other housing programs. However, the team felt that tentative inferences could be reasonably be made, but should be viewed with care:

- El Gallo as a model strategy

El Gallo today has a diverse community, with a range of incomes, houses generally built to a high standard, family size, ages and businesses, and a mixture of new and original residents. It is perceived as a desirable neighborhood by the residents, and has a strong market in residential and commercial properties. Surrounding neighborhoods remain in a poorer physical state, contrasting with the better quality seen in El Gallo.

Fundamentally, the quality of life for El Gallo's residents has increased significantly since the community was established, which may be at least in part attributed to the opportunities provided by the project. In this regard the 'sites and services' model can be seen to have been successful.

Today the community is confronted by persistent problems that affect other low income neighborhoods as well; for example, irregular water supply, security, transportation links, and maintenance of public spaces. However, the base provided by the initial plan is sound.

- Replicability of El Gallo

Throughout the development of El Gallo, the CVG has played a very significant role; it is unclear how successful El Gallo would be without its major support and investment. In addition, El Gallo is favourably located at the intersection of two major roads: would it have been as successful in consolidation if in a less accessible and desirable location? Thus, factors beyond the control of the initial 'sites and services' model for El Gallo have contributed to its success, perhaps reducing the possibility of replicating the success to the same standard.

- Plot Sizes

Individual plots are generously sized at 12 meters x 25meters. We observed in El Gallo that this has proved to be large enough to accommodate family expansion and enable extended families to remain together in one location, as is common in Venezuela. This also allowed improvement in quality as families became more successful. The ability to stay in the community clearly contributed toward a more stable community and the generous plot size was a necessary component.

- Security of Tenure

The land security already provided initially removed the pressure to rapidly develop the plot, experienced by illegal 'invasion' settlements. Families could make better investment decisions concerning house expansion without the need to rapidly consolidate, and shift their scarce resources from food, health, etc.

- Community Cohesion

An indicator that El Gallo has moved up the social scale is that its residents are more independent today; there is less emphasis on the importance of the community.

Initially a very strong community sense successfully developed, as residents helped each other build houses, obtain services, etc. But as El Gallo became established this was difficult to sustain with the absence of structures to create new community links. A perverse indicator of success?

- Community Center

Inclusion of a Community Center in the El Gallo project was seen as a mechanism to achieve a sustainable strong community, but its role was not clearly understood or defined. Today the Community Centre is still important, drawing people from the local area to classes, and thus contributing to El Gallo's identity. But the CVG continues to manage and support the Community Center, including payment of staff salaries. Therefore the Center is perhaps not as closely linked to the local community as envisaged, and sustainability is unclear.

- Layout of El Gallo

The positioning of the plan onto an area with strong natural drainage patterns led to continuing problems with erosion and flooding. However, this does not appear to have a substantial effect on El Gallo, since relatively small areas are affected which are not in central areas of the community.

What is the role of architects and planners in the self-settlement process?

Three areas of contribution were noted. However, the manner of practice would have to change. In addition to the customary skills of architects, other skills would now be necessary, particularly those in working with community groups and ways of working together - essentially listening and working as a team.

- Participation in spatial planning decisions and in settlement layout.

These very basic spatial design decisions influence the costs of servicing in the future: the street network, water supply network, sewage disposal, electricity network, and the all other linear-based provisions. It affects both the original capital investments, as well as never-ending maintenance and operation. It was noted by the mayor that the key problem of the city of San Felix was the excessive streets, and the city's inability to provide services. The reservation of land for schools and other necessary public facilities must also be pre-determined. One of the major problems in upgrading settlements is the lack of space for schools, and often housing must be demolished to accommodate their provision when upgraded with full services. Professional intervention at the critical initial settlement stage is important to the long term 'health' of a community. Pre-planning of the layout as in El Gallo contributed greatly to the current success of the community.

- Participation in house design? Perhaps.

The houses observed in El Gallo were generally of good quality, both in construction and in arrangement. The model houses included at the beginning - finished units at a higher cost - probably contributed to this relatively uniform good quality. Architects could provide useful input, but would need to work differently - standard practice is not viable, and the issue of 'how to reach' the families is important. Model units, help guides, and on-site support centers would be useful. Architects must also be skilled in construction and materials, and in contracting, but perhaps builders may be more

useful in this role? Families developing their units often need support in small-scale management of construction: are architects able to provide this?

- Participation as facilitator and intermediary.

The architect could play a major role in linking community concerns with municipality interests. Several roles would be useful in this regard: as technical interpreter of codes and regulations is important, as advisor on community development goals helping to articulate a vision and image and as the general technical interface. Often NGOs (non-governmental groups) provide this role, but often lack a technical and planning background although they are stronger in social support areas.



section two: Reflections

Revisiting El Gallo: SIGUS Workshop 2002

Home Based Enterprises in El Gallo

Eleanor Fawcett

One of the most striking things for me in El Gallo was the pervasiveness of small scale commercial enterprises throughout the community – ranging from selling traditional remedies from home by word of mouth, to large shops; from renting out a spare room to renting the majority of the site to an outside business. This pattern of land use appears typical of low income communities in Venezuela and many other developing countries, but significantly different from those found in similar types of urban residential communities in the West, where commercial and residential activities are much more segregated, and commercial enterprises operating from the home are rare. These small businesses seem to play an important role in El Gallo, both in terms of defining its character and contributing to its success. Indeed since 1999, the Community Center has been focusing the classes offered on encouraging small businesses, through teaching basic skills such as sewing, baking, and business skills such as book keeping and applying for micro-loans. The aim of these classes is to enable individuals to be self dependant, and they are also attended by many people from surrounding communities.¹

In order to further investigate this observation, this paper will analyze the nature and extent of commercial activities currently in El Gallo, using data collected on site. An outline of the presence of commercial activities during El Gallo's development will also be included, to put the contemporary situation in context. Finally this paper will attempt to draw conclusions about the significance of these activities for El Gallo, and also within low income environments more generally.

¹ As described by representatives from the CVG, 17 January 2002

The significance and role of small businesses in low income communities

Over the past decades the important role of microenterprises, or ‘home based enterprises’ within the informal sector has been increasingly acknowledged – there is evidence that as much as a third of the population in developing countries derive their income from this sector². These small businesses include a wide range of activities from rural traditional crafts to the first steps in entrepreneurship taken by unemployed individuals for whom the formal sector has been unable to provide gainful employment, and embody an impressive array of initiatives, skills and talents. They also generate employment and can offer a means of training people in transferable skills for future employment in the formal market.



commercial activity in El Gallo 2002

Recently aid agencies have been focusing on developing effective forms of assistance to microenterprises, as a means of producing far-reaching improvements in impoverished communities (micro-loans etc). Microenterprises mobilize a family’s resources effectively, and are easily adaptable to economic/family change.

Home based enterprises are also very significant in considering the value of home ownership within self help communities such as El Gallo. In his paper *In what ways does a self-help house constitute a good investment?*, Alan Gilbert argues that in reality home ownership in self help communities is not a source of capital accumulation as often assumed, because the properties are rarely sold, and loans required to buy a such a property are far beyond the reach of most potential purchasers, therefore they have limited marketability. However, he argues that their real value as in their capacity to generate income for the owners by operating businesses from the premises, or renting areas to lodgers. A great advantage of self help housing is that they can be built with the idea of accommodating other activities in mind – the houses are generally larger than formal

² Microenterprises in Developing Countries, p. xvi

sector houses, with more rooms and separated areas for owner and tenants. In contrast, formal houses are generally built in a way that is unsuitable for letting rooms, and are effectively designed for a nuclear family with only 2 or 3 rooms which are difficult to share.³

Historical presence of commercial activities in El Gallo

Small home based commercial enterprises have been present in El Gallo almost since its inception. In 1967, just 4 years after the project began, it was noted that ‘field observation has revealed that the local shops are scattered throughout the area’⁴ This is confirmed by photos dating from this time which show various modest commercial activities already operating.

This trend towards small home based enterprises is also reflected by modifications and changes observed in the functional layout of the dwellings being made during the early phases of the project. The typical pattern of development of a site would be as follows: a period of living in temporary dwellings, after which a basic permanent dwelling would be built, which may include ‘small shops, laundry and other income-generating areas...to help to support the household economy’⁵. These small commercial enterprises were often



corner stall and refreshment shop, El Gallo 1967

³ Gilbert, A, *In what ways does a self-help house constitute a good investment?*, Paper presented at CARDO conference, 2000

⁴ *Urban Dwelling Environments*, p. 218

⁵ *Processes Associated with the Evolution of Dwellings Produced by Progressive Development in Venezuela*, section 3.2

significant for the stability of the household income, as the primary jobs held were characteristically unstable at this time (e.g. street/market vendors, unskilled construction workers, security personnel). The first subsequent additions to the permanent dwelling would typically be improving living spaces – adding an extra bedroom or enlarging the kitchen, then later changes would be focused on creating larger income-generating areas, such as constructing shop spaces or rooms to be rented. Therefore as a result of this pattern of development there are essentially two types of commercial activity: ‘first generation’ small, household operated activities, occupying areas within the house, and ‘second generation’ larger units, often rented to outsiders by the household and occupying space not inside the house.

Examples of both the early smaller household-run and also more recent larger rented types of commercial activity can be found in El Gallo today. The former typically cater to the local community and passers-by, selling refreshments and snacks and offering basic services such as laundry, sewing. The latter are generally larger establishments and have a wider market which includes other local communities as well as El Gallo residents, and typically offer a service such as auto repair, furniture or home appliance repair, dentist, martial arts classes.

Analysis of current situation

Data was collected on site about the size and type of commercial enterprises in El Gallo. The scale of the units was determined by an evaluation of the proportion of the site occupied by the commercial activity, and its presence on the street, as follows:

·Small – only a small sign advertising the presence of the activity, activities which did not appear to be a main source of income for the household e.g. ice cream/juice sales, goods for sale on the sidewalk.

·Medium – activities operate from dedicated space on the site, clear presence on the street e.g. refreshment kiosk, dentist, vegetable/fruit stalls, hairdresser.

·Large – activities occupy more than half of the site, street elevation is dominated by the presence of the commercial activity e.g. general stores, church, liquor store, car repair workshops.

The enterprises were categorized into three types, chosen to suit the range of activities I had observed. These categories were:

·Services – e.g. auto repair shops, furniture repair workshop, dentist, hairdresser, church, karate classes, gas canister sales.



·Refreshments/food – e.g. ice cream/juice stalls, café, snacks, vegetable/fruit stores.



·Other retail – stores typically a general store selling basic household goods and supplies as well as refreshments and food.



The renting of rooms to lodgers was not included in the data collection; neither were commercial activities which did not have a visible presence on the street.

The survey was carried out within a sample area within El Gallo, which included 49% of the total house sites. The sample area included every 'type' of street, to give data which was the most representative of the whole community. These street 'types' included main access roads, main distribution streets within the community, the street around the communal area, and quiet neighborhood streets. The survey only looked at activities on sites laid out for dwellings, and does not include the central communal area, or the large commercial sites fronting Avenida El Libertador (forming the western edge of El Gallo).



Based on these parameters, I believe that the data collected can be assumed to be representative of the whole El Gallo community.

Results of the survey

In total, it was found that 23% of the sites surveyed housed some kind of commercial enterprise. This figure parallels the findings of a survey made in low income informal communities in Bogota, where 20% of houses were found to contain a commercial activity.⁶

Of these, services represented the highest proportion at 52% of the total. Most of the service activities were located on the busier roads, in particular there were at least seven auto repair workshops located along Calle Charaima, the busy road forming the northern boundary of El Gallo. Many of these service enterprises also catered for people coming from outside the community as well as El Gallo residents. To continue this study, it would have been interesting to further analyze the types of service activities within the community.

Of the remainder, 35% were refreshments/food vendors, and only 13% were other retail activities.



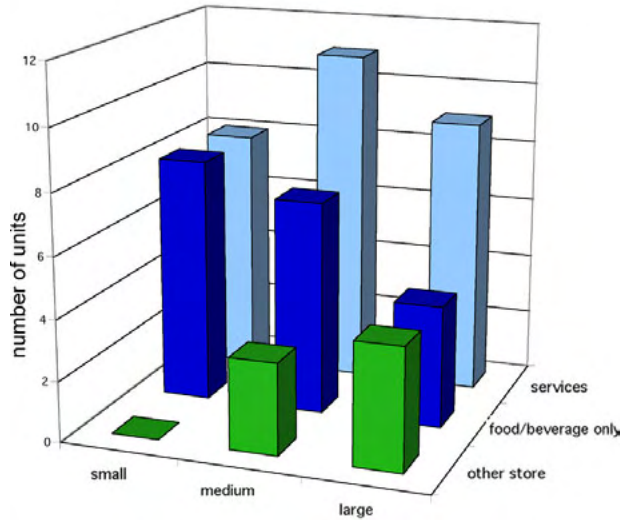
■ services ■ refreshments/food ■ other retail
type of activity



■ small ■ medium ■ large
scale of activity

⁶ Gilbert, A, *In what ways does a self-help house constitute a good investment?*, CARDO conference, 2000

These were located more often on the quieter side streets, with the general stores generally located on or near street corners for greater visibility and maximum passing trade. These activities seemed to cater mainly to the local residents, and were typically smaller enterprises which would require far less initial start-up investment than the service activates.



The scale of these units was fairly evenly divided between small, medium and large, with a slight majority of medium sized units (39%). Many of the large scale activates are located on Via Arula and Avenita Terepaima, the major roads entering El Gallo from surrounding streets, and along Calle Charaima, the eastern boundary road. Overall the commercial activates appear to be quite evenly distributed across the community, although there is more structuring of activities based on type of activity.

Conclusion

Home based enterprises such as those found at El Gallo are of significant value to a community for a variety of reasons. Points already mentioned include their flexibility to absorb and respond to changing family circumstances, providing a possible route into the formal sector and increasing the value of the home for the family. In addition, home based activities are an important means for women to be involved in and contribute to the family's financial situation. It has been observed that in Latin America most such

enterprises are female-operated.⁷ Home based enterprises are also an important component

⁷ Strassmann, W. *Home-based Enterprises: Two Issues*, paper given at CARDO conference, 2000 in the development and sustainability of a community sense, as they provide a mechanism for social networks to be extended beyond the home, and an informal meeting place for local people.

I believe that the home based enterprises at El Gallo have been a very important factor in the success of the community, and that their success has been due in part to the large sites allocated for each dwelling. With each household occupying an area 12x25m, there is a great deal of scope for accommodating activities in addition to the household's needs, and thus for improving the family's financial situation. It has been found though experience with core houses on site and services projects, where families let additional rooms as they are constructed instead of moving in themselves, that for the poor, income was a greater need than space.⁸ In the survey in Bogota referred to earlier, it was found that in the self-help settlements, two-thirds of households rent rooms to lodgers⁹. It is possible that a similarly high level would be found at El Gallo, which further reinforces this argument of the economic value of generous plot sizes.

Based on typical models of community development, higher income formal communities contain fewer home based enterprises: the Bogota study found that in formal settlements the incidence of commercial activities per house was 12.5% and only 11% of houses contained tenants.¹⁰ Based on this observation, it is not clear whether commercial activities will gradually move out of El Gallo as it continues to thrive and become more affluent. An interesting contemporary trend to counter this traditional model is the rise in home based enterprises in the USA, increased from five to twenty million in the past fifteen years, primarily due to the possibilities afforded by computer and internet use. Thus it is possible that a new model could develop, whereby the number of home based enterprises remained relatively constant, but their nature changed over time. This would seem to have a positive benefit for El Gallo, as the strong community sense and social networks would not be damaged.

⁸ Strassmann, W. *Home-based Enterprises: Two Issues*, paper given at CARDO conference, 2000

⁹ Gilbert, A, *In what ways does a self-help house constitute a good investment?*, Paper presented at

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¹⁰ ibid

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Eleanor Fawcett is a first year student in the Master of Science in Architecture Studies degree program, within the Architecture and Urbanism specialization; she did her undergraduate studies at Cambridge University.

The Business of Dreams

Marisa Gaither

The ‘success’ of El Gallo was the proposed question to investigate as we began this project. Looking at a planned squatter settlement thirty years after its inception provides ample opportunity to reflect on what a successful settlement looks like, feels like and acts like. Leaving El Gallo many of us felt that although we could not define success, El Gallo had none the less achieved it; if nothing else than simply by being better off than its surrounding communities. Yet it remained an idea that many were unable to clearly define or articulate. Most poignant for me is the idea that as planners, architects or academics we are unable to envision success. What does it mean to be working towards something we are unable to define, unable to taste or know when it has arrived? If we lack a vision can we informatively plan? Should we assume the vision of residents, the community; do we facilitate their dreaming? Do we know how to do that?

One area I came to El Gallo interested in exploring was the way families utilized their home for business. The relatively small community of El Gallo (about 400 families) had a wide variety of home-based businesses and there was a customer base that reached outside of the community. Most often women who did not work outside the home had some sort of small business enterprise, selling small goods, most often food products. These women were often older, either retired or never worked, and some were the sole income producer for the family. These businesses were often informal and distinct from the men’s business.

This sign for tetas (an ice cream treat) alerted passersby to the business, a more formal sign was placed against the house. The woman running the business had done so for over ten years as supplemental family income. Yet the reorganization of her space for the business was minimal; a simple cardboard sign and a cooler was sufficient.



tetas for sale (an ice cream treat)

Other businesses sold a wider variety of goods. The business shown below sold soda, sweets and some local foods, it served as the family's sole income producer. and was owned and run by the female in the one parent family. The extended Velasquez family was headed by the matriarch, and included her three children, one daughter-in-law, one grandchild and one on the way. Her married son worked part-time, and the other daughter and son minded the store.

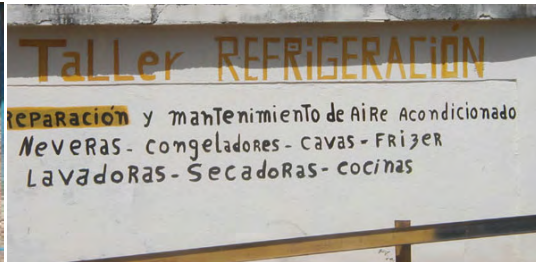


general store owned by the Velasquez family, El Gallo

Stores owned and run by men were more likely to offer a trade, skill or more complex goods for sale. The sign on the left offers spare parts, for machinery and cars for sale, the owner also would fix or repair the goods once sold. The sign shown below on the right offers the repair and sale of refrigerators. These businesses were likely to utilize an entire lot, which originally had been planned for housing but no longer served that function. There were interesting connections to the type of business, the owner and the segmentation of space.



car body repair shop sign



refrigerator repair shop sign



furniture repair shop sign



laundrette sign

Another notable feature of El Gallo Business was the growing variety, while most often we came upon very small store selling a few distinct items, other businesses included, auto repair and supply stores, clothing stores, bakeries, furniture makers, curio shops, cleaners and even a karate school. The industry diversification was personally something I had not expected to see in El Gallo. These businesses were increasingly reliant on the ‘outside’ world to exist as profitable businesses and were sometimes the sole mechanism for family income (whether male or female owned). This connection to a larger community, creating new avenues to building wealth seemed apparent in El Gallo.

This became one way for me to evaluate ‘success’. Have the residents of El Gallo become more self-sufficient, are they generating and exporting goods in return for increased capital? Do they have some level of autonomy in their life decisions? Entrepreneurship and successful business ownership can be one lens through which to assess the fulfillment of these questions.

Perhaps in El Gallo success is about opportunity. The ability to have access to multiple options for the way a family chooses to live and a community chooses to grow and the ability to exercise those options. At some basic level a community must first be secure, housed and fed. El Gallo, in many respects has achieved this requirement. Do the people of El Gallo have the opportunity to act upon their dreams? Starting a business, self-supporting a family is a sustainable way, creating new channels of capital, developing a personal vision are all some of the pathways to a successful community. Entrepreneurship can be one way to explore this question of success.



karate club, El Gallo



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Beyond Progressive Development: Public Spaces and Amenities in El Gallo

Michael Mendez

The revisit to El Gallo, Venezuela 38 years after the community was established, revealed that the Site and Services approach (Progressive Development) achieved many of its desired objectives. The progressive development strategy of providing basic shelter and services in the simplest and cheapest way has in fact allowed for the gradual improvement of housing structures in the area.

Furthermore, the strategy of asset building in stages has created a unique community of mixed-income. Since, housing is developed in stages, many individuals were able to accumulate personal savings not only to invest in housing but other necessities as education, microenterprise and personal vehicles. This has resulted in a community of bridgeheaders, consolidators, and more importantly status seekers.

Accordingly, these conclusions are based on empirical research during our stay in El Gallo. The empirical research revealed that while there were still an ample amount of homes that have not yet evolved and individuals that can be classified in the bridgeheader stage (individuals seeking to establish themselves in the urban system), there were perhaps an equally large amount of status seekers (individuals firmly established in the urban system) and consolidators (individuals who have obtained a relatively firm position in the urban system but are at risk of losing it unless he or she can strengthen their newly attained socioeconomic status) in the community. This was apparent by the modifications made to many homes, such as the additions of rooms, and the remodeling of homes and facades in a baroque style. Homes in El Gallo also had many amenities such as satellite television and well-maintained floral and vegetable gardens. Our research also showed many



remodelled house, El Gallo

homes with at least one automobile and quite often these vehicles appeared to be less than fifteen years old. Furthermore, microenterprises seem able to develop and flourish in the community, perhaps suggesting that individuals have disposable income to spend on other than just for subsistence.

Specific Recommendations relating to Public Spaces

The progressive development approach has produced a community of mixed-income, resulting in the need for modification of the development objectives of El Gallo. Since the community now has residents that are also consolidators and status seekers development objectives should now reflect this. The development plan of El Gallo should continue to contain elements for consolidators and bridgeheaders, such as securing permanent housing but it should also include elements for the rising group of status seekers by supplying amenities, such as recreational facilities and public gathering spaces.



patio informally created on street median, El Gallo

Formal Gathering Places

Our empirical research revealed that there is a need for formally established public gathering spaces. Often we witness residents both young and old sitting on the curb of streets in the hot sun conversing. The large park located near the Camino de Cuzes (walk of crosses) lacks permanent sitting areas and individuals have created makeshift benches out of logs for seating. In addition, some homeowners have informally appropriated land on the traffic islands directly in front of their home as their own. They have converted the land into a covered patio area, where they are able to spend their leisure time comfortably. Some homeowners have also converted the land to an uncovered patio area with a flower garden surrounding it.

Consequently, it is necessary to formally establish public gathering spaces to ensure that every individual in the community has an equal opportunity and access to this type of amenity. Allowing homeowners to appropriate the land as their own may inhibit the ability of others to use the few centrally located spaces in the community because residents



checker board table

may feel that since they did not build the gathering area they do not have rights to it or because the builder may claim exclusive use over the area. Moreover, allowing individuals to develop makeshift gathering areas may result in unsightly and unstable structures.

Additionally, the few areas that have been designated as formal gathering areas have been developed in an unappealing and uninviting manner. Unpainted concrete benches (bus stop style) have been erected without tables. Since there are no tables, individuals are unable to eat or drink comfortably, and must play games in awkward positions. Formal gathering areas should include appealing and comfortable benches and tables. The tables should also have tiled game boards, such as checkers so that they can resist the elements (rain, ect.).

Recreational Facilities

Our researched also demonstrated that there was a real need for additional recreational facilities such as soccer fields and basketball courts. Many residents complained about teenagers overtaking the facilities at the elementary school and not allowing the grade



graffiti marked wall, El Gallo

school children access. As the community grows, both young and old residents will demand areas for recreational use. Therefore, El Gallo must provide an adequate supply of recreational facilities to satisfy the demands of all groups. The community must focus on providing amenities that are needed to maintain the community in good condition.

Mural Projects

Several of the streets in El Gallo had long and continuous walls often marked by graffiti. A possible community development project may be to enact a mural and arts project. A mural project would rid the community of graffiti and introduce the residents, particularly the youth to art and culture. More importantly, it would be a vehicle for residents to express themselves about any pertinent issues affecting their lives and community. Mural projects also help define the image and culture of the community. Mural projects are a community driven arts project that fosters the creation of indigenous art.

Conclusions

The site and services strategy developed in 1964 seems to have met its objectives of providing basic shelter and services in the simplest and cheapest way. This approach also allowed for the gradual improvement of homes in stages, resulting in a community of mixed-income.

Due the mix of income levels in the area it is now necessary to redirect the develop objectives of El Gallo to meet the demands of all groups in the community. This report has outlined amenities such as public spaces as a specific area to be reevaluated when determining the new development strategies of the community. The recommendations provided for public spaces and additional amenities may assist in maintaining the community in good condition.



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An Alternative House Type for Progressive Development?

Timothy Morshead

The traditional rules of architectural criticism seem far removed from third world, low-income housing. I refuse to look at a cinder block box that a man builds to keep his children out of the rain and proceed to criticize his use of form and proportion. The community of El Gallo taught me that architecture, in the context of low-income housing, is a primarily social art. The means by which people built their homes and the resulting forms are driven by family evolutions, economic aspirations, and community pride. To evaluate these kinds of houses, one must be mindful of: (1) the criteria for success set up by the inhabitants and (2) the nature of the successive additions and alteration which have resulted in the present home. In this paper, I will try to establish some priorities the have guided El Gallo community members as they built and expanded their homes, either from given plans or their own designs. I will then offer an alternative design proposal as a way of matching wits with the builders.

Could I, as an architectural professional, have offered any design assistance to these people as they built their homes? Could I design a basic house type that might better accommodate the needs, desires, and ambitions of local residences than those models offered by the local housing authorities?

My conversations with El Gallo community members and those of other prior researchers reveal design issues—at the scale of the dwelling—that are of pre-eminent importance to local residents. I will list many and then elaborate on a few. Some concerns of the residents were cost, expediency, overall dwelling area, specific room sizes and

locations, security, spaces for commerce or rental, privacy without isolation, fresh indoor air, and space for family expansion.

Cost and expediency are obviously of utmost importance, especially in the early stages of site development, in order to get a substantial roof over one's head early. This is why many in El Gallo said they chose a core house planned and/or built by a housing authority. Once the dwellings are established, building activity is less urgent and occurs as financially feasible.

Overall house size was often cited as “too small.” By nature, progressive development starts small and grows. But many residents, from the beginning, were very specific about the size and location of certain spaces—the kitchen in particular. Carlos Reimers (Evolution of Dwellings in Progressive Development Projects: Case Study El Gallo, Ciudad Guayana, 1992) found that among families that moved into stock houses provide by a housing authority (Malariaology or Funvica), the first addition was usually a larger kitchen in the middle or the rear of the lot to accommodate in-kitchen dining. This kitchen usually had direct access to the yard so that one could cook inside and clean outside¹. All three houses which we surveyed had kitchen additions.



fig A: walls, gates and single entries added to homes

Residents frequently discussed security. Walls, gates, and single entries were built to safeguard children and to protect the material investments of the owners (fig.A). Despite this security and the privacy it creates, residents seem to value places to “chat in the front yard”². Verandas and porches, both front and rear, are popular for community socializing and for fresh air. But two residences to which we spoke complained that this same fresh air does not permeate into the house more. Bedrooms and kitchen often lacked adequate ventilation.

Frequently, houses in El Gallo were designed or expanded as economic vehicles for their owners. A majority of dwellings contain a commercial space (small shop, laundry

or repair) and/or a space for rent to tenants. Residents often expressed a desire for these spaces to be detachable—for tenants to have their own entries where possible.

Finally, Venezuelans expressed again and again the value of family togetherness. Homeowners almost invariably added new bedrooms to their homes as the family increased in size. Some bought adjacent or nearby lots. Some expanded their home into two stories to accommodate brothers, sisters, in-laws, and cousins. Though not directly articulated



fig B: densely built plot

by the people with whom we talked, the reality of family extension implies a need for a flexible house that allows for change over time. This need for flexibility was also manifest in the need for houses to change as El Gallo has changed. El Gallo began in the 1960's as a relatively isolated community on the outskirts of town. As the town of

San Felix has grown and expanded, the El Gallo has been engulfed by development. Now the community sits at the intersection of two cross-town boulevards. This new context imposes urban pressures on the community. Plots in El Gallo are becoming increasingly

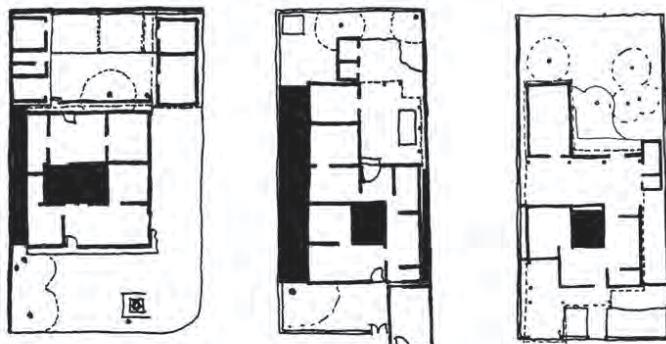


fig C

 = ISOLATED BEDROOMS & WASTED SIDEYARDS

dense (see fig.B) More levels. More square meters. Higher population. This only increases the need for flexible house designs as well as designs that allow for expansion without compromising light and fresh air into existing rooms. In many homes, rooms become isolated on the inside of the buildings (see fig.C).

I attempted to address these issues in the design and extrapolation of ‘House C’, which is illustrated on later pages. I use the term extrapolation to highlight the predictive element inherent in designing a “core proposal” for a house in this situation. El Gallo dwellings started small and grew. And to some extent, the core with which they began, be it the rancho or the government built/designed house, influenced the nature of the spatial extensions and additions to the house as well as the quality of the final product. Though we think of El Gallo (and progressive housing in general) as being self-built, we cannot ignore the fact that 55% of the homes in El Gallo were built by housing authorities and 18% were based in part of plans provided by the El Roble pilot project³. Furthermore, the builders of the 27% of homes that were purely self-built no doubt drew on the housing authority models as inspiration. Thus, the design of a model house core can be an effective means by which to influence to development of a neighborhood. And in order to be effective, the designer of such a house must predict the ways in which a home might be changed and expanded over time.

The proposal that follows explores one possible procession of growth on a site, and how such growth can proceed on terms that are compliant with the priorities of the people there. I do not propose this design as a universal solution—simply as a set of ideas to broaden the physically house planning repertoire which exists in El Gallo.

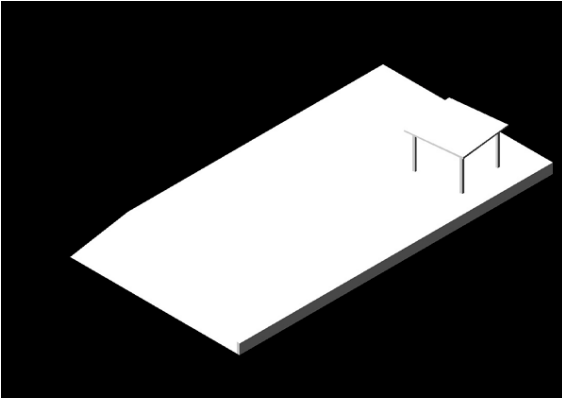
Endnotes

1) Reimers A., Carlos A. (1992) “Evolution of Dwellings in Progressive Development Projects: Case Study El Gallo, Ciudad Guayana.” Masters Thesis. Montreal: McGill University. pp.60

2) IBID. pp.32

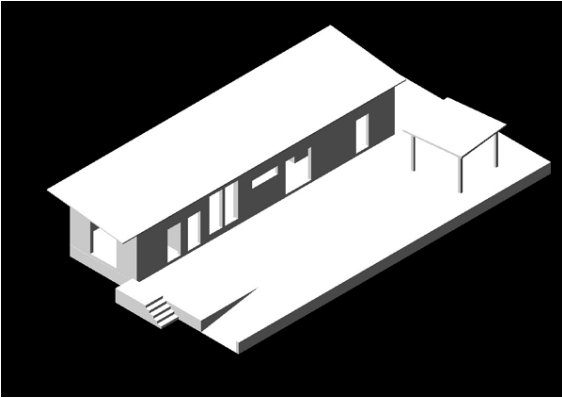
3) IBID pp.25-30

1

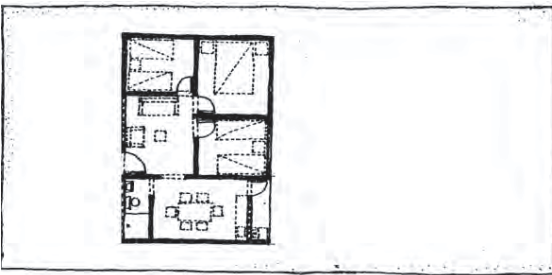


The plot of land is 12 meters by 26 meters. A 'rancho' (temporary shack) is built on site.

2

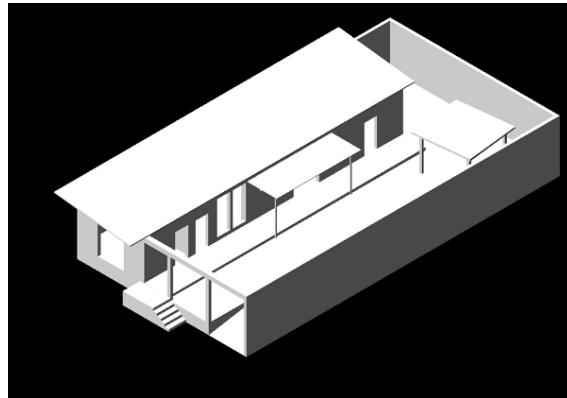


The core house is built either by the owners or by a housing authority or government ministry. The house is a singular, 5 meter wide, linear mass aligned with the site-line on one side of the plot. Many of the existing models build a house on the center of the site with small side yards(see below). The expansion of this type occurs outward, thus isolating the original scheme from light and air. The approach I propose addresses the periphery of the site while retaining control over the light and air in the middle. Expansion may occur at any point along its length. There are no useless side yards created.



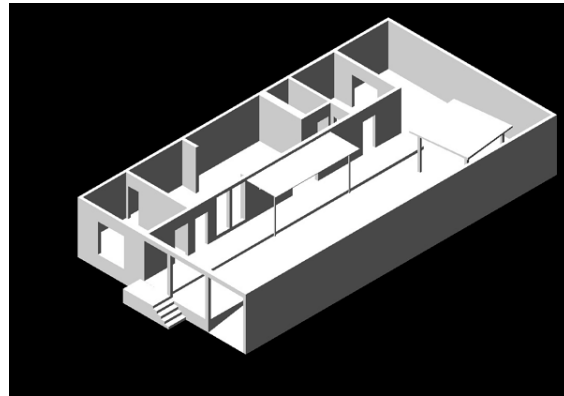
existing core house model

A wall to establish site boundaries, security and privacy.



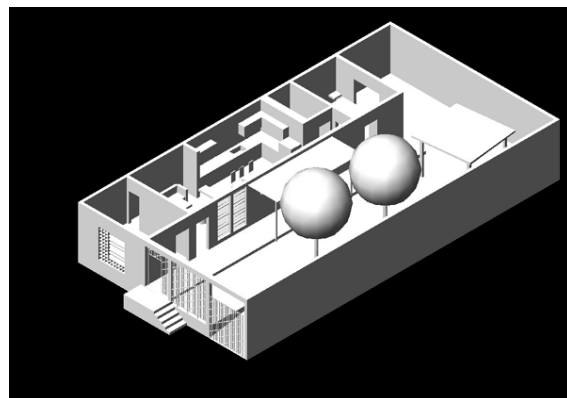
3

The kitchen occupies the core of the house with a covered patio facing onto the central yard for cleaning and hanging laundry. This kitchen core might be built with a concrete slab roof to accommodate later expansion to two stories. There are two large bedrooms at front and rear that could be subdivided by a curtain. Many existing schemes are arranged around a central double-loaded corridor. But why spend the money to build over circulation space in such a warm climate? Here the circulation is pushed to the outside.



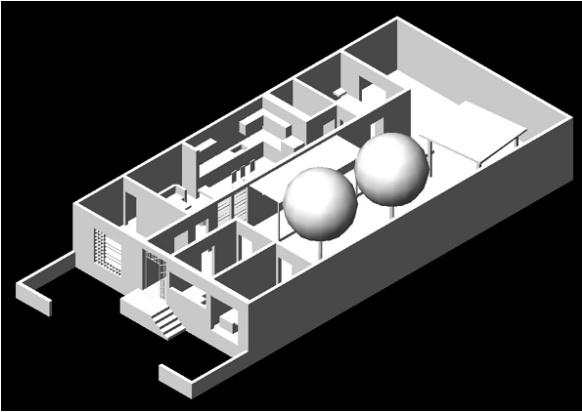
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The yard space could be secured and differentiated into garden spaces, veranda spaces, car parking, and material storage as required.



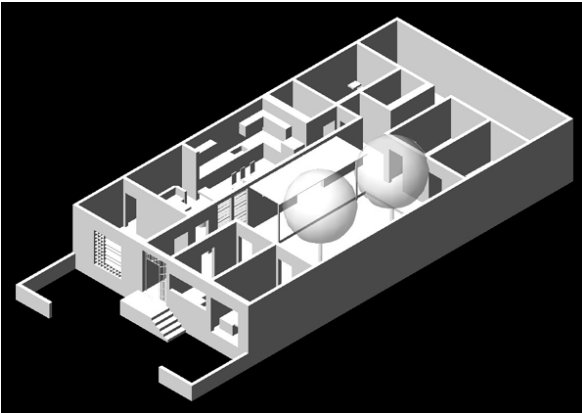
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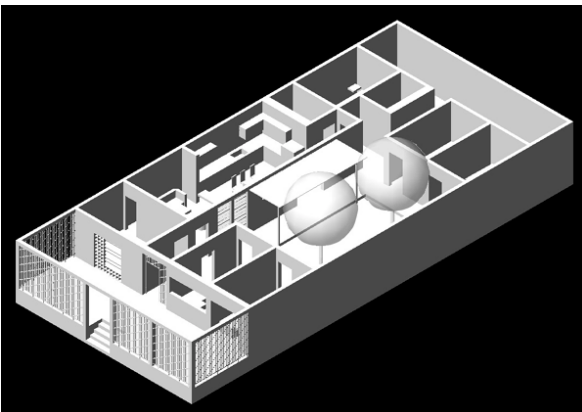
A “detachable space” could be added at the front. The outdoor circulation allows this addition to be inclusive to the existing house—new bedrooms for older children for example—or exclusive—a small store, a workshop, or a rentable unit.

7



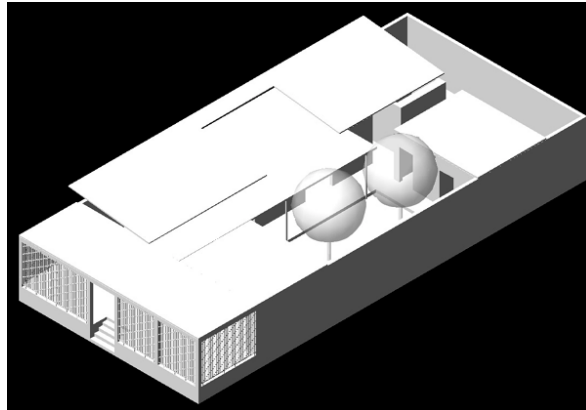
More space could be built along the rear perimeter of the site. This space is highly flexible. All bedrooms still have good natural lighting and good cross-ventilation from windows on two sides.

8



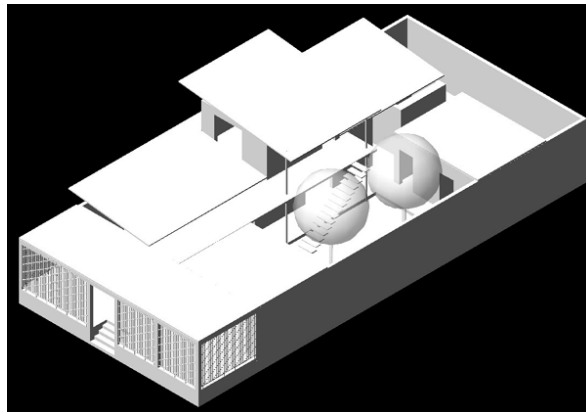
There is space for a front porch addition. This increasing the range of public, semi-public, and private spaces. There are many social possibilities within the sidewalk, front porch, courtyard and inner living room.

Roofs may be pitched inward to allow for water collection as part of a greywater system.



9

Finally, the stage is set for second floor expansion as needed.



10



Timothy Morshead is a level two student in the Master of Architecture degree program; he did his undergraduate studies at the University of Colorado.

The Reinforced Concrete Frame: Medium for Progressive Development

Michael Spinello

The fundamental principle of the progressive development model for low-income housing is that habitation is built piece by piece, as time and resources allow. This model has proven to be quite effective for the El Gallo Community (Image 1 and 2). Arguably, progressive development has allowed El Gallo, in its brief existence of thirty years, to evolve into a vital and wholly successful community. As families and resources grow, additions are made to existing structures to accommodate for the larger family. This model works particularly well in a Latin American context, as it is often the case that families tend to remain together in one household even after



image 1: El Gallo looking west



image 2: El Gallo street

children are married. Most of the case studies in El Gallo had taken advantage of the flexibility of the progressive development model by making additions to the houses to accommodate for their growing families. Indeed, while our group was there, many houses were in the process of renovation.

Another factor that has contributed to the success of the progressive development model in El Gallo is the construction method prevalent in Venezuela and other developing countries with similar climates and materials. This method utilizes either concrete slab on grade or raised slab as



image 3: concrete frame construction

a foundation upon which the building frame and walls are placed. A reinforced concrete frame is then infilled with mortared masonry units (Image 3). This construction method affords significant flexibility with regard to room layout and eventual reconfiguration. Often, the masonry units used



image 4

are bonded with a relatively weak mortar so that they can be easily dismantled and reassembled as needed.

The masonry units are typically either extruded terra cotta block or standard concrete masonry unit (“CMU”). Terra cotta block is cheaper and generally requires less skill to install. CMU is typically more expensive, requires a greater degree of skill to install and to face with stucco but is superior in terms of its durability and the quality of its stucco facing. The majority of houses observed in El Gallo utilize CMUs for infill. This is in contrast to similar structures in Caracas where terracotta block is typically used. Another significant factor is that, due to their sound insulating qualities, masonry units allow a degree of privacy that standard wood frame



image 5: cold joints in poured concrete

construction does not allow. Even in cultures that traditionally foster a vibrant public life, the need for privacy is becoming more and more relevant particularly in high-density areas.

The reinforced concrete frame is a particularly effective method of construction in a progressive development scenario because it can be relatively easily modified and added onto. Significantly, additional floors can be added to the concrete frame. Many of the houses observed at El Gallo were two and occasionally three stories and had rebar ties projecting from the existing concrete frame so that addition was always an option.

One significant drawback of the progressive development method is that the piecemeal approach to construction often results in inconsistent, structurally compromised construction (Images 5 and 6). This is especially relevant when considering the problem of “cold joints” in reinforced concrete frame construction. “Cold joints” result from pouring concrete onto concrete that is already cured so that a structurally discontinuous member is formed. This practice is potentially dangerous especially when additional levels are supported by poorly constructed members.

It is interesting to note how similar construction methods are used for a wide variety of buildings and applications. Often, the same reinforced concrete framing technique that is used



image 6: minimal concrete thickness



image 7: concrete frame construction



image 8: new squatter settlement, Ciudad Guayana

for home construction is also used for creating front walls, gates and arches. Even if it is functionally unnecessary to build such substantial walls and gates (Image 2), an aesthetic continuity is achieved. The high rise shown in Image 7 uses essentially the same construction techniques as many of the most modest squatter houses. In Venezuela, the progressive development approach to construction is a norm even for major civic projects. In a sense, the reinforced concrete frame, coupled with a “build as resources allow” approach to construction, represents the modern vernacular tradition of Venezuela and other developing nations.

The foreground of Image 8 shows a new squatter settlement in Ciudad Guyana with a large, presumably well-serviced housing building in the background. Images like this one are compelling reminders of the disparities that often exist between classes in many countries and highlight the need for the creation of quality housing and opportunities for



image 9: finished house, El Gallo

public interaction. The successes observed at El Gallo are indicative of the effectiveness of the progressive development approach to community building. Urban planning and methods of construction are reflections of the cultures from which they derive. What is fascinating about the situation at El Gallo is how a modern building technique has been appropriated and adapted to work integrally with a community development model to help form a vibrant and successful neighborhood. As with any community, it is ultimately the people who give it life and relevancy but it is encouraging to know that the choices of planning and design can positively impact the development of communities.



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Rivers, Dams, Electricity and El Gallo

Roxanne Figueroa

As a planning student within the Housing and Community Economic Development Program Group, I am particularly interested in energy policy and its role in economic development. I was especially curious about the role of energy in the Venezuelan community of El Gallo, given that all of my experience with energy policy falls within US borders. It is through this lens that my reflections of the ‘El Gallo experience’ are based.

Setting the Context for the Energy Situation in El Gallo

As an energy ‘powerhouse’ Venezuela stands out from the rest of its Latin American neighbors. According to the Energy Information Administration, “Venezuela has one of the highest electrification rates in Latin America at over 90%, and Venezuelans are the highest per capita users of electricity in Latin America.” (Energy Information Administration, April 2002, <http://www.eia.doe.gov/emeu/cabs/venez.html>.) The second largest dam in the world, the Guri Dam, is located in Venezuela and is precisely situated near Ciudad Guayana. The Guri Dam supplies the majority of electricity to Venezuela, and in 1999 it supplied 68% of Venezuela’s electricity. I wondered whether the community of El Gallo had been able to benefit from its close proximity to the Guri Dam.



The Guri Dam

Impressions of El Gallo

What immediately struck me about El Gallo is how much the physical state of the community differed from the images that had been emblazoned in my mind based on the initial assigned readings. Paved streets, multi-colored, two-story homes, and several businesses, all supported by an extensive energy grid, abound in the El Gallo of 2002. Gone were the simple barracas (shacks) and unpaved roads shown in photos of the area taken in the 1960s.

The types of homes in El Gallo varied from the basic structure laid out by the initial plans, to two-story homes complete with a garage. Conversations with residents in the community revealed the process of change that El Gallo had gone through. Some residents spoke of the major yet incremental transitions that their homes went through from simple barracas to two-story homes. This physical transformation of their homes reflects the gradual economic transformation these residents underwent throughout the years. Based on the different levels of development of homes in the area, El Gallo seemed to be composed of a mixture of low to moderate income families.

Energy and El Gallo

Venezuela's developed energy industry distinguishes it from other Latin American countries, who suffer from a lack of an adequate supply of energy. As a result, unlike other low-income communities in developing countries, access to electricity is not an issue for the residents of El Gallo and surrounding communities. Even a recently invaded squatter community in the outskirts of San Felix that we visited is connected to the electricity grid.



Power lines in a squatter settlement outside San Felix



Electricity supplies, El Gallo



Entrepreneurial activities proliferate throughout El Gallo as demonstrated by the presence of many small to large-scale business enterprises within the community. A readily-available and easily accessible energy supply helps to support these entrepreneurial activities. However, although access to electricity is not an issue, the sometimes rudimentary infrastructure and lack of adequate oversight and maintenance pose a challenge for El Gallo residents. During the community meeting, residents expressed serious concerns regarding the safety of the power lines or high wires strung along the skyline. They attributed the death of a woman from the community to a fire caused by fallen high wires.

Part of the reason contributing to the difficulty of maintaining the power lines has to do with the manner in which the homes have expanded. The initial plans for El



The light switch in one of the street medians demonstrates the rudimentary infrastructure and lack of oversight of energy systems in El Gallo.

Gallo included the construction of electricity poles and specified that all homes would have access to the electricity grid. However, as homes have expanded, the energy poles become enclosed within the resident's properties, making maintenance difficult or impossible for the energy company. The picture here shows a home that has not been expanded.



the energy pole seen here is still accessible for maintenance

Potential for Renewable Energy and Energy Conservation in El Gallo

While the majority of Venezuela's energy comes from renewable, hydroelectric (hydro) sources, non-hydro forms of renewable energy are virtually

non-existent in Venezuela. However, Ciudad Guayana and El Gallo in particular can benefit from the application of renewable, solar energy sources, as well as energy efficiency and conservation measures. While Venezuela has a plentiful supply of energy, billboards and television ads asking people to conserve energy were present in both Ciudad Guayana and Caracas. Renewables, particularly solar energy, can help mitigate the increased demand on the grid, and provide, environmentally-friendly, reliable alternative sources of energy. Since energy costs do not reflect the true costs of energy, residents and businesses expend energy as if it is an infinite resource. In addition to water, energy conservation efforts and measures are also important steps that should be promoted in El Gallo.

The Role of Corporacion Venezolana de Guayana (CVG) in El Gallo

As the Corporation managing the various resources in the Guayana region, including the Guri Dam, the Corporacion Venezolana de Guayana (CVG) played a vital role in the development of the region and played an important part in the development of El Gallo.

For example, CVG played an active role in the Community Center which served not only local residents, but also residents from other towns and communities. However, CVG appeared to be separating itself from these responsibilities and handing them over to the City.



CVG headquarters in Puerto Ordaz

Conclusion

Looking at the role of energy in the small community of El Gallo revealed the interesting and unique position that it and the rest of Venezuela are in with respect to energy. While many developing countries are concerned with creating an adequate energy supply to help spur macro and micro- economic development activities, Venezuela already has an established energy sector. This has helped at the local level, as can be seen by the economic development activities in El Gallo and the surrounding areas. However, at the local level, maintenance issues pose a challenge to further economic development activities.

In addition to the issue of energy, several questions arose from the cursory observations made during our stay in El Gallo such as whether El Gallo can be considered a success and whether it can be replicated elsewhere. As any other community, El Gallo is a work in progress. I believe that we revisited El Gallo at a point where the longer term results of this low-income housing experiment can begin to be gauged. El Gallo can be considered a success in that it appears to have provided a space for community members to transform their homes as well as their economic status. Yet El Gallo's success is tempered by its relationship to a larger whole, given that it is just one community in San Felix and Ciudad

Guayana. Many of the challenges confronting El Gallo are simply extensions of the challenges confronting the greater surrounding areas of San Felix and Ciudad Guayana such as the lack of potable water.

The unique circumstances surrounding El Gallo's development may limit the possibility of replication. First, El Gallo was a planned low-income community. However, unplanned, informal settlements characterize the majority of new low-income housing communities in Ciudad Guayana. Even most of the existing formal low-income housing settlements evolved from unauthorized invasions. Secondly, Ciudad Guayana has a unique relationship with CVG, which may not be easily replicable. However, El Gallo does provide several lessons which can be applied to other low-income communities.



Roxanne Figueroa is a first year student in the Master of City Planning degree program; she did her undergraduate studies at the University of California at Berkeley.

Information Technology in Venezuela: Some Impressions from Caracas and Ciudad Guayana on the Nature of Communications and the Integration of Computers

Christina Erickson

‘Leapfrogging’ development...IT (information technology) as a tool for the poor...distance learning... skill building for the new economy. These are just some of the ways in which information & communications technologies have been packaged as crucial new elements in our understanding of development. Is IT for development a genuine policy perspective or merely a rhetorical device to avoid the more challenging development questions? The MIT SIGUS trip in January 2002 offered an opportunity to test this question, by setting the question in a specific context.

In the next few pages, I will attempt to understand the relevance of IT for development in the Venezuelan context. To do this, I will detail my impressions and observations about the degree to which IT has permeated the lives and livelihoods of Venezuelans in two cities: Caracas & Ciudad Guayana. The former is the capital and major financial center. The latter is a planned industrial city, developed about 40 years ago to serve as a growth pole—developing heavy industries (as alternatives to the oil-dominated economy) and drawing the population away from Caracas. Not surprisingly, the presence of IT in these cities mapped very differently depending on the income level of the community within each city. I hope to highlight these disparities through offering quick glimpses into the visibility (as I experienced it) of computers and communications in these Venezuelan communities.

Case Study 1: Caracas

Altamira

In Caracas our group stayed in a hotel in Altamira, one of the wealthier districts. Around the corner from our hotel was an Internet café, and from the phone book, we saw that there were several similar cafes nearby. The café we visited was on the top floor of the ‘Yamin Family Entertainment Center’, sharing space with a video rental store, a McDonalds dessert bar, and an arcade. The clientele in the Internet café (which held around 30 computers and was packed at all hours) was primarily pre-teen boys. They were not there to check e-mail, search the Internet, or work on resumes. Rather, they all seemed to be competing in networked video games. The cost for using these computers was cheaper than I expected—at 300 bolivares (about 40 cents) for 30 minutes. Up the street from our hotel was a McDonalds . There were two computer terminals on the second floor of the restaurant. Access to the Internet was free for any patrons.

Slum upgrading project, Caracas

The prevalence of computer communication in the wealthy areas of Caracas does not come as much of a surprise. The interesting question is whether or not the 80% of the population living below the poverty line enjoy this access.

Yaneira Wilson, one of the Venezuelan architects who joined us, works full time with a small design firm contracted by the government to conduct slum upgrading projects in Caracas. Yaneira spent some time telling me about their use of computers on the project. Yaneira’s firm went into a hillside squatter community to relocate some dwellings that were living in unsafe areas, and they worked to install drainage systems and pathways that would resist storm damage and landslides. As a way to interface with the community, Yaneira’s firm brought a computer onto the site. Every member of the community (~100 people) was given a password and username to gain access to the computer. They could use the computer to, among other things, send e-mail, search the Internet, or use software applications. Yaneira could also use the computer to show design visuals to the community members.

We often hear about the potential of IT to help or empower low-income communities. This was an interesting example of the government actively promoting computer literacy in slums through placing a computer directly in the community. Whether or not such a project can sustain itself after Yaneira's firm leaves remains to be seen.

Case Study 2: Ciudad Guayana

Puerto Ordaz

After a few days in Caracas, we travelled to Ciudad Guayana. The reading I had done prior to the trip prepared me for a city with grossly divergent experiences—the planned v. unplanned city. Ciudad Guayana is comprised of two distinct cities—Puerto Ordaz (the planned city) and San Felix (the unplanned city). Puerto Ordaz hosts the modern office buildings, the quiet suburbs with American-style, single-family homes, and the well-maintained streets and public spaces. San Felix is much more densely populated, and looks much more like a typical Latin city—complete with decorated buses, many more pedestrians, small stores and merchants lining the streets, and occasional shanties mixed in with more established neighborhoods.

Our hotel was located in a neighborhood just outside the downtown area of Puerto Ordaz. There were two Internet cafes just down the road from our hotel. They were both in small storefronts of a strip mall. Each had about 20 computer terminals. The cost per hour was about 350 bolivares per half hour (50 cents).

Who used these cafes? The users were local people, and ranged from young people (again playing games, listening to music, surfing the internet) to couples (spending Friday evenings together in front of the computer) to adults (using word processing applications for what appeared to be job-related matters). One evening, I encountered an entire family—a father and his three kids—crowded around two computers, in what seemed to be the night's activity.

Both cafes also sold cellular phones and accessories. I did not find out whether the owners of these cafes solicited the cell phone companies or vice versa. On the one hand, the Internet café's clientele is an obvious target population for the cell companies. On

the other hand, the café owners may have needed to sell the phones and accessories to supplement revenue.

I observed one other Internet café in the downtown mall. This was a different type of enterprise. Rather than also selling cellular communications, this café functioned first as a café, and second as an Internet outlet. There were pastries, sandwiches, and coffee downstairs. Upstairs there were about eight computer terminals—all with Internet access.

San Felix (El Gallo)

The bulk of our work centered on a small (~4000 people) residential community in San Felix. Many of the original families were still living in El Gallo, in now much larger and well-developed homes. Their personal successes are a tribute to the success of this progressive development effort. However, we could only cautiously applaud the program—a more genuine endorsement was not possible without better data on the percentage of families in El Gallo that had been there (or moved to an even better neighborhood) for the duration.

El Gallo was one of the nicer neighborhoods we witnessed in San Felix. Presuming El Gallo's residents earned higher incomes than the average residents in San Felix, it seems fair to assume that their skill base and earning potential might be higher than the average in San Felix. Given all of this, I expected residents in El Gallo to have more familiarity with computers. In fact, from the admittedly limited number of households we visited, only one had a computer. That one was located in the home of a printer—who designed t-shirts for our group. He needed the computer for software like Photoshop. More importantly, he was using the computer for small-scale self-enterprise.

This experience of self-employment in small-scale (usually low-tech) enterprises was repeated throughout El Gallo. (Elsewhere in this report, students measure the incidence and type of these enterprises.) In general, they involved activities like running a small convenience store, hair salon, or car repair, out of their homes or garages. One family owned two large vans that they used as public taxis/buses.

In these scenarios, there is not much room for computers. For one, computers are still expensive, even for these relatively well-off residents. Second, given the typical

forms of employment, computers were not necessary. And third, (an assumption), there was likely little knowledge or familiarity with computers. This last point can only be made on the strength of my informal conversations with people, and the fact that the community center in El Gallo had only one computer—that had only a small number of users.

A few days into our trip, I met a young woman working in El Gallo. She was 19 years old, and worked in the convenience store down the street. I asked whether she used a computer at work or home. No, she told me. I asked whether she had ever used a computer. She had not. Finally, I asked whether she knew anyone who had a computer. She shook her head at first, but later remembered that her aunt's friend had a computer. She knew nothing about it though. Anxious to prove her technological savvy, she quickly pulled out a cell phone. She proudly showed me all of the numbers she had programmed. She asked what my phone number was, and insisted that she would call me. Obviously, e-mail would have been a much better option for us to keep in contact. My limited Spanish and the cost of a phone call from Venezuela to the United States were two major deterrents a phone conversation. The interesting point, though, was that she had a cell phone, and that it appeared to be more of a status symbol than anything else.

There were two final visible incidences of computer communications in El Gallo. The first was spotted with a small, roadside merchant. He was selling Internet access on the sidewalk in El Gallo. The second was a more formal store, which sold computer, printing, faxing and reproduction services. The former was vacant every time we passed by, so it was difficult to get a sense of how much business they conducted.

Cell phones, unlike computers, were easy to spot in the community. It can be argued that this technology and form of communication is a much better match for El Gallo. It is cheap technology and fairly simple to operate. However, there is a value in promoting computers—even in areas where they seem prohibitively expensive. This value goes beyond opening lines of communication with people you normally would not interact with. Basic computer literacy can lead to higher paying jobs. This is important both for helping people find existing jobs, but is also important on more of a macro level for attracting higher wage jobs to the city and to the region.

The CVG Community Center in El Gallo

Do people in El Gallo share this sentiment? If we assume that the community center is a reflection of the community itself, then no—computers were largely ignored. The community center, it should be noted, was not run with money from the members of the community, but by the CVG, the regional development authority. The community center, and by extension the CVG, offered a number of job-related courses during the evenings. These listings did not include any sort of high-tech computer or typing class. Rather, there were courses on sewing, construction, etc. The center does plan to get one new computer—which it will place in the library. This is a step in the right direction. But with all the money CVG invests in this community center (which serves not just El Gallo but surrounding areas as well), it seems problematic that some of that money is not being used for purchasing computer equipment.

Conclusion

In Venezuela, the likelihood of computers becoming a part of daily life seems unlikely—at least in the near future. The Chavez government has been heavily biased towards the poor. Though his government has promoted the use of computers by firms like Yaneira's in slum-upgrading projects, this will probably not be replicated in a large proportion of Venezuela's poor communities (if for no other reason than a lack of resources—these slum-upgrading projects are few and far between). Additionally, only 4% of the population currently uses computers. While any change in usage will bring high marginal gains, it will take an enormous effort to bring a more substantial number of people online.

Four years ago, I began studying the impact of information technology on poverty alleviation and economic development. My visit to Venezuela gave me brief glimpses into incidences of IT promoting both of these aims. However, and not out of line with my research in South Africa, these incidences are terribly infrequent. The probability that IT will help countries like Venezuela 'leapfrog' development is low. However, information technology should not be dismissed. It's ability to transmit information, attract higher wages, and communicate in new ways render it critical to economic

development efforts, even in regions like Ciudad Guayana, where heavy industry and natural resources continue to dominate the economy.

Who knows? Maybe in 10 years, we will return to Venezuela to find computer ownership as common as cell phone ownership. Whether or not this happens will likely ride on both policy and education, and perhaps a bit of pop culture.



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El Gallo Entre Los Ojos Del Niños

Meg Hiesinger

As an anthropology student participating in a field workshop with a group of architecture and urban planning students, I was not sure of what might come out of the project – for myself, the group, or the community. Our purpose in being there, besides introducing students to the realities of professional fieldwork abroad, was twofold: a) to explore what design professionals can contribute in a place where people largely build their own housing and b) to rethink incremental development as it has been largely practiced in developing countries – a method that has fallen out of favor with funding institutions such as Venezuelan banks.

The primary lesson in applying these practical questions to real life was how immediately these principle questions spawned countless qualitative ethnical and theoretical issues. From the vantage point of a neighbor’s porch or the street median in El Gallo, the words “incremental development” quickly crumbled into their constituent issues, like - “What is success? Happy people? Well-built houses?”, or even “Why bother with these kind of houses at all?” In a region where invasions by non-landowning squatters represent the norm in low-income housing development “strategy,” studying planned housing communities like El Gallo can not only provide a model for possible solutions, but can also help define the situation and pose examples of opportunities for improvement.



neighbors

One of the most significant aspects of El Gallo was that we possessed the original plans and maps, early theoretical studies and reflections on what El Gallo was intended to be from the eyes of the planners. By returning to the community, we were able to see how the people who actually lived in El Gallo had shaped it themselves. This situation provided an ideal comparative framework from which to think about whether the El Gallo of 2002 lived up to, exceeded, or failed the expectations of the planners and residents; or whether it differed at all from surrounding unplanned areas.

In order to address these questions from the inside, we had to figure out ways of gathering information in the community. From a professional standpoint we could observe and interpret changes on our own. Yet, this would naturally provide an incomplete picture of life in El Gallo. As an anthropology student, I began to focus on another part of the equation – listening and interviewing community members. I explored various techniques of gathering information from the residents of El Gallo. Eventually, I began to focus on the capacity of children to act as linguistic and cultural translators, guides, and informants.

The idea of viewing a neighborhood through children’s eyes is certainly not a new one; anthropologists and others have used children’s’ artwork, songs, and games as resources for understanding certain phenomena from their perspective. Nor is using children’s drawings a new technique for architects - Zein El-Abdin Fouad used childrens’ drawings in his study of housing in Egypt, “Shibam in the Eyes of its Children” - part of the Yemeni-German Shibam Urban Development Project. However, using



childrens’ eyes

children’s artwork in combination with various other modes of childrens’ expression has not been deeply explored for its potential. I will briefly highlight five ways in which children can act as valuable informants and resources for information about their

communities. First, however, it might be helpful to explain why children might in some cases be better sources of certain kinds of information than others.

Children are often less biased or have different kinds of biases than adults. They often also have different kinds of fears, concerns, and priorities than adults. Although it seems quite obvious, children often watch their parents and elders carry out daily tasks in which they themselves do not yet participate. In a sense, they can sometimes act as a researcher's extension, providing their own fresh description and analysis of what may seem like mundane or unimportant actions to the adults

around them. For these reasons, a child's perspective might be an essential resource for someone wanting to learn about the nature or composition of communities.



hanging out



moving about

When we first arrived at El Gallo, some of our most immediate concerns were centered around how the community would receive us and how we would find people willing to talk to us. On our first day, however, there were already three eager community members waiting for us as we stepped out of the community center – David, age 11; Dailyn, age 9; and Yeliana, age 9. This is one of the best parts of incorporating children into the research – they are almost always the most curious and eager to meet newcomers. In other projects I have participated in, there have always been children around. Instead of regarding them as cute distractions from the “real” participants of the study, we see through the example of our workshop in El Gallo that there is much to learn from them as well.

In El Gallo, I tried several different kinds of information gathering from the children. It was my first time using any of these techniques besides interviewing. Each mode seemed particularly suited for obtaining slightly different kinds of information. This is why from my experience, it is best to use a combination of several different data collection methods as opposed to relying upon a single one. The five modes of working with children that I tried, aside from straightforward interviewing are: 1) Walking around the neighborhood and asking them to tell you about it, 2) having them mark up an aerial or other kind of map, 3) interviewing them (slightly different kinds of questions than one might ask an adult), 4) having them draw picture of their neighborhood, and 5) having them photograph and explain their photos of the neighborhood. I will explain the advantages and disadvantages of each method.

Although my Spanish was crippled at best, I asked them their names, explained that we were students here to learn about their community, and asked them if they would like to show us their neighborhood. We slowly walked along the streets. Part of our tour doubled as a language lesson. I pointed at insects, trees, and aspects of houses, asking for their names in Spanish in exchange for the English word. We stopped at small stands and houses where refreshments were sold. In some cases the proprietors knew the children and seemed to become more at ease chatting with us.

Once we began to feel more comfortable with each other (in other words - had “established rapport”), I began to ask the children different kinds of questions about their surroundings. I pointed to a soccer field and asked David what it was. He



the matriach

answered that it was the school soccer court. I asked him to tell me about it. He then pointed at a hole in the fence and explained that that was where the older kids had torn down the fence because they didn't have a soccer field of their own. This meant that the

older kids eventually pushed the younger children out of their soccer court when school was not in session. We were beginning to learn bit by bit about life in the community.

After our tours, the children followed us back to our classroom in the community center hoping to join us somehow in our further work. The trappings of architects and urban planners were hung across the walls in the form of blown-up aerial photographs



friends

and maps of El Gallo. I was not sure what the kids could do while we were working with our “professional” tools and types of information. It occurred to me that these photographs and housing plans were our own representations of El Gallo and that it might be interesting to see how the kids reacted to these depictions of the place in which they lived. I took

one of the aerial photographs down and asked them if they could find their house on it. There was a bit of discussion between them as they located the shapes of well-known landmarks such as the baseball field and the community center. They quickly found their homes. Then I began pointing to houses along their block and around the map asking them who lived there. We marked the names on stickers and placed them on top of the houses. Then I asked them who was related to whom in and among the houses. The children knew a surprising amount about who lived where and what their relationships to each other were. Through this exercise, I learned that there seemed to be a matriarchal ownership system in which older women owned the houses where they and their descendants lived. The spatial layout of residents the children could identify suggested that the street block was a strong social unit, but the farther out one moved, even onto the next block, the knowledge of who lived there greatly decreased. One interesting case showed how the children could even help answer some of our more technical questions – such as what people did with the odd shaped lots that had been part of the original housing

plan. Through our map exercise, the children showed me where one older woman whose husband had died bought half of another widow's large irregularly shaped lot and built another house there; so the two women shared the lot.

I also interviewed the children informally during our conversations. Some of these interviews emphasized the different perspective that children bring with them. This is something I had to keep reminding myself about in order to fully learn from what they had to offer. Sometimes it took the re-phrasing of a particular question to reveal the information that the children possessed. For example, as we walked along the streets naming the Spanish names of the trees in people's yards, I became aware that almost every yard contained a different kind of edible produce – limes, mangoes, avocados, oranges, and some that had no English translations.

I began to wonder if there might be some kind of fruit exchange between houses, by which neighbors supplemented their groceries with the produce in each other's yards. So

I asked two of the children "What kind of tree do your neighbors have?" They answered "Orange." I asked them if their neighbors ever gave them any of their oranges. They looked kind of puzzled that I would ask such a thing and then said "No. Never." Then I asked them if their neighbor's mother ever gave their mother oranges. Then they looked relieved and answered "Yes,



generations

sometimes." I realized that in order to understand how much the children really could tell us, it was also sometimes necessary to think about the world through their eyes. To them, their neighbors were the children next door, not the adults who picked the fruit from the trees.

Finally, we had the children create for us their own representations of El Gallo. This included giving them a camera for a day and a night (unsupervised) with the instructions

that they should take pictures of things that they liked about their neighborhood and that they disliked about it. We then developed the pictures and had them explain what they had taken pictures of. The photos were often accompanied by rich, multilayered stories that created experiential maps of the community. Although our group had guessed from our own observation and interviews with adults that caring for common space was a problem, we learned from the children just how symbolic some of these spaces were. For example, according to the children, the park at the base of the mountain Avila was a place of pride due to its historic background. They also told us something that none of the adults did, which was that because it was unlit and unsupervised it was a dangerous place that children were warned against visiting alone. Another advantage of asking children about the community is that unlike adults, they are not as worried about portraying a negative image of their community to visitors. They were more willing to



children's photo of park at base of Mount Avila



children's photo of garbage on a main road in El Gallo

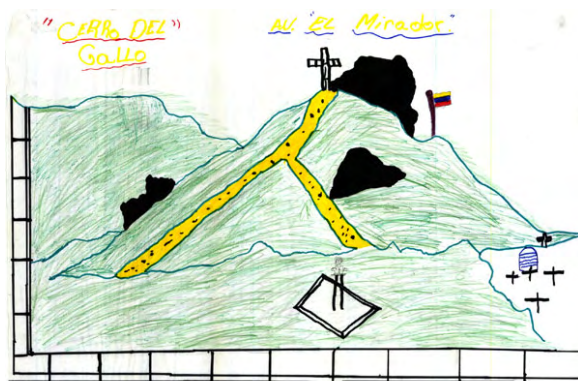


children's photo of friends with poor drainage in El Gallo

describe the unsavory aspects of their neighborhood that adults were.

In addition to having the children take photos, I asked them if they would like to make some drawings of their neighborhoods, and again, of what they liked and what they did not like about living there. The drawings, unlike the photographs, did not contain anything that the children did not like. There was also an element of fantasy present in the drawings that they were not able to express through the medium of photography. Things that they liked, such as the gardens and vegetation were larger than life and stuck in places where they did not exist in reality – such as banana and coconut trees planted in road medians where there were some trees and gardens did exist, but not in the lushness that the children depicted. The colorful facades of houses and candy cane striping around the median became larger than life and

children's drawings, El Gallo



Armel DAVID

Caracol

La Calle



Andres



occupied the focus of their pictures, as the children showed us what gave their neighborhood its identity.

This drawing project is something I would like to continue should I return to the community. What began to emerge out of these drawings and photographs was not only a picture of what these communities were, but also what they could and should be. These kinds of desires and hopes are the kinds of information that might be useful for a planner or architect who is considering designing a new community or re-shaping a pre-existing one. Knowing about how open spaces can be simultaneously beautiful and dangerous without the proper community social structures in place to care for them, about the community's love of color and plants, about the trash problem in the traffic medians, can greatly inform the work of those who are trying to make improvements in the community. Through this essay, I hope that the accompanying pictures not only appear cute, but that they highlight the fact that the information children have about their communities is a valuable resource for people studying them.



Meg Hiesinger is in her first year of a PhD in the department of Science, Technology and Society; she did her undergraduate studies at the University of California at Berkeley.

appendix

The Workshop Program

The Workshop Teams

Three teams carried out the field work:

Grupo VERDE (Green)

Cesar Badaracco
William Doss Suter
Christina Erickson
Roxanne Figueroa
Carolina Izquier



Grupo AZUL (Blue)

Giovannina Castillo
Marisa Gaithier
Tim Morshead
Carlos Rengifo
Michael Spinello
Yaneira Wilson



Grupo ROJO (Red)

Eleanor Fawcett
Carolgi Gonzalez
Meg Hiesinger
Michael Mendez
Rigoberto Nobriega
Miguel Urdaneta



A fourth team was comprised of students from the community, and focused on documentation through drawings:

Grupo AMARILLO (Yellow)

- Andr s
- Angel
- Carolina
- David
- Daylin
- Moises
- Yeliana
- Yuletxi



SIGUS – Special Interest Group in Urban Settlement – offers an umbrella for research support, workshops, and courses focused on low income communities, stressing participatory method in promoting affordable and equitable housing. A key goal is to explore and define the new professionalism emerging from the challenges of today and tomorrow. Established in 1984, SIGUS grew out of the rethinking of method, practice, and teaching in the housing field driven by the concerns of the rapidly expanding informal sector in developing countries.

SIGUS is directed by Dr.-Ing. Reinhard Goethert, assisted by graduate assistants from the Department of Architecture and Urban Studies. In its activities it draws on faculty from throughout MIT and from national and international agencies in exploring the new professionalism.