SIGUS can do:

VILLAGE PLANNING

- √ RAPID
- √ PARTICIPATORY
- √ COMMUNITY–BASED
- √ CHILDREN INCLUSIVE

San Cayetano
Resettlement,
El Salvador

A 4-step process
including site reconnaissance, alternative design studies, analysis,
service and facilities location,
and 'next steps' programming.

From model studies to AutoCAD drawing in 2 1/2 days.
With children as active partners!

And the architect as partner and guide.

Taller -Diseñando una Nueva Comunidad

Un Taller de SIGUS-MIT
en Asocio con las Familias
de San Cayetano Istepeque
y las ONGs Bálsamo y REDES

San Cayetano Istepeque
El Salvador, Junio 2004

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Fase 1 – INICIANDO
- Introducción
- Familiarizándose con el Sitio

■ Introducción
- Que todos y todas se conozcan
- Clarificación de roles - quién hace qué
- Explicación del programa
- Cada familia prepara su formulario con fotografía, información básica y reflexiones sobre la nueva comunidad. Esto determina la capacidad de grupo.
- División en grupos de trabajo
- Los grupos determinan los criterios claves a tener en cuenta en el diseño de la nueva comunidad
- Los niños también se organizan en un grupo

■ Familiarizándose con el sitio
- Identificación de linderos, estructuras construídas, árboles valiosos, vías existentes
- Orientación a familias sobre el 'qué se vé y cómo el plano lo muestra,' relacionando el plano con lo que aparece en la realidad

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Fase 2 – DISEÑANDO CON LA COMUNIDAD

■ Preparación: Entendiendo los elementos básicos: lotes, calles, espacios abiertos.

- Lotes: tamaño (10x15 metros son la proporción y tamaño estándares propuestos inicialmente)
- Calles: grandes y pequeñas, de 6 y 9 metros de anchura respectivamente siguiendo los estándares locales.
- Espacios abiertos, espacios verdes, futuro espacio para enfermería, etc.

■ Fabricando los Componentes del Modelo

- Se cortan 45 'lotes' de papel, uno por cada familia
- Se prepara la plantilla para el área verde
- Niños y niñas recolectan las piedras para representar las casas

■ Diseño: Explorando Alternativas de Lotificación

- Estudio de cuatro alternativas estándar para lotes, calles y áreas verdes como punto de partida:
  - bloques verticales
  - bloques horizontales
  - agrupamiento alrededor del espacio central
  - agrupamiento en sub-bloques
- Ubicación de lotes, calles, edificaciones y espacios verdes. Las casas son representadas por piedras para generar el efecto de tercera dimensión

■ Análisis: Midiendo y Comparando lo que se Tiene

- Se cuenta el número de lotes. Se divide este número entre el área. A mayor el número, mayor cantidad de familias que pueden ser alojadas en el lote.
- Se mide la longitud total de calle. Se divide entre el área. Mientras mayor sea el resultado, mayor será el costo de construcción

■ Servicios: Preparando el Esquema de Distribución de Agua

- Se ubican el tanque alto y las cantareras
- Se mide la longitud total de la tubería. Se divide esta entre el área de la lotificación (m/ha). A más alto el resultado, mayor será el costo.
- Se cuenta el número de cantareras. Se divide entre el área de la lotificación. Mientras más alto el resultado, más alto el costo, pero menor la distancia a caminar para conseguir el agua.

■ Reflexión: Considerando los Más y los Menos de las Alternativas

- Prioritización
- Uso de cuadro para las consideraciones del grupo

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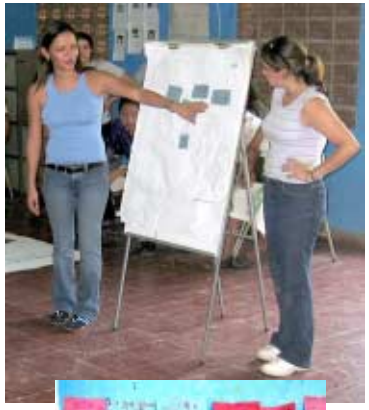
■ Facilidades: Areas para Actividades Infantiles

- Se ubican los lugares ideales para juegos infantiles
- Se ubican los lugares ideales de encuentro para la comunidad
- Se ubican las áreas ideales para tener animales



Estas actividades, claves desde el punto de vista del grupo de niños y niñas, se ubican así también dentro del plano de la nueva comunidad.

Fase 3 – IMPULSANDO LA COMUNIDAD

■ Formando comités

- Las familias se inscriben de acuerdo con sus intereses
- Los comités incluyen: vivienda, provisión de agua, vías y administración de deshechos
- Cada comité elige su coordinador/a y secretario/a

■ Planeando pasos a seguir

- Cada comité decide la fecha de su próxima reunión, el sitio y los temas a discutir en la reunión.

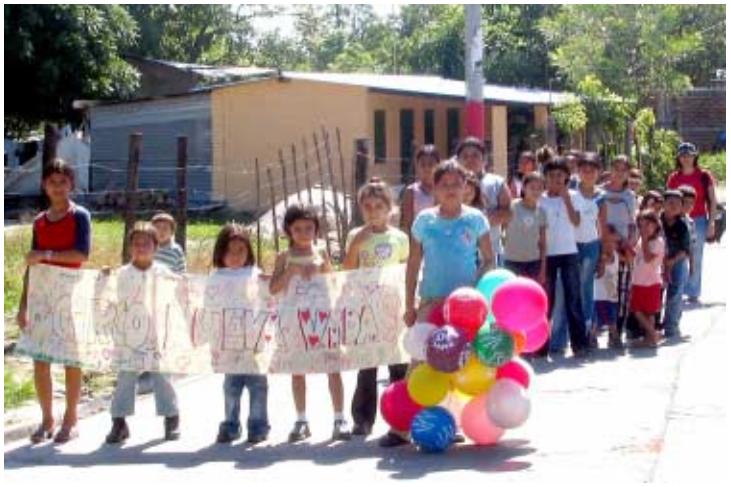
Inscribiéndose en los comités!

Fase 4 – CLAUSURANDO EL TALLER

(El Trasteo Vendrá Pronto?)

■ Presentando el punto de vista de niños y niñas

- Se resalta lo que preocupa a ojos de niños y niñas
- Todo un 'circo' de situaciones!



■ Reconociendo los esfuerzos

- Entrega de camisetas diseñadas por niños y niñas a modo de 'certificados.'

Da tristeza terminar...

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The Workshop in San Cayetano, El Salvador

The SIGUS Group at MIT partnered with 45 earthquake-displaced families in designing their resettlement community through a rapid action-planning process. Both adults and children were participants: there were two parallel workshops with several joint sessions to exchange ideas. The workshop was held over a period of three days at the local community center, with approximately 38 families and their 68 children, led by SIGUS, an NGO team of 5 staff, and assisted by local university students.

The workshop goal was to design a new community plan that located the main components to allow immediate implementation. The outcome was a subdivision plan with definition of the properties (the individual lots); the alignment, expected use and surfacing of the road; location of public space; and location of public water standposts, water tower and pipe retriculation. Houses were to be built through self-help with assistance by various international NGO funders. Community task-teams were identified during the workshop to monitor the implementation of the project, with December 2004 as the completion target.

House design and construction were not explored. The community planned to follow the experience from previous reconstruction projects.

Deliberately crude materials were used in the design exercises to allow uninhibited experimentation. Simple cardboard paper roofs with rocks were used as houses (the rocks were gathered by the children, following a size template), colored cardboard was cut out for properties, and colored string was used for the water pipes. A large printed map of the site was taped to the floor of the community center and provided the working base.

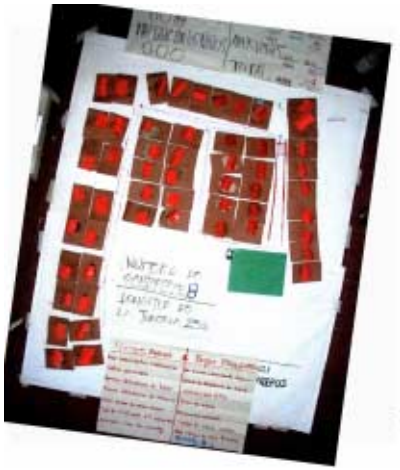
The workshop followed a 4-stage process:

• Stage 1 focused on understanding the site, relating the real site to a plan on paper, and forming teams to explore different alternatives. Most of the activities took place on the site, with both adults and children.

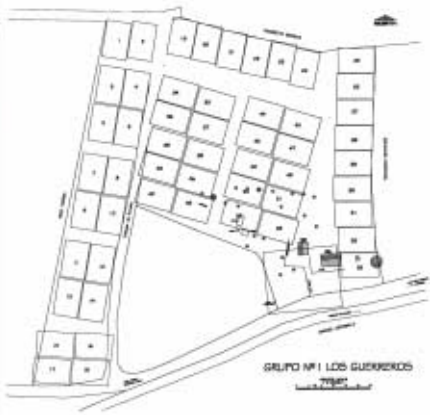
• Stage 2 explored design alternatives, using model pieces crudely made out of paper and stones. Each of the elements was discussed with the community to understand their function, characteristics, and alternatives, and criteria for decisions.

Four groups were formed, with each exploring an alternative site layout.

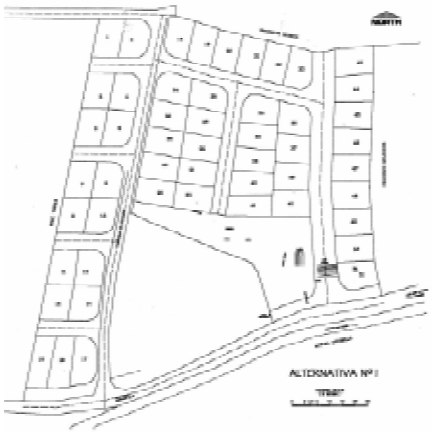
After an initial layout was prepared, they were compared considering the number of lots in their design, the cost-critical length of streets, land-use percentages, and density. Priorities and tradeoffs were assessed in reviewing the alternatives. Finally, public water standpipes were located and a rudimentary piped water network was designed together with an elevated storage tank. Advantageous and disadvantages were then summarized on a chart by each team of their respective layout.



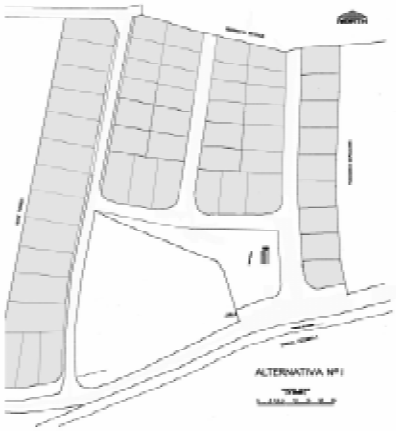
Selected Model



Digitized AutCAD plan



Plan adjusted to meet codes.



Final optimized layout.

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Each group then presented their project with advantages and disadvantages, the street length indeces (i.e. cost surrogates), number of lots (all had more than needed), number of water points and walking distance. At that point it became clear which alternative was the best choice and there was no further discussion on the layout alternatives.

Note that the groups were cautioned not to become personally involved in their design, and to consider themselves as reviewers. They were not to understand their alternative as a reflection of their skills.

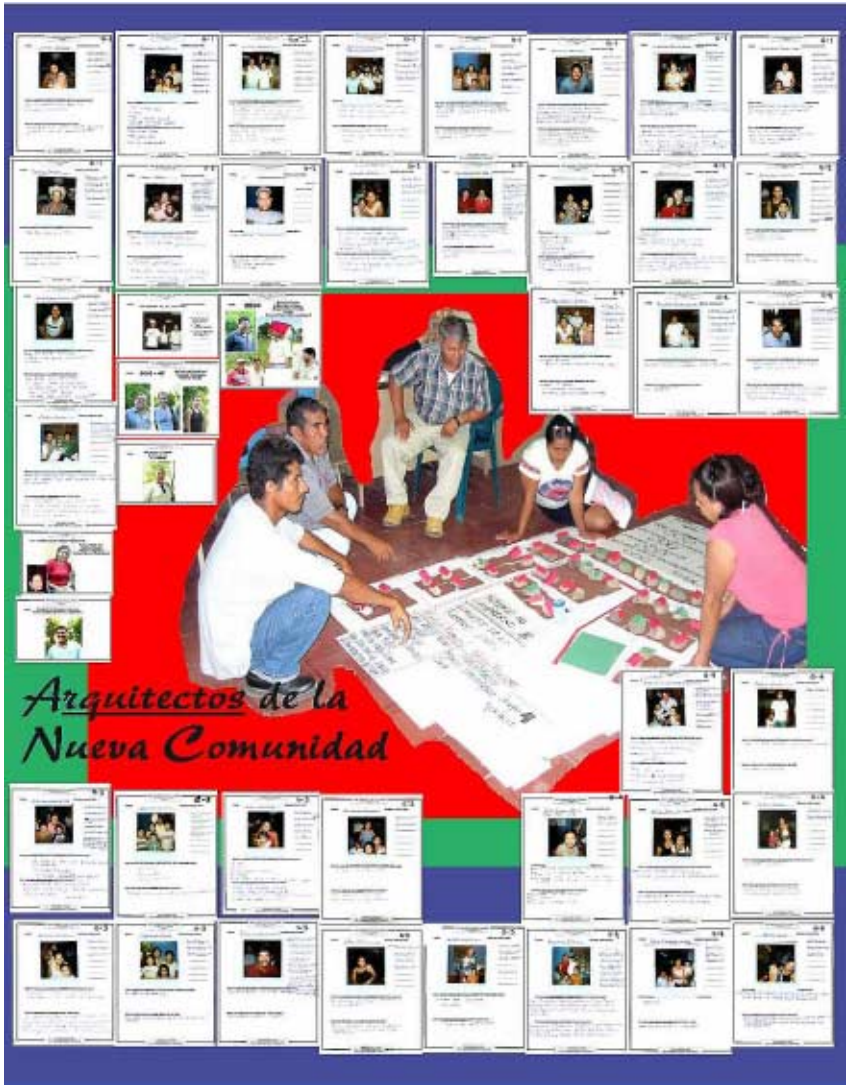
• Stage 3 focused on committees to shepherd the various components during implementation. The community determined which committees to be formed, and families selected the one in which to participate. Each committee then selected a coordinator and secretary, agreed on immediate 'next steps' , and defined the long term goals and agenda.

• Stage 4 was the closing of the workshop with the whole community, which formalized through celebration the new community design, and signaled the beginning of the process of implementation.

Adults took the lead in the layout development, but a parallel workshop was held with children. The children added different perspectives and critiqued the alternatives being considered.

The resulting layout was applauded by the community members as well as technical staff from the supporting NGOs. From a technical and economic perspective, it was very cost-effective in terms of the infrastructure and land use,. The layout offered a strong focus for the new community around a central node encouraging and reinforcing a sense of community identity.

A formal, professionally drawn plan was produced by the NGO during the evening of the last day for immediate review. The model of paper and rocks was digitally photographed and directly converted into an AutoCAD file. The file plan was then readjusted to meet codes and the final layout was produced after a last final adjustment to lower street lengths and resultant infrastructure costs.



38 families and 68 children!

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This example highlights a workshop in El Salvador, which planned the resettlement of an earthquake destroyed community in the town of San Cayetano Istepeque.

Two local NGOs in El Salvador partnered with SIGUS in the workshop: Balsamo and REDES. Balsamo staff included Emilia Taboada and Rosy Hernriquez; REDES staff included Rafael Garay, Edgardo Lezama, Douglas Guardado, and Jamie. Students from the Universidad de El Salvador included Aldomario Estrada, Yeni Landaverde and José Antonio Cardona. Students from Universidad Albert Einstein included Liliane Reyes, Tania Marquina, Sandy Melendez and Carmen Elena Rodeiguez. Funding was partly by the Irish NGO Trocaire and the MIT Service Learning Program, with matching funds from the local NGOs.

SIGUS staff included Gabriel Arboleda, Melody Tulier, Susana Williams and Reinhard Goethert.

SIGUS
links housing and community interests
in the
Departments of Architecture and Urban Studies.
It explores the new professionalism emerging
for architects and planners focused on
service, participation, and non-traditional client groups.
It offers workshops, short courses,
and carries out research and outreach programs
stressing participatory methods
in promoting affordable and equitable housing.
The program is directed by Reinhard Goethert
with the support of students and staff
from throughout the MIT community.
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