Architecture for Humanity | 2004-2005

About Architecture for Humanity

Architecture for Humanity is a 501(c)(3) charitable organization founded in 1999 to promote architectural and design solutions to global, social and humanitarian crises. Through design build programs, partnerships with community development groups, workshops, educational forums, and other activities, Architecture for Humanity creates opportunities for architects and designers from around the world to help communities in need. We believe that where resources and expertise are scarce, innovative, sustainable and collaborative design can make a difference.

We have consulted with government bodies and relief organizations on a number of projects, including mine clearance programs and playground building in the Balkans; earthquake recovery assistance in Turkey and Iran; school building in Calcutta, and field testing transitional shelters in Grenada. The organization is currently supporting and funding reconstruction work in the Gulf Coast region of the United States following Hurricane Katrina as well as in India and Sri Lanka after the devastating Indian Ocean Tsunami of December 2004.

In addition to facilitating and implementing design/build initiatives, Architecture for Humanity fosters public appreciation for the many ways that architecture and design can improve lives. Past initiatives include: The publication of Design Like You Give a Damn: Architectural Reponses to Humanitarian Crises as well as three international design competitions: Siyathemba: A Youth Sports and HIV/AIDS Outreach Facility in South Africa (2004-2005); Outreach: Design Ideas for Mobile Health Clinic to Combat HIV/AIDS in Sub-Saharan Africa (2001-2004) and Transitional Housing for Kosovo's Returning Refugees (1999-2000).

At the university level, architecture and design programs around the world have used our programs as a model for semester-long projects. Elementary and high school students have also benefited from our design initiatives through after-school workshops. Architecture for Humanity's design programs have been the subject of exhibitions at the Museum of Modern Art in New York, the London Design Museum, the Danish Design Center in Copenhagen, the Venice Biennale, the Pompidou Center in Paris, and many other museums and galleries throughout the world.

Connectivity:
Architecture for Humanity is a grassroots network of architects and designers willing to volunteer their time and their talents to communities in need.

Creativity:
Through competitions, exhibitions and other activities, we encourage architects to get involved, foster innovation and bring attention to the role design can play in improving lives.

Pragmatism:
By providing much needed funding and expertise, we support the work of architects in providing shelter after disaster and to communities in need

IPULI CENTER OF EXCELLENCE

Location: Ipuli, Tanzania
Date: October 2005 - January 2007
End client: Villagers of Ipuli, Tanzania
Design Team: Gilliland.Tolila Architecture, Paris, France
Engineering Consultants: Hayley & Aldrich
Project Partner: African Regional Youth Initiative and
the Millenium Community Foundation
Funding: Heller Communications, Pop!Tech,
National Geographic and Hayley and Aldrich
Area: approx. 4,456 sq. ft.
Website: www.motherchildmedical.org

DESIGN CHALLENGE: Tanzania, located in Eastern Africa bordering Kenya, Mozambique and the Indian Ocean, is home to 36 million people with close to 85% living in rural areas. The country has one of the highest infant mortality rates in the world (109 in 1000 births) and life expectancy stands at 44 years. The village of Ipuli is located in the region of Singida, which has a population of 950,000. Located in the heart of the country the village has rich earth, an unworkable school, and no doctor. Tanzania has only one physician for every 20,511 people and Ipuli's women in labor travelled 60 kilometers through rough terrain to reach the nearest clinic. As a result many died. The community needed a medical center to serve the entire population of Ipuli while focusing on the health needs of women of reproductive age and children under the age of five.

PROCESS: In October 2005 Neema Mgana, founder of the African Regional Youth Initiative, attended the Pop!Tech conference in Camden, Maine as part of a deligation on UN fellows. She had begun work to address the need for medical care in Ipuli. After viewing a presentation on Architecture for Humanity she asked if the organiation could support the development and construction of the project. During initial discussions she noted the work of Nicholas Gilliland and Gaston Tolila, finalists of the 2002 Mobile HIV/AIDS health clinic competition, and as a result we connected the team to the project. After initial funding was then secured the local community donated ten acres of land. Architecture for Humanity provided funding and support for the design of the facility and plans began for a medical center. For the design team, the challenge lay in bringing advanced technology and sustainable design to a rural area of Tanzania using local labor as much as possible.

During March - July 2006 all the stakeholders participated in a series of design workshops held on site. After further research, the team extended the scope of the prjoect to include the provision of general medical services, including dental care, a pharmacy, and ophthalmologic and laboratory services for the diagnosis and treatment of the area's most common illnesses and diseases. As medical staff is in such high demand in the country, especially in rural communities, a medical training center was integrated into this center. The village also requested a primary school for children in the community. Environmental engineering consultants, Hayley & Aldrich, devised a plan in intergrate solar and wind technology into the complex.

SOLUTION: In July 2006 the center began construction. It is scheduled to open in January 2007. The center, which will include tele-medicine to extend its reach, will be the first of its kind in Ipuli. The African Millenium Foundation plans to use it as a prototype for building other mother-child medical centers in rural areas of Africa.

"The Ipuli project has shown that the community is an important partner in development" — Neema Mgana

PHOTO CREDITS
T o p: Clinic courtyard sheltered by solar panels. A b o v e (left to right): Perspective of Medical training rooms; Clinic Elevations (all Gilliland.Tolila Architecture)

Why Design Matters

A stronger understanding of the impact of design and construction on the environment, smarter siting and the use of innovative materials and building technologies has the potential to improve millions of lives. While architecture is not a panacea, thoughtful design has been shown to generate greater economic prosperity, to reduce the risk of death and destruction from natural and man-made disasters and to generate a sense of dignity and pride. Unfortunately, architects, engineers and other design professionals are needed most where they can least be afforded.

Within the next few years the world's population will be predominantly urban for the first time in human history. According to the latest Global Report on Human settlements, 43 percent of the urban populations in developing regions live in slums. In the least developed countries, as many as 78 percent of people live in substandard living conditions. The statistics are staggering:

- The United Nations Human Settlements Programme estimates that **1 in 6 people live in slums**. If no action is taken, the agency estimates that number could grow to **1 in 3 by the year 2020**. ("The Challenge of Slums" The United Nations Human Settlements Programme, 2003)
- Simple household water treatment systems could meet basic needs for clean water. Yet **more than one billion people still have no access to safe water and 2.6 billion people lack access to sanitation** according to the 2005 UN Human Development Report.
- As of 2004 there were **25 million internally displaced persons in at least 49 countries**, according to the UNHCR. As many as **70 to 80 percent of all internally displaced people are women and children**. Another 9.2 million refugees were displaced by war or conflict.
- The Red Cross estimates that in the past two decades on average more than **75,000 people have been killed annually by natural and manmade disasters**, and another **211 million people have been affected by disaster each year**. What's more the agency reports that the number of disasters and the number of people affected by disasters has risen dramatically in the last decade and is expected to continue to rise.
- Furthermore, most slums and settlements are located on sites not planned for housing exposing residents to industrial pollution, hazardous wastes and contributing to the environmental degradation of communities.
- Although the built environment impacts every aspect of our lives **less than 5 percent of the world's structures are built with the aid of a design professional**.

Architecture for Humanity is uniquely positioned to address these needs. By pursuing a participatory or community design model, Architecture for Humanity empowers communities to improve the built environment. We bring funders together with designers to assist community groups in designing and building sustainable, innovative and appropriate structures. That role includes assisting them in understanding the development process,

TRANSITIONAL SCHOOLS

Location: Ampara District, Sri Lanka
Date: June 2005- August 2005
End client: children and teachers
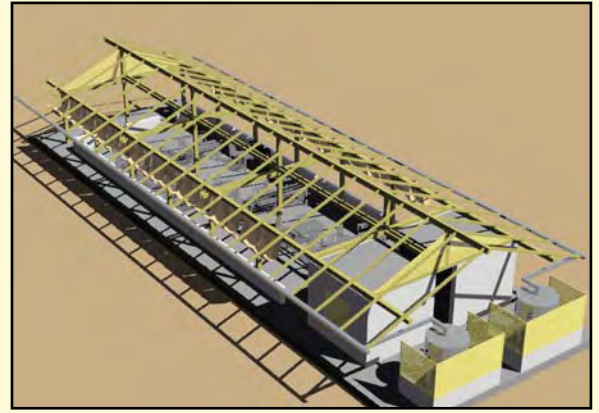Design Team: Jason Anderson (AFH), Samir Shah (AFH), Susi Platt (AFH), Alan Wright (Relief International)
Site Architect: Susi Platt
Project Partners: Relief International
Major Funding: Do Something Foundation, and Pace Academy in Atlanta, Georgia.
Total budget: $3,500 per school (3 classrooms per school)
Area: 1400 sq. ft. each

DESIGN CHALLENGE: The district of Ampara is situated in the dry zone of Sri Lanka's East coast. It's coastline borders the Indian Ocean and bore the full brunt of the tsunami of 26 December 2004. In the district alone 5,520 people died and 37,296 families were displaced. Prior to the disaster the civil conflict that waged on the island for 20 years leaving thousands displaced, and the area suffered severely from a lack of investment in infrastructure.

Shortly after the Tsunami struck, Architecture for Humanity partnered with the international NGO Relief International to identify projects where we could make significant local impact. It became apparent that schools in the district were operating under very poor conditions. Teachers taught children under plastic and canvas sheets propped up by found materials. There were no bathroom facilities available and as a result many children did not go to school. After recognizing a need for "transitional" schools to ensure that children's education could continue during this transitional period and asked us to devise a design. Recognizing the political instability in the area and the likelihood that permanent schools may not be constructed for some time, the challenge for the design team was to design a structure that could be considered temporary by government agencies but serve as a permanent structure if necessary.

PROCESS: A collaborative team based on the ground in Ampara and in the United States worked together to quickly devise an appropriate solution. The team adopted a basic shelter design with woven screens, timber louvers and extended eaves. Low perimeter walls protect the teaching spaces from sand and dust while permitting cross-ventilation in the classrooms. Instead of roof tiles, the community chose to use cajans, traditional woven coconut leaves. This design change was due to both material availability and the fact that cajans deaden the sound of rain during monsoon season. The project also used locally made cement blocks, supporting local industry at a time when it was greatly needed. Relief International hired students' parents to construct the schools in an effort to generate livelihoods. Construction began in July 2005, and the first school was completed in just sixteen days.

SOLUTION: Once completed, the finished architectural schemes were made available to other NGOs and local communities so that the design could be replicated. The first group to replicate the school was the community itself. As a result 9 emergency and transitional schools were built which allowed 1106 children to return to regular lessons. In addition, through a furniture repair program, 2294 desks and chairs were repaired. With the onset of civil conflict in the region in 2006, the construction of permanent schools in the district was postponed indefinitely. The schools, though intended to be temporary, serve as permanent fixtures in the community.

PHOTO CREDITS
Top: Rendering of school (Jason Andersen/Architecture for Humanity). Above: Left, parents construct a temporary school in the Ampara district of Sri Lanka (Cameron Sinclair/Architecture for Humanity); Right, a completed school (Cameron Sinclair/Architecture for Humanity)

GLOBAL VILLAGE SHELTERS

Location: Grenada
Date: July 2005- January 2006
Design Firm: Ferrara Design, Inc.
Material Development: Ferrara Design, Inc., Wayerhaeuser, Inc.
Manufacturer: Wayerhaeser, Inc.
Project Partners: Arquitectonica, Grenada Relief, Recovery and
Reconstruction (GR3); Consulate General of Grenada-Miami;
Marisa Fort-Spear
Major Funding: Architecture for Humanity; Wayerhaeuser, Inc.;
Help International Inc.; Ed Plaut; individual donations
Post-Occupancy Evaluation: Nathan Crane and Kreg Norgaard,
Montana State University School of Architecture
Cost per unit: $400
Units Built: 70

DESIGN CHALLENGE: In 2004 the island of Grenada was ravaged by hurricane Ivan. It caused millions of dollars of damage, decimating 85% of the housing stock and wiping out almost all of the island's main cash crop, nutmeg. With no post-disaster relief plan in place, and scant media attention, it took many months before recovery efforts began. During that time schools and clinics were set up under plastic tarps and many homes were rebuilt from debris. Many of those school and clinics were still being used when Hurricane Emily hit the island in early 2005. Although not as strong as Ivan, many houses, hospitals and schools that were under construction felt the full force of the hurricane and sustained heavy damage. Consequently, the island found itself in need of transitional shelter that could be distributed easily and erected quickly.

PROCESS: In response to this second disaster, Architecture for Humanity partnered with a collaborative team to raise

funds to ship 70 foldable, flat-packed transitional shelters, known as Global Village Shelters, to the island for field-testing as temporary homes and rural clinics. The units, designed by father-and-daughter design team Daniel and Mia Ferrara were made from recycled corrugated cardboard impregnated with fire retardant and laminated for water resistance. Grenada Relief, Recovery and Reconstruction (GR3) set up a staging area for unit assembly and made sure the units got to those most in need.

OUTCOME: Five months later, Montana State University students Nathan Crane and Kreg Norgaard, interns with Architecture for Humanity, visited the sites where the shelters had been distributed to perform a post-occupancy evaluation. They found that while the shelters performed well, improvements were needed to prevent water seeping through the seams and roofing. Many families had adapted the shelters placing them on piers or painting them to better protect them from the elements. This evaluation led to refinements to the design, and in Spring 2006 Ferrara Design worked with NYC Medics, Urban Rural Development Organization and Pakistan Army Engineers to erect 486 shelters in Pakistan after the Kashmir Earthquake (Oct. 2005).

PHOTO CREDITS
T o p: A prototype of the Global Village Shelter (Ferrara Design, Inc.). A b o v e (from left to right): GR3 distributes the units and helps families assemble them (GR3); a family outside their Global Village Shelter (GR3); Nathan Crane (center) recieves feedback on the shelter's performance from a family still living in the shelter after five months (Kreg Norgaard/Architecture for Humanity). B o t t o m: The refined design in use in Pakistan (Ferrara Design Inc.)

facilitating community design workshops, lending our expertise in project management and most importantly supporting and funding the work of the architect.

Although many people and groups learn about us through our web site, currently we provide services primarily via one-on-one emails and phone calls. This is costly, cumbersome and severely limits our reach. For example, we receive between 10 and 20 unsolicited design concepts from professionals around the world each month. However, server space limitations, the lack of an automated system for obtaining permission to publish the designs, and limited resources and time constraints prevent us from sharing these designs.

"The exemplary volunteer organization Architecture for Humanity, reminds us that design solutions that are highly sensitive and properly additive to local cultural norms can be achieved at reasonable cost…an offering of 'hope by design' to a challenged world."
James Cramer, Design Intelligence

In addition, dozens of groups or "chapters" have sprouted in cities around the world that use our model and name—sometimes without our knowledge—to offer pro bono design services on a local level. Chapter leaders frequently ask for information on how to organize their groups, start projects, raise funds, etc. Our current site does not serve their needs.

The network will enable us to expand our efforts as well as the efforts of our chapters exponentially. By creating an online community with access to tools that replicate our model the network will eliminate the need for an intermediary and put the power of design directly into the hands of those who need it most.

Benefits of Community Design

The practice of participatory planning and architecture is often called "community design." Whether neighborhood-based or on a city-wide or regional level, it is the expression of a community's vision for change. The process encourages community groups to set goals and work together to achieve them. By celebrating small victories along the way, community members are empowered to become stakeholders and to pursue larger, long-term goals.

The benefits of pursuing a community design approach are wide reaching. They include:

- Environmentally and culturally appropriate design.
- Universal housing opportunities for low-income residents, the homeless, renters and other marginalized groups that embrace and reflect the diversity of the community.
- A wide variety of ideas to deal with complex issues and express the collective wisdom of a community.
- The prioritization of issues by and with those most affected by the decision-making process.
- The removal of typical barriers to participation, such as formal hearings or inconvenient locations and times for meetings.
- The ability to convey ideas to expert and non-expert participants alike through the use of graphics and 3-D models and other visual presentations.
- Access to expert resources in order to formulate strong proposals to put forward to

BILOXI MODEL HOME PROGRAM

Location: East Biloxi, Mississippi, USA
Date: 2006-07
End clients: 7 local families
Design firms: CP + D Workshop, MC2 Architects, Huff +
Gooden Architects, Studio Gang Architects,
Brett Zamore Design, Marlon Blackwell Architects
Project team: Sherry-Lea Bloodworth, Michael Grote, Matt
Miller, Elish Warlop, and Architecture for Humanity volunteers
Project partners: East Biloxi Coordination, Relief and Redevel-
opment Agency; Enterprise Corporation of the Delta; Gulf Coast
Community Design Studio; Hands On Gulf Coast
Major funding: Boston Society of Architects; McCormick Tri-
bune Foundation; MortarNet; Polshek Partnership Architects
LLP; Oprah's Angel Network;
Project sponsors: Arup (engineering); Isle of Capri (accommodation); Nourison (furnishings)
Cost per unit: $115,000
Units: 5-7

DESIGN CHALLENGE: By size and scope, Hurricane Katrina, which devastated the Gulf Coast, ranks as the most destructive and costliest natural disaster in U.S. history. Soon after the disaster Mississippi engaged in a re-gional planning process to rethink coastal transportation systems, residential areas and commercial corridors. How-ever, for most people questions about rebuilding were more basic: Can my home be salvaged? Is it safe to rebuild on my lot? How will the new flood map elevations and building codes affect me? Would I be better off repairing my home or building a new home? And, if I rebuild, what can I afford to build? The goal of the Model Home Program was to answer those questions for families in East Biloxi, a low-income community on the Mississippi Gulf Coast, and one of the hardest-hit by Hurricane Katrina.

PROCESS: To jump start the program, Architecture for Humanity invited a number of established local and na-tional firms to create proposals for homes that met the new challenges of disaster mitigation in the post-Katrina envi-ronment. In August 2006, these twelve firms participated in a House Fair. The event was open to the public, but also served as a vehicle for participating families to meet and talk with the architects one-on-one and to select a design team with which to work. Architecture for Humanity then paired each family with a design team, facilitated discus-sions between the families and the architects to ensure that their design needs were met and assisted the families in financing the new homes. Ground will break on the homes in Spring 2007.

SOLUTION: By building examples of affordable, safer, more sustainable construction that meet the strict build-ing codes implemented in the wake of Hurricane Katrina, Architecture for Humanity hopes to raise the bar for the design and construction of residential housing in the East Biloxi community. Construction documentation for each of the homes will be made available to the community and to other nonprofits working in the region. A list of ap-propriate, innovative materials will also be generated based on the research done for the project and will likewise be shared with the many volunteer groups rebuilding in the area.

PHOTO CREDITS
Top: Model of proposed home by Huff + Gooden Architects (Tracy Nelson/Architecture for Humanity). Above (left to right): Maurice Cox of CP + D Workshop discusses the firm's concept design with a resident (Tracy Nelson/Architecture for Humanity); Marlon Blackwell works with resident Richard Tyler and his son (Tracy Nelson/Architecture for Humanity); Model by MC2 Architects (Tracy Nelson/Architecture for Humanity).

municipal authorities, funders and others.
- Social engagement and a sense of community through face-to-face interaction.
- The distribution of community resources in a more efficient manner.
- Opportunities for skills training and advancement.
- Greater local capacity for decision making and economic development.
- Communication between different sectors and interests in the community, including government organizations, religious organizations and individuals.

About Our Staff

At the heart of Architecture for Humanity is a core group of people who have generously given their time and talents in support of our organization. With advocates around the world, Architecture for Humanity is truly becoming a global organization that empowers designers to make a difference.

Executive Director/Co-founder: Cameron Sinclair
Managing Director/Co-founder: Kate Stohr
General Counsel: Steven Meier, Jenner & Block LLP
Chief Financial Officer: Nicholas Constantakis
Office Manager: Beth Orser
Web Project Manager: Kari Iverson

Design Fellows & Coordinators:
Gulf Coast: Sherry-Lea Bloodworth; Michael Grote; Tracy Nelson; Elish Warlop
India: Purnima McCutcheon
Sri Lanka: Susi Platt

Advisory Board
We are a registered 501(c)(3) nonprofit organization led by a board of directors and an advisory board that is renewed every two years.

Dr. Robert Blaich, ICSID
Principal, Blaich Associates, Aspen, Colorado, USA

Lisa Dubin
Principal, Lisa Dubin Architect, New York, NY
Consultant, International Rescue Committee

Dr Shaffiq Essajee
Senior Advisor, Clinton Foundation HIV/AIDS Initiative, New York, NY
Director, AIDS Research and Family Care Clinic, Mombasa, Kenya

Prof. Rodney Harber
Principal, Harber and Associates, Durban, South Africa

Steve Kinsler

Principal, East Coast Architects, Durban, South Africa

Dr. Reuben Mutiso
Principal, Tectura International, Nairobi, Kenya

Ambassador Richard Swett
Principal, Swett Associates, Bow, NH, USA
former US Congressman and Ambassador to Denmark

Former advisory board and jury members have included Paola Antonelli, Kate Bourne from the International AIDS Vaccine Initiative, Dr. Johannes van Dam of the Population Council, Frank Gehry, Steven Holl, Dr. Sunanda Ray of SAFAIDS, Dr. Micheal Sweat, Billie Tsien and Tod Williams

>I just wanted to thank everyone there for sending Tracy Nelson to us. We are two
>homeowners who live in the Esplanade Ridge area of New Orleans. We own two very
>dilapidated but historic homes and were trying to maximize our insurance money for
>Katrina damage to improve our homes. I contacted Architecture for Humanity and
>had talked with Tracey in a matter of days. It's a damn shame when you get help
>faster from Bozeman, Montana than you can from your own neighbors.
>
>Anyway, Tracy came out and spent at least two hours looking at our properties, giving
>wonderful feedback and lots of insights. She provided a philosophical approach that
>has guided our small (but significant to us) renovation projects. She followed up with
>phone calls to see how our projects were progressing and in every way made herself
>helpful to us. We really enjoyed meeting her and I know that the changes we have
>made to our houses have been more intelligent and more respectful to the history of
>the houses because we got to spend time with Tracy.
>
>Thanks so much for sending us Tracy, and thanks for caring about New Orleans and
>New Orleans houses!
>
>Sincerely.
>Ann Marie Coviello and Mark Quirk

Volunteers
Our local groups have been working with community groups and housing advocates and engaged with issues related to homelessness, low-income housing and building community. In the United States, volunteer groups have formed in Atlanta, Boston, Chicago, Minneapolis, New York, San Francisco, San Diego and Seattle. Internationally volunteers have formed groups in Genoa, Italy; Dublin, Ireland; London, England and Sydney, Australia.

Awards
Architecture for Humanity is the winner of the 2004 Design for Humanity Award, the 2005 Lewis Mumford Award for Peace, the 2005 Index Award To Improve Life, the 2006 WIRED Rave Award for Architecture, and the 2006 TED Prize.

To learn more about our work, please visit: www.architectureforhumanity.org

AMBEDKER NAGAR COMMUNITY CENTER

Location: Ambedkar Nagar, District of Cuddalore, Tamil Nadu, India.
Date: 2005-2006
End client: 180 families of Ambedker Nagar
Architect: Purnima McCutcheon
Project Partners: League of Education and Development (LEAD)
Construction team: Villagers of Ambedker Nagar
Major Funding: BPB Ltd., Boston Society of Architects and individuals.
Total budget: $11,333
Area: Site Area is 4,300 sq. ft. and the Building Area is 1,370 sq. ft.

DESIGN CHALLENGE: The Ambedkar Nagar village, a Dalit community made up of landless laborers, was greatly affected by the tsunami. The inhabitants of the village lived on land belonging to the upper caste and leased land to farm on. The tsunami occurred a month prior to harvest, destroying not only homes but also the year's crops and the community's ability to generate a livelihood. Project partner LEAD worked with villagers through the recovery process and identified a need for a central gathering space and educational center for the village. This center would also serve as a shelter for the villagers during extreme weather when their mud and thatch houses prove inadequate.

PROCESS: Architecture for Humanity and LEAD held a series of workshops to assist the community in identifying their needs, evaluating grants available and creating a program for design. Villagers pooled together savings to purchase land on which the structure would be built. After design and planning workshops the architect, Purnima McCutcheon, developed a schematic plan that included a large multipurpose hall (which serves as a tuition center and a Balwadi, or pre-school), a kitchen, a play court, a women's office, a training room, a library, a rope making area, and toilets. Hybrid solar panels power the structure. The contractor rented a home in the village and identified and hired local community members to construct the project. Elements of the community center, such as mud boundary walls, palm fences, outdoor seating areas, and corridors with thatch roofs were built by community members using traditional methods so as to foster a sense of ownership, celebrate local building traditions and ensure communal maintenance. The area's children designed the murals that adorn the community center walls. The construction team broke ground on October 12th, the last day of the Navratri, or Durga Festival. The building was completed in June 2006.

SOLUTION: Through a participatory design process the community became extremely engaged in the project and as a result the building is far more than a community center. It is also a center for education in the village and a meeting place for newly formed women's cooperatives, livelihoods projects, and adult technology training. LEAD has continued its relationship with the community by creating women's groups and micro lending programs.

"This community center will be more sacred to us than the village temple. The village priest locks up the temple at the end of the day. The community center will be ours." – a community member comment at a community design workshop on the importance of the new building to the community.

PHOTO CREDITS
Top: Villagers celebrate the opening of the building. (Brian Jolley/Architecture for Humanity) Above (from left to right): Architect Purnima McCutcheon facilitates a design workshop (Architecture for Humanity); Exterior of the completed building (Architecture for Humanity); Balwadi (pre-school) children learn in the center's multipurpose hall (Brian Jolley/Architecture for Humanity).

Current Financial Statement
January 1st, 2005 - December 31st, 2005

Income

Foundation Grants	181,068
Fundraiser Revenues	51,694
Individual Donations	147,745
Corporate Donations	258,154
Other Private Donations	296,264
In-kind Contribution	79,167
Interest	7,324
Earned Income	3,750
Release of Restricted Funds	52,289
Total Income	1,077,454

Expense

Personnel Expenses	68,576
Bank and Credit Card Fees	3,098
Cleaning	580
Dues/Memberships/Subscriptions	435
Electric	1,009
Equipment Purchase/Rental/Maint	11,248
Equipment Purchase/Rental/Maint (in-kind)	36,370
Fundraiser Expenses	28,868
Insurance	1,136
Marketing/Advertising/Promotion	1,015
Meeting/Cultivation Costs	2,245
Postage/Delivery/Shipping	18,279
Printing/Photography	276
Program Supplies	7,993
Design and Construction Contracting	199,962
Professional Fees	5,500

Office Supplies	3,771
Space Rental	8,510
Telephone/Internet	5,872
Travel/Lodging	54,381
Website Costs	358

Total Expense	459,480

Temporary Restricted & Cash Reserves	617,974

S A F E (R) H O U S E

Location: Balapitiya, Sri Lanka
Date: 2005
Client: Prajnopaya Foundation
End client: Displaced residents of Dodanduwa, Sri Lanka
Design team: Ellen Chen, Eric Ho, Nour Jallad, Rick Lam and Ying Zhou, Tsunami Design Initiative (TDI), Harvard University, USA; Luis Berrios, Justin Lee and Carlo Ratti, SENSEable City Laboratory, MIT, USA; Walter Nicolino, Carlo Ratti Associati, Italy
Project coordinator: Carlo Ratti, SENSEable City Laboratory, MIT
Engineer: Domenica Del Re, Buro Happold Engineers, London
Cost per unit: $2,400
Area: 400 sq. ft./37 sq. m.

Image: TDI

DESIGN CHALLENGE: The destruction wrought upon Southeast Asia by the tsunami of December 26, 2004 left more than one million people displaced and caused the overhaul of coastal communities throughout the region. Many homes that seemed to survive the tsunami were actually structurally unsound and collapsed, killing returning residents who returned. A cost-effective design for safer housing was needed throughout the region.

PROCESS: A collaborative team from Harvard Graduate School of Design and the SENSEable City Laboratory at MIT partnered with the Prajnopaya Foundation to investigate developing technological strategies that could allow families to return to their homes and guarantee future safety at a lower cost. This meant finding a low-cost housing solution that could better resist wave surges yet still reflect the vernacular of the area. The designers emphasized the use of local materials and building methods to make the house both cost-effective and easy to replicate.
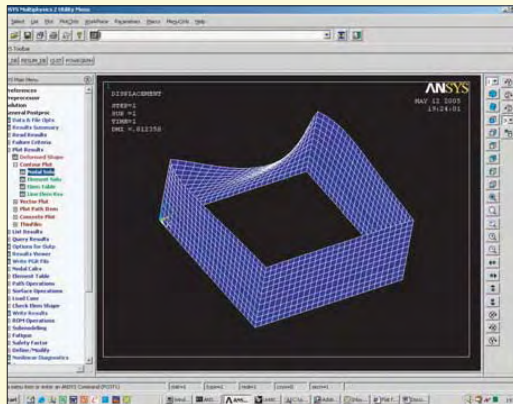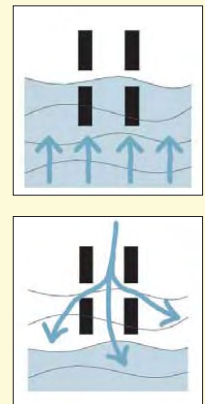

Wave Pressure on Traditional Design
Image: Buro Happold
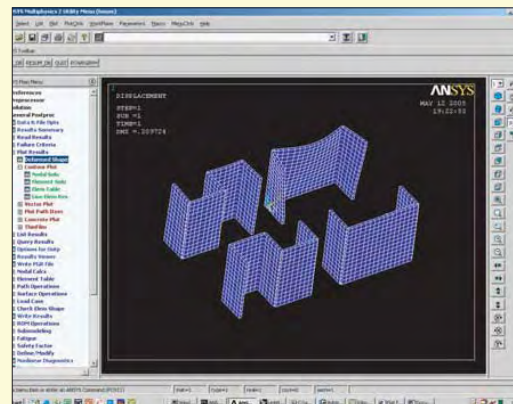
Wave Pressure on Safe(r)house Design
Image: Buro Happold

Porosity
Image: TDI

SOLUTION: Traditional homes in Sri Lanka are constructed from concrete blocks, with two windows, one door, and a tiled or tin roof. By contrast, the Safe(r) house replaces this core with four C-shaped concrete structures that provided higher resistance to pressure without blocking the flow of water. London-based engineers Buro Happold then tested the design and found that because core columns increase porosity, it is five times more resistant to the force of a wave than traditional structures.

With funding from Architecture for Humanity the team worked with the Prajnopaya Foundation to build a pilot house in Balapitiya, Sri Lanka. Once completed the foundation went on to build 200 homes based on this elegant, effective design.

Image: TDI

Balance Sheet
January 1st, 2005 - December 31st, 2005

Assets

Current Assets	
Checking/Savings	
Wells Fargo - TD	105,933
Wells Fargo - CHK	451,366
HSBC Sri Lanka	1,951
PayPal	65,935

Accounts Receivable	
Contributions Receivable	118,650

Total Accounts Receivable	118,650

Other Current Assets	0

Total Current Assets	743,836

Fixed Assets	
Office Equipment	3,389

Total Fixed Assets	3,389

Total Assets	747,225

Liabilities, Temporarily Restricted, & Cash Reserves

Liabilities	
Current Liabilities	
Accounts Payable	
Accounts & Grants Payable	129,251

Total Accounts Payable	129,251

Total Current Liabilities	129,251

Total Liabilities	129,251

Liabilities, Temporarily Restricted, & Cash Reserves	
Liabilities	
Current Liabilities	
Temporarily Restricted & Cash Reserves	
Temporarily Restricted & Cash Reserves	617,974
Total Temporarily Restricted & Cash Reserves	617,974
Total Liabilities & Equity	747,225