Join us!

Global University Consortium Exploring Incremental Housing

We are championing ‘incremental housing’ (core housing) as a viable proactive strategy for meeting the challenge of exploding Third World city growth expected over the next 20 years. The current development focus on slum upgrading is not sufficient, overly expensive, and is trapped in a hopeless catch-up mode. Our goal is to build global awareness of the incremental alternative, drawing on experience in the 70s and the demonstrated abilities of the expanding informal sector.

We have grounded a network of universities, under the name ‘Global University Consortium Exploring Incremental Housing’. HomeBase is the SIGUS Group at MIT, with 23 members at this time and growing. The Consortium universities undertook sample field surveys of incremental experience in their countries, which were presented at the UN World Urban Forum and used as reference for further research.

It keeps getting better!
THE CHALLENGE

“Take ALL of the Third World urban housing of the past 6,000 years, but this time build them in 20 years.”

How to house everyone?

70% of Third World urban housing is built informally

They are the key actors in the housing supply chain.

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WE ACCEPT THE CHALLENGE!

The Global University Consortium

Our goal is to develop and promote effective strategies for urban growth in the Third World to address critical development issues.

WE WELCOME INCREMENTAL HOUSING AS AN INTEGRAL URBAN DEVELOPMENT PROCESS IN BUILDING CITIZENSHIP

Pontificia Universidad Católica de Chile
Facultad de Arquitectura,
Diseño y Estudios Urbanos
Santiago, Chile

Technologico de Monterrey (ITESM) Campus Chihuahua
Chihuahua, Mexico

Instituto Tecnologico de Chihuahua II (ITCH II)
Chihuahua, Mexico

SEPI-FAUAEEM
Cuernavaca, Morelos
Mexico

Federal University of Rio Grande do Sul
Passo Fundo City, Brazil

Universidad Los Andes
Facultad de Arquitectura
Merida, Venezuela

La Universidad Catolica de Guayaquil
Facultad de Arquitectura
Guayaquil, Ecuador

Cairo University
Architectural Department,
Faculty of Engineering
Cairo, Egypt

University of Khartoum
Department of Physical Planning and Urban Design
Khartoum, Sudan

Thammasat University (Rangsit Campus)
Faculty of Architecture and Planning
Bangkok, Thailand

Nanjing University of Technology
Nanjing, China

University of Nairobi
Department of Architecture and Building Science
Nairobi, Kenya

University of Zambia
Institute of Economic and Social Research
Lusaka, Zambia

Istanbul Technical University
Faculty of Architecture
Cyprus International University
Department of Architecture

Technical University of Lisbon
Faculty of Architecture
Lisbon, Portugal

Instituto de Engenharia de Estruturas, Território e Construção
Lisbon, Portugal

Academia de Escalas de Arquitectura e Urbanismo de Língua Portuguesa
Lisbon, Portugal

Warsaw Polytechnic University and Polytechnic of Lublin
Warsaw, Poland;
Lublin, Poland

University of Texas at Arlington
School of Architecture

Massachusetts Institute of Technology
School of Architecture and Planning
HomeBase: SIGUS Group

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THE INCREMENTAL PROCESS
Learn from what you see

PROCESS CRITERIA TIME, FAMILY SIZE, INCOME, HOUSE EXPANSION

DEFINITION POINTS
What are the boundaries which define the self-sustaining \( \frac{1}{4} \)chance of success and represent our successes?

CUIDADO SQUATTER SETTLEMENT. LIMA 1991-2001

EL TRENZADO SQUATTER SETTLEMENT. LIMA 2001-2004

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IT WORKS!
Both formal and informal succeed

Typology of core houses

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PARTNER WITH ENERGY
Establish a FRAME for development

FRAME OPTIONS

COMPLETE FRAME
Lots, roadways, public facilities zones

Racing to answer in!

MAIN ORGANIZING ELEMENTS
Neighborhood clusters, walkways, public facilities area

Racing to move in by groups of families.

MAIN STREET GRID AS FRAME
Roadways, public facilities area

Racing with development protocols.

THE BASIC BUILDING BLOCK
THE NEIGHBORHOOD CLUSTER
- 20-25 families
- Shared open space

Advantages:
- Prevents social segregation
- Strengthens and promotes security
- Provides immediate identity
- Long-term climate intervention

Opportunities:
- Planned multi-family expansion
- Community services
- Youth sports activities in shared area
- Facilitates effective owner support
- Provides base for representative structures

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PARTNER WITH ENERGY
Provide a Starter CORE

A COMMUNITY WITH VARIOUS
CORE HOUSE OPTIONS

**BENEFITS**

*To the City:*
- Provides quick living accommodations for shelter
- Mitigates impact on infrastructure
- Aids facility planning and development of city

*To the Family:*
- Lower price tag
- Versatile design to expand
- Meets individual needs
- Can move in immediately
- Provides immediate equity
- Can use local skills and materials to expand

*To the Community:*
- Provides immediate housing
- Delays street and neighborhood

**OPTIONS**

- **Shell House + Lot:** Complete home without interior walls—ready to move in!
- **Starter Core House + Lot:** Rooftop unit, kitchen/kitchenette ready to move in. (Recommended)
- **Floor Slab, Party Walls + Lot:** Requires setting of main shell before moving in
- **Lot Only:** Requires building of main shell before moving in

Water, sanitation services provided through a variety of communal and individual options

**Citizen**

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PARTNER WITH ENERGY
SUPPORT the process
Help it Grow

A GROWING DIVERSE COMMUNITY

ESTABLISH SUPPORTING POLICIES
- Promote good quality, safe construction
- Facilitate process to speed development
- Strengthen community
- Ensure basic services

CONSIDER GOVERNMENT CAPACITY

CONSIDER STAGE OF DEVELOPMENT

It keeps getting better!

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TECHNOLOGY CAN HELP!

Computers and Cell Phones

A Computer Rule-based Model for Housing and Urban Design

Prof. Jane Darcy, Technical University of Lisbon
Email: jdarcy@tul.pt

Sustainable, affordable and participatory urbanization

The overall concern is to develop innovative models of urban design that can help to meet the needs of the world's population. This concern led to the development of a new approach to urban design that incorporates sustainable, affordable, and participatory principles. The approach is based on the use of computer models to simulate the effects of different urban design strategies on the environment, economy, and quality of life of communities. The computer models are used to evaluate the performance of urban design options under various scenarios, including different levels of population growth, economic development, and environmental conditions. The results of the simulations can be used to identify the most effective urban design strategies for different communities and to inform the development of sustainable and participatory urbanization policies.

An Innovative Cell Phone Survey Interface - The 'mSurvey'

Benjamin Griffith, Andrew Ely, MIT

Let her voice be heard...

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**IS INCREMENTAL A GOOD STRATEGY**

*For Haiti and Chile?*

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“Housing in the developing world is by its very nature a transitional process. People generally don’t build homes all at once. The transitional shelter forms the core. They put on kitchen facilities or an additional room, or something like that, and little by little begin rebuilding their home.” Regional Director for Asia, CHF International (Interview with NPR on Rebuilding Haiti, February 28, 2010.)

“It looks like to me there is a perfect laboratory in the Haiti disaster to perfect a building technology that would be applicable worldwide. Not only for disaster zones but everywhere.” Anonymous

“We plan to replace destroyed homes with transitional shelters. Improvements and additions to transitional shelters can be made over time - turning them into permanent core houses. We will also rebuild in ways that reduce risk and improve construction quality.” Fox News

“We need to be able to map the demand and track the response, but we can’t.” Charles Claremont, head of the temporary settlements for the reconstruction commission. CNN (Haiti)

“Chile’s economy is one of the fastest growing in Latin America. But there is another side of Chile for which the picture cannot be as optimistic: the depressed areas that have never enjoyed the nation’s boom. These ‘callampas’ or improvised wards, unfortunately, is where the earthquake has hit the hardest. *The question is, how will the government address these people’s need for housing and employment?”*

“That’s what we will anticipate being the long-term solution for Haiti. *It’s a core house that is permanent.* It has permanent materials in it. It’s disaster resistant. It’s also designed to withstand earthquakes and also hurricanes. And it also, of course, requires that the land is owned by the family, that investment is sure to the family.” Mario Flores, Director of Global Response for Habitat for Humanity (CNN Transcript)

“The demand [for housing] is so monumental that there is no country in Latin America that is able to address it alone.” says Erik Vittrup at the Latin America and the Caribbean office for the United Nations Human Settlements Program in Rio de Janeiro.

“The government has already proposed a plan to resettle about 400,000 homeless earthquake victims, which has drawn mixed reactions. Some Haitians have voiced objections to moving to a place that is unknown to them. Voltaire said he is confident that Haitians will move to where there are economic opportunities.” CNN

“Chile’s economy is one of the fastest growing in Latin America. But there is another side of Chile for which the picture cannot be as optimistic: the depressed areas that have never enjoyed the nation’s boom. These ‘callampas’ or improvised wards, unfortunately, is where the earthquake has hit the hardest. *The question is, how will the government address these people’s need for housing and employment?”* Anon

“To get out of poverty you need a job, you need education and health services, but if you do not have a physical space to live in, the rest of it does not matter.” Father Berrios said in a December interview at his office on the outskirts of Santiago.

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