



architecture for disaster reduction
and reconstruction,
5th i-Rec student competition



**participatory design and appropriate technology
for post-disaster reconstruction and disaster reduction**

in parallel with the 5th i-Rec international conference
CEPT University campus, July 15 – 20, 2010
Navrangpura, Ahmedabad, India (www.cept.ac.in)

RESULTS OF THE 5TH STUDENT COMPETITION

With the contribution of:

ARCOP



The jury of the 5th i-Rec student competition included professors, researchers and practitioners with long experience in housing projects and in post-disaster interventions. The members of the jury were:

Dr. Rohit Jigyasu, architect, Ritsumeikan University, Kyoto

Prof. Rabindra Vasavada, Professor in architecture, CEPT, Ahmedabad

Prof. Neelkanth Chhaya, CEPT University, Ahmedabad, India

Dr. Jennifer Dwyne Barenstein, Senior researcher and head of the World Habitat Research Centre, University of Applied Sciences and Arts of Southern Switzerland SUPSI

Mr. Durganand Balsavar, architect, Artes human settlements development centre - Cheenai

14 projects, conducted by graduate and undergraduate students, were submitted to the competition. Seven universities participated in the competition:

Université de Montréal, Faculté de l'aménagement / École d'architecture, Montreal, Canada

Pontificia Universidad Javeriana, Facultad de arquitectura, Bogotá, Colombia

University of Auckland, School of Architecture and Planning, Auckland, New Zealand

McGill University, School of Architecture, Montreal, Canada
Carleton University, Azrieli School of Architecture and Urbanism, Ottawa, Canada
Universidad Santa Clara, Cuba
University of Plymouth, Plymouth, United Kingdom.

The 5th i-Rec international competition invited participants to:

1. Develop a balanced approach, reconciling appropriate technology and active user participation in decision making.
2. Do not concentrate on designing houses alone. Instead, projects must provide a comprehensive approach to the issues of social vulnerability, long-term development, economic recovery and sustainable development.
3. Examine how the architectural project can promote the long-term development of the affected community while meeting the short or medium term requirements of providing shelter.
4. Study comprehensive solutions that go beyond the scale of the housing unit (the house, the apartment, the shelter) and that include the scale of the settlement.
5. Examine not only the technical aspects of housing reconstruction but also to present a scenario for an organizational design that articulates the participants, their actions, their resources and how they are made available.
6. Explore the end-product (the dwellings, their adaptability and cultural suitability, etc.) while examining process-related aspects such as: employment, logistics, financing, international aid and national responses, temporary shelter, etc.

Selection of best entries was made on the basis of contextual relevance, principles of participatory design, appropriate technology, cost effectiveness, flexibility, sustainability, and presentation of the project.

The prizes were sponsored by **The Arcop Group** and Spon Press. The following prizes were awarded during the international conference:

Best project - Arcop award: 1500 (CAN\$) + 3 Spon Press books
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Arquitectura VS Desastre

The project from Cuba '**Arquitectura VS Desastre**' was adjudged the best entry because it demonstrated sensitive understanding of locally available resources, efficient use of renewable energy as well as consideration for incremental growth of the housing units over time.

By:

Jorge Rivero Bonet
Lismary Pallas Hernández
Arsenio Rodríguez Torres

Universidad Santa Clara, Cuba

Supervisor: Andrés Olivera Ranero

Abstract: The project approaches the real case of Isabela of Sagua, a small town of fishermen located in the northern coast of the central region of Cuba, place that it receives frequent hurricanes and other natural extreme events. Taking advantage of the existent local capacities, so much natural and environmental, as of the local economy, it thinks about a strategy that embraces the stages before and after the disaster, combining in a novel way the local possibilities of preventive preparation, with emergency actions and post-disaster recovery. The project intends solutions of popular housings using the eco-materials for build houses and the use of the red mangrove, an important natural resource used by the fishermen for multiple uses. These proposals can be of direct application for the community and for the local decision-makers.

Second Arcop prize: 1000 (CAN\$) + 3 Spon Press books

Community Building: A Catalytic Approach

The Project '**Community Building: A Catalytic Approach**' in Colonia, Uruguay was adjudged the second prize for its special consideration of local economy, capacity building and the use of responsive incremental design plan.

By:

Andrea Chynoweth

McGill University School of Architecture, Montreal, Canada
Supervisor: David Covo

Abstract: When it comes to the development of low-cost housing projects, a conventional design paradigm is to provide the best possible product given the available resources. However, as the resources in this context are typically scarce, the resulting architecture is often a severe compromise of quality, both spatially and in materiality. Built projects of this kind often fail to adequately meet the needs of end users and as a result deteriorate more quickly, attract a certain social stigma, and perpetuate the poverty cycle by their incapacity to act as a value-retaining asset.

Alternatives to this approach however do exist. Sites-and-services models, innovations in low-cost building materials, and incremental building procurement strategies all attempt to overcome an initial shortage of resources by incorporating the notion of time. In this paradigm, it is the end users who are given the capacity to make significantly more decisions in housing themselves within an established yet flexible design framework. This framework acts as a catalyst for community development; providing the necessary immediate shelter as well as an inherent capacity to accommodate growth and change over time. This study explores this catalytic framework using an integrated design and construction technology approach, in the context of a cooperative row-house development in rural Uruguay.

Third prize: 3 Spon Press books

(re) facing the Inuit

The project **(re) facing the Inuit** in Salluit, Canada was declared third runner up. The proposal incorporated strategies that were socially, culturally and technologically compatible to the Inuit community.

By:

Sarah Rogers
Przemyslaw Myszkowski

Carleton University (Architecture), Ottawa, Canada
Supervisor: Roger Connah

Abstract: The effects of climate change have not yet begun to hit the majority of the world population, but it has begun. Areas in northern climates are being affected as we speak. Water levels are rising and causing erosion, melting of permafrost, causing infrastructure to become unstable, and migration of vegetation and wildlife to other areas. We have selected Salluit in northern Quebec, Canada as our case study. The Inuit community of Salluit is a growing and has the begun to feel the effects of climate change induced natural disasters. This community has already been threatened by mudslides, rapid erosion, extreme climate, and flooding. In response to these natural disasters, the decay of suitable development sites, shortage of housing, disease and need for proper infrastructure have quickly become primary concerns for the citizens of Salluit. We have proposed four strategies that can be implemented together or separately to help the citizens of Salluit. These four strategies are; regrouping, reclaiming, recreating, relocating.

For more information about the competition please contact:

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