

Brave visions for a more sustainable world

Although the student poster competition was a theme mainly during the breaks in the Holcim Forum, it was anything but a sideshow. The students presented a number of extremely forward-looking and exciting ideas.

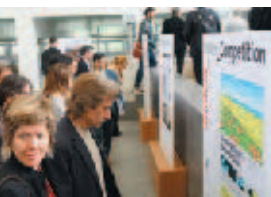


Gretchen Wilkins, USA;
Sisel Lan, Mexico.

“Ladies and gentlemen – this is the future of sustainable construction,” announced moderator Hans-Rudolf Schalcher, as he called the participants of the student poster competition to the front of the main auditorium. The scholars kept the Forum participants busy because during the coffee breaks they could present their projects – and gain the votes of the Forum participants, all of whom were asked to choose their favorite projects.

30 projects from 6 universities

Invitations to the competition were sent by the Holcim Foundation together with its six closely allied universities: the Swiss Federal Institute of Technology (ETH Zurich), Switzerland; Massachusetts Institute of Technology (MIT), Cambridge, USA; Tongji University, Shanghai, China; Universidad Iberoamericana (UIA), Mexico City, Mexico; University of the Witwatersrand, Johannesburg, South Africa; and Universidade de São Paulo (USP), Brazil. Scholars at these universities were



Cibele de Barros, Brazil;
Nazim Farajzade, Azerbaijan.



asked to develop sustainable construction projects and present them as posters. Each university selected its five best projects. The creators of these projects were invited to the Forum in Shanghai, where they could directly explain their work to the interested viewers.

Ideas instead of finished concepts

It required full concentration of the Forum participants to absorb the projects during the breaks. This was not found to be a burden, but a pleasure, chiefly because of the high quality of the projects. Most of the students did not present finished concepts but intelligent food for thought, stimulating designs that can be fully developed and realized. The intensive discussions between the students and the renowned architects and urban planners again and again proved highly fruitful. Visions and utopias crossed with experience and farsightedness; the conceivable confronted the feasible. The future of sustainable construction is colorful, multifaceted – and full of ideas!

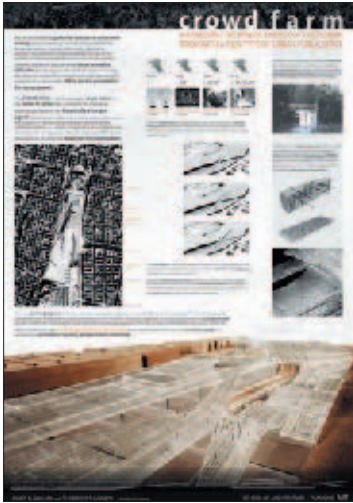


Albert S. Wei, USA;
Holger Wallbaum,
Switzerland.



Miguel Aldana,
Carolyn Aguilar
and Miguel
Almaraz, Mexico.

1st



First prize: Every step is energy

The competition was won by James Graham and Tad Jusczyk from Massachusetts Institute of Technology (MIT) in Cambridge, USA. Their project “Crowd Farm” presents an original response to energy shortage: a tectonic floor system that absorbs the forces of footsteps and transforms them into useable energy. The system can be compared to a dynamo. Of course a single human footstep delivers a negligible amount of energy. But the idea here is to capture the kinetic energy of a large mass of people, for example commuters at a train station.

James Graham and Tad Jusczyk, USA.

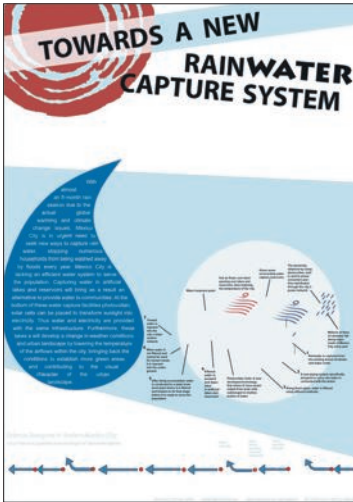
2nd



Second prize: Eco-Oasis in Egypt

Konrad Milton from the ETH Zurich won second prize with his project "Creating Egypt's Seventh Oasis". In contrast to other topographic depressions in Egypt – the oases – the depression at Qattara is dry and vacant. Konrad Milton proposes pumping water in an ecological way into this inhospitable valley to create a new oasis. It would be surrounded by a network of small, densely laid-out villages. All houses would be equipped with sustainable green infrastructure. Water from the Mediterranean could also be used for cooling the buildings.

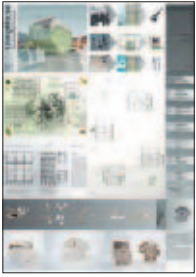
3rd



Third prize: Water concept for Mexico City

Gustavo Torres from the Universidad Iberoamericana (UIA), Mexico City, won third prize for his project “Towards a New Rainwater Capture System”. Climate change is extending the rainy season in Mexico City. Torres proposes ways to prevent the potential flooding of whole districts and to use the water. New lakes and reservoirs improve the public water supply; photovoltaic cells can be installed on the bottom of the reservoirs to produce electricity. The artificial lakes also enhance the microclimate.

Gustavo Torres, Mexico.



Recognition prize for canister housing

The Chair of the Advisory Board of the Holcim Foundation, Rolf Soiron, also announced two highly commended projects. The first is the “Living-House Sustainability Concept” by Nils Havelka and Nicolas Zimmermann of the ETH Zurich. The two architecture students designed a flexible building, the core of which can be adapted to suit the changing needs of the residents. The core is enclosed within an envelope of plastic canisters. The canisters are filled with algae and are used for air purification, drinking water treatment and energy recovery.

Recognition prize for “micro-urbanism”

Dukui Li, Jia He and Yuguang Wang from Tongji University, Shanghai won a recognition prize for their project “Micro-urbanism”. The project responds to a widespread problem in Shanghai. When districts are completely rebuilt, the residents must evacuate and move into temporary housing until the work is completed. The project team proposes building “migrate megas” – residential units that can be expanded as needed, and integrated into the urban fabric after the temporary users move out.

Nils Havelka and Nicolas Zimmermann, Switzerland.

Jianjia Zhong, China, on behalf of the highly commended team.