The second cycle of the Holcim Awards competition ended with an exciting climax. The four global prizes were conferred at handover events in Beijing, Ho Chi Minh City, Fez, and San Francisco. The Holcim Group companies in each country used the occasion to focus the attention of the public, customers, designers and media on the importance of sustainable construction – and to show how Holcim is playing its part. – The cover image shows the winners at the Awards ceremony in Fez being drenched in a sparkling array of camera flash for minutes.
In the first cycle of the Holcim Awards the global winners received their prizes at a single large ceremony in Bangkok in 2006. In the second cycle the worldwide importance of the Holcim Awards was further stressed. Separate Awards ceremonies were held at the locations of the winning projects. This made it possible to focus on each project more intensively, and brought the projects to the interest of their own national media. At each of the four handover events Holcim Ltd was represented either by CEO Markus Akermann or Chairman Rolf Soiron as well as members of the Holcim executive committee.
On July 16, 2009 at a festive ceremony in Fez, Morocco, with 220 invited guests the Global Holcim Award Gold 2009 and prize money of USD 300,000 were presented to the two architect Aziza Chaouni and urban planner Takako Tajima. Their winning project envisions rehabilitating the medina of Fez – the medieval city center – with a range of interventions. In recent decades the Fez River, which flows through the city, has been almost completely built over and has degenerated into a polluted trickle. Now it is being cleaned up and uncovered. It will once again serve the community as a public recreation site and offer habitat for flora and fauna.

One of the most important sights of the city, the old tannery and dyeing center, will be reworked in an environmentally conscious way and will display traditional arts and crafts that provide many citizens’ income.

Enrique Norten (Mexico/USA), member of the global jury and the Advisory Board of the Holcim Foundation, said: “What distinguishes this project is its wisdom. It uses what is available and builds upon it. At the same time, it keeps the process open for future needs and opportunities.”

Members of the winning team: Nicko Elliott, Aziza Chaouni and Takako Tajima from the Bureau E.A.S.T., applauded by over 200 guests at the handover ceremony.

Julia Marton-Lefèvre, Director General of the International Union for Conservation of Nature (IUCN, Switzerland), commends the Holcim Awards competition for demonstrating the need for sustainable approaches to building and construction.

Gold Award – Morocco
River remediation and urban development scheme, Fez
On July 3, 2009 in Ho Chi Minh City the Japanese architect Kazuhiro Kojima and his team received the Global Holcim Award Silver 2009. They earned the prize, endowed with USD 200,000, for their design of a new campus for the Ho Chi Minh City University of Architecture. The current site of this university lies in the city center and is bursting at every seam. The new campus will be situated in the Mekong Delta.

The tropical character of the river delta significantly informs the award-winning design. The architects used state-of-the-art methods of computer-assisted flow analysis to model the movement of wind and people and responsively adapt the campus design.

The university buildings will be fully immersed in nature. Power consumption will be reduced through the use of daylighting and photovoltaic panels. Rainwater will be harvested and used for cooling. In his speech at the ceremony, attended by 130 guests and 25 reporters, Ashok B. Lall (India), head of the jury for Asia Pacific, emphasized the qualities of the project: “It is integrated into its natural environment with light, wind, and water, and it allows the environmental footprint of the campus to be kept to a minimum.”

Silver Award – Vietnam
Low-impact greenfield university campus, Ho Chi Minh City

The project vision for the new campus of the University of Architecture blends harmoniously into the landscape of the Mekong Delta south of Ho Chi Minh City. By harnessing prevalent winds for natural ventilation, air-conditioning use will be reduced.
Land for growing food crops is becoming scarce in China. This planning project in the rural community of Shunyi near Beijing aims to use land more efficiently, improve the rural living conditions, and reduce environmental impact. The project received the Global Holcim Award Bronze 2009 which was presented on June 19, 2009 in Beijing.

Led by architect Yue Zhang and government official Feng Ni, the project team developed a process that began with careful observation of local conditions and involved local stakeholders in the planning. The master plan classifies land use, sets limits to building development, protects natural resources, and includes public-use zones.

Professor Wowo Ding, member of the Asia Pacific competition jury, presented the Award, which carries prize money of USD 100,000, at the ceremony attended by 140 guests and 60 news reporters. She praised the project: “An outstanding element of the process is the thorough analysis of the existing physical and cultural situation. A step-by-step procedure was utilized that deals with energy and water efficiency, water supply, waste management, and public space.”

Bronze Award – China
Sustainable planning for a rural community, Beijing

Yue Zhang, Deputy Chair of the Urban Planning Department, Tsinghua University Architecture School, receives the award on behalf of the project team from Tom Clough, member of the Executive Committee of Holcim Ltd. Behind them Rolf Soiron, Chairman of Holcim Ltd.

Peter Head (UK), Director and Head of Planning and Integrated Urbanism, Arup, London, and Global Holcim Awards jury member, illustrates the tangible approaches to sustainable construction in China that focus on economic growth, rural development, environmental performance and healthier cities.
Small cost, large effect – the day labor station eases life on the street for day laborers. Although built as a prototype, the project team are in ongoing discussions with several cities eager to trial the concept.

“Innovation” prize – USA
Self-contained day labor station, San Francisco

In addition to the Global Holcim Awards gold, silver, and bronze, in this competition cycle an “Innovation” prize endowed with USD 50,000 was awarded for the first time. It was presented on May 31 in San Francisco to Liz Ogbu and John Peterson for their project “Self-contained day labor station”. The two architects, who devote part of their working time to the nonprofit organization Public Architecture, designed a shelter for day laborers who offer their services on the street. The shelter gives the day laborers a place to sit, a kitchen, and bathrooms. It can also be used for training purposes.

The jury acknowledged the project as solution to a situation described by the neighborhood as a nuisance and by the police as difficult to control. 110 guests and 15 reporters attended the Awards ceremony.

Saskia Sassen, member of the Global Holcim Awards jury, observed that “This low-cost solution gives people on the fringe of the society a social net – and thereby perceptible relief of their situation. Simultaneously, it eases a social problem in neighboring districts.”

Enrique Norten (Mexico/USA), Principal and founder, TEN Arquitectos and Global Holcim Awards jury member, congratulates John Peterson and Liz Ogbu who received the Global Holcim Awards 2009 “Innovation” prize.

Awards ceremony in the California Academy of Sciences, a building which itself won a Holcim Award in 2005 for successfully demonstrating the effective integration of concerns for sustainable construction with sophisticated architectural design.

Saskia Sassen (USA), Robert S. Lynd Professor of Sociology, Columbia University, New York, and Global Holcim Awards jury member, compares the prize winning project with an algorithm where the sum of many small interventions finally makes a significant difference to the big picture.
Recognition for the finalists
The 3 winning projects from each of the 5 regions automatically qualify for the global Holcim Awards competition, for which 4 prizes are given. The additional 11 projects receive a finalist certificate.

Chris Collins holds his finalist certificate in his hands. Paul O’Connor and David Loomes of Holcim US presented the certificate on the site of Solar One on the banks of the East River in New York – the site on which the award-winning project Solar 2 is planned.

Amer Moustafa, jury member for Africa Middle East, and Patrice Chanton, representative of Holcim in the UAE, present Shaun Killa a finalist certificate for his project “Lighthouse tower with low-carbon Footprint” at the Cityscape conference in Dubai.

For her project “Temporary urban extension in a former landfill” in Maribor, Slovenia, Belinda Tato receives a finalist certificate presented by Alain Bourguignon, CEO of Holcim Spain. The handover took place at Escuela Técnica Superior de Arquitectura.

Global Awards jury meeting

The jury of the global Holcim Awards competition had a two-day meeting in Zurich to evaluate the 15 qualified projects from the regional competitions. The jury was headed by Charles Correa (above), Principal and founder, Charles Correa Associates, India.

Further members were Peter Head (UK), Director and Head of Planning and Integrated Urbanism, Arup; Saskia Sassen (USA), Robert S. Lynd Professor of Sociology, Member of the Committee on Global Thought, Columbia University; Hans-Rudolf Schalcher (Switzerland), Chair of Planning and Management in Construction, Swiss Federal Institute of Technology (ETH Zurich); Rolf Soiron (Switzerland), Chairman of the Board of Directors, Holcim Ltd; and Enrique Norten (Mexico/USA), Principal and founder, TEN Arquitectos (not pictured above).
“Avoid non-sustainability!”

What is sustainability? The question arises again and again because sustainable construction is rapidly developing. Interview with building materials expert Hansjürg Leibundgut.

Sustainable construction transcends all geographic boundaries, yet varies significantly from region to region. Local challenges differ depending on the state of development of the country. The following talk emphasizes that sustainability cannot be pinned down to a simple universal definition.

**Foundations: What is sustainable construction?**

Hansjürg Leibundgut: There are countless definitions of sustainability. Many are based on the three-pillar model: a project is considered sustainable when it responds equally to economic, ecological, and social factors – which often can be measured only subjectively – and brings these into lasting balance. But we all know that it is often very difficult to achieve balance in practice; we are usually forced to weigh and trade off various interests. But even then we can produce notable achievements, certain aspects of which might even be exemplary. I define sustainability for all buildings as avoiding non-sustainability. One refrains from everything that is not sustainable.

In 2008 you visited MAS Intimates Thurulie in Sri Lanka – a new factory that the Holcim Foundation has presented in a detailed monograph (see article on page 11). To what extent is this building sustainable?

There are always things that one could have done better – that’s normal. We mustn’t measure projects only by their weaknesses, but always judge them within a context of the local possibilities. The quality of this building is much higher than that of all other factories in the region regarding many aspects, including social, economic, and aesthetic. Less basic building material was used than the norm, less steel, less space. Plastics were avoided almost completely. The building is very cleverly designed.

Does the situation in Sri Lanka promote such sustainable buildings?

On one hand, environmental awareness in Sri Lanka is still weak. I had intensive discussions with the project leader; everyone involved in this project is highly
committed and interested – but that is still an exception in Sri Lanka. On the other hand, Sri Lanka offers a good legal and climatic environment for sustainable construction. In other world regions builders must observe completely other standards; for example they are forced to use much more material. And the climatic conditions are of course quite favorable in the tropics.

The factory is situated in an area where nature flourishes with particular vitality. In such a setting, may one treat the environment with a bit less regard than elsewhere?

Definitely. Disruptions that cannot be eliminated within a useful period of time are non-sustainable. Other standards apply when nature is as vital as that in Sri Lanka. The question of sustainability can never be answered independently from the respective situation.

Are the sustainability challenges of industrial buildings different than those of residential or office buildings?

Yes. Industrial buildings normally have a shorter service life than residential or office buildings, so they will usually be converted or demolished sooner. The consequence of this is greater consumption of materials – and that lower-quality materials tend to be used. In industry, buildings are often considered a necessary evil that serve primarily to protect valuable machinery. Everything is very pragmatic. This also affects the quality of the workplaces; for instance, one pays little attention to acoustics, good lighting is provided only where it is really necessary, and so on.

Does this mean industrial buildings have a lot of catching up to do in terms of sustainability?

It depends on what you mean by sustainability. In some cases the construction of a high-quality industrial building would be a disservice to the environment, because perhaps more valuable material would be used, although the building might be torn down after a few years. The fundamental principle is always to consume as little material as possible. But even this criterion must be assessed case by case.

Considering regional and typological differences, is it even feasible to compare buildings in terms of sustainability? Is it perhaps an impossible mission that faces the regional juries for the Holcim Awards – not to mention the global jury?

The task is a little pretentious, but it’s not impossible, as we saw again during the second cycle. The jury members are fully capable of analyzing and evaluating projects in their specific context. But this requires dealing intensively with every single entry. It’s important that all juries similarly weight the various aspects of sustainability. Here a valuable help is the “target issues” with which the Holcim Foundation defines sustainable construction.

To make the diverse criteria of sustainable construction tangible and transparent, the Holcim Foundation and its partner universities defined five so-called “target issues”. The juries use these criteria as measuring sticks to evaluate and compare projects submitted in the Holcim Awards competitions.

Progress – Quantum change and transferability
The project must demonstrate innovation at the forefront of sustainable construction, a quantum leap in comparison to conventional procedures. Breakthroughs and trend-setting approaches, irrespective of scale, must be transferable to a range of other applications.

Planet – Ecological quality and energy conservation
The project must exhibit a sensible use and management of natural resources throughout its life cycle, including operation and maintenance. Long-term environmental concerns, whether pertaining to flows of material or energy, should be an integral part of the built entity.

Prosperity – Economic performance and compatibility
The project must prove to be economically feasible and innovative as to the deployment of financial resources. Funding must promote an economy of means and be compatible with the demands and constraints encountered throughout the construction’s life span.

People – Ethical standards and social equity
The project must adhere to the highest ethical standards and support social equity at all stages of construction, from planning and building processes to long-term impact on the communal fabric. The project is to provide an advanced response vis-à-vis ethical and social responsibility.

Proficiency – Contextual and aesthetic impact
The project must convey a high standard of architectural quality as to the manner in which it addresses its cultural and physical context. With space and form of utmost significance, the construction must have a lasting aesthetic impact on its surrounding environment.
Sustainable construction making an impression

To further stimulate the discussion of sustainable construction, document new achievements, and show future trends, the Holcim Foundation regularly issues publications.

Second Holcim Awards
Sustainable construction is extremely diverse, and this is impressively shown by the book Second Holcim Awards – Sustainable Construction 2008/2009. On 212 pages the publication presents all 52 prize-winning projects of the second competition cycle. Whoever scans the pages of this large-format book will experience a veritable plethora of ideas. From the primeval forest of Uganda to the glacier regions of the Swiss Alps, from rural China to urban Brazil, there are tremendous challenges confronting architects, engineers, and building owners, who are obviously responding with great energy, creativity, and competence. The enormous variety of inspiring concepts and bold approaches makes Second Holcim Awards a publication that can provide important food for thought for everyone interested in the future of our planet.

The heart of the book is a series of reports on all winners of regional Holcim Awards – the 15 projects that qualified to compete for Global Holcim Awards. In detailed conversations, the winners explain how they see sustainable construction and how they want to help achieve a breakthrough for sustainability. Their approaches are as varied as the problems which they tackle. The book, which can be ordered from the Foundation for USD 35, shows in a fascinating and easily understandable way that sustainable construction is a critical instrument in how we organize our future.

Holcim Foundation at a glance
What are the goals of the Holcim Foundation? How does it pursue them? Who does the Foundation work with? And how does it define sustainability? The brochure Holcim Foundation at a glance provides brief answers to such questions. It is an indispensable aid for anyone involved with the Foundation in any way and anyone who would like to quickly learn about the organization. It is a valuable source of information and contains examples showcasing the “target issues” for sustainable construction (see also page 9).

Three new publications designed for building professionals as well as the general public have recently appeared. They can be ordered from the Foundation and can be downloaded from www.holcimfoundation.org/publications
A showcase of exemplary buildings

The monographic series of highly-illustrated booklets share innovative ideas and explain the “target issues” for sustainable construction with tangible examples.

Clothing factory in Sri Lanka
The Holcim Foundation intermittently publishes books on buildings that set standards of sustainability. The latest book in this series introduces a clothing factory at Thulhiriya near the Sri Lankan capital, Colombo. The building, which is also a topic in the interview on page 8, was finished in 2008 and defines a benchmark for the country and the apparel industry.

Passive cooling lowers energy consumption. A hydroelectric plant supplies 90 percent of the power and photovoltaic panels cover the rest. When the final wing is built, the factory will provide an attractive workplace for 1,300 employees.

The publication provides detailed information about the origin, the design, and the construction of the clothing factory, and investigates the special challenges of building sustainably in the tropics.

All titles in the series are available from the Foundation and can be downloaded from www.holcimfoundation.org/publications
Networking to improve urban environments

The Holcim Foundation participates in the “Aedes Network Campus Berlin” – building ties to internationally-acclaimed and pioneering architects.

The Aedes architecture forum in Berlin is a highly successful institution for the professional development of architects worldwide. In the past 30 years it has organized over 300 significant exhibitions associated with the great names of the architectural avant-garde.

Aedes Network Campus Berlin (ANCB) was founded in 2009. The ANCB is a think-tank for practical solutions to the key issues affecting our globalized urban environment. It was opened with a three-day event examining the future of cities including symposiums, exhibitions and lectures.

The Holcim Foundation took part in the event and presented its initiatives to promote sustainable construction. Edward Schwarz also participated in a roundtable discussion and explained how the Awards competition and publications such as “Urban_Trans_Formation” build dialog on how the built environment can contribute to sustainability.

Participating in exchange with like-minded organizations builds awareness of the Holcim Foundation and supports sustainable construction in the scientific field, among experts in the construction sector, business and society.

Global Citizenship Award

Championing sustainable development wins the Holcim Foundation the “sustain’ Magazine Award” 2009.

sustain’ is the only magazine in the United Kingdom dedicated exclusively to sustainability, business, and the built environment. It has been published since 1998 and enjoys an excellent international reputation – thanks in part to the “sustain’ Magazine Award”, which is conferred every year in 18 categories for outstanding performance in sustainability.

For the Holcim Awards competition, the Holcim Foundation won a Global Citizenship Award in the category Business and Society. “The Holcim Awards with its 5,000-some entries from 121 countries makes a contribution to Global Citizenship that in terms of scale and range speaks for itself,” the jury founded its decision.

One jury member commented that significant attributes of the Holcim Awards are its global reach and the interdisciplinary definition of sustainable construction. “Furthermore the prize money is considerable. It also impressed us that the Foundation acts independently from its sponsor Holcim.”

Winning a competition with a competition: In London Miles Watkins, Director of Environmental and Corporate Social Responsibility of Aggregate Industries (right), and Edward Schwarz, General Manager of the Holcim Foundation, receive the prize from Emma Hope, Environmental Consultant at AEA.
Coral in southern Germany

The Holcim Foundation aims to familiarize a broad audience with the concept of sustainability. A good opportunity for this was offered by an exhibition on Mainau Island.

For over 50 years Nobel Prize winners have been meeting every summer in the German city of Lindau on Lake Constance to exchange thoughts on scientific and social questions with hundreds of young researchers. Founder of these “Lindau Nobel Laureate Meetings” was Count Lennart Bernadotte of Wisborg, Sweden. This year the count would have been 100 years old.

On his centennial a large exhibition was organized on the famous flower-island Mainau – Discoveries 2009: Water. In July and August scientific experiments, simulations, and exciting exhibits on the theme of water were presented in 20 spectacular pavilions.

The Holcim Foundation used the occasion to present an especially attractive winner of a Holcim Award: the Philippine project “Concrete substrates for accelerated coral restoration”. In 2005 the project received a Holcim Award Silver for the region Asia Pacific. The project shows a way of regenerating coral reefs. An eight-legged concrete sea star placed underwater – called Acanthasia – serves as an artificial reef in which young corals are planted. The corals flourish on the concrete scaffolding because the low acidity of the material ideally supports their growth.

The gigantic sea star of concrete was used for the first time in the southern Philippines. Within a year the concrete frames were densely grown over.

Studies show that with this system, reefs can be rehabilitated about three times faster than by conventional methods. Acanthasia is therefore a truly sustainable project with ecological, social, and economic benefits – and thus ideally suited to represent the spirit the Holcim Foundation. “Participating in Discoveries 2009: Water presents the theme of sustainable construction in a new dimension through an exciting project that is contributing to the restoring of precious coral reefs,” says Markus Akermann, Holcim CEO and Chairman of the Management Board of the Holcim Foundation.

A half-scale model of the concrete sea star was exhibited in the pavilion. Large display walls illustrated and explained coral reefs – and explained how the gradual destruction can be stopped. The brightly colored and impressive presentation generated broad public interest.
Recognition for Holcim Awards prize winning projects
With full-page advertisements appearing around the world, Holcim expressed its appreciation for the competition winners.

Impressive media response
To give the participants and the interested public an overview of the second cycle and an impression of the work of the global jury, the Holcim Foundation for the first time produced short films.

The four videos are published on the website of the Holcim Foundation (www.holcimawards.org/video) and viewed by a broad audience.

Rolf Soiron, Chairman of Holcim Ltd and member of the global jury of the Holcim Awards, explains in his video why sustainable construction is especially necessary in times of economic difficulty. Hans-Rudolf Schalcher, professor at the ETH Zurich and member of the global jury of the Holcim Awards, in his video gives an overview of the projects in the second cycle, explains the differences with the first cycle, and reports on the work of the jury.

Worldwide media response to the four Global Holcim Awards winning projects and their authors was overwhelming. From the announcement of the results in May until the end of September 2009, over 400 news reports were published in printed and electronic media about the winners of the global Awards.

The competition found particular interest in China, where 120 articles appeared. 40 articles were published in Morocco, home of the gold-winning project. In Vietnam another 30 media reports on the Holcim Awards appeared.
International platform: Focus on www.holcimfoundation.org

The internet is the ideal communication platform for the Holcim Foundation which is constantly expanding and improving its website.

An especially attractive new feature is the geographic overview of the nearly 100 projects that won a prize during the first and second cycle of the Holcim Awards competition. It shows that sustainable construction literally spans the globe.

Anyone who would like to learn more about any Holcim Award-winning project can find an abundance of additional information in the virtual poster gallery – the latest feature on the website of the Holcim Foundation.

A new and significant element of the Holcim Foundation’s website is the “Events Calendar for Sustainable Construction”. Here, universities, NGOs, companies, and all other organizers can publicize their events related to sustainable construction. The Technical Competence Center of the Foundation acts as gatekeeper. Anyone interested can subscribe to an e-mail alert service to be automatically informed of all new entries. The calendar is already seeing heavy use, helping to better interlink the global professional world and to establish the Holcim Foundation as a hub of international knowledge transfer.
How can approaches to the design, fabrication and use of built structures be aligned with the principles of sustainable development?

**Re-inventing construction**
- Reduce CO₂
- With technology to zero emissions
- Play with complexity
- With integral solutions to an economy of means
- Mine the city
- With logistics to circular metabolism
- Stimulate stakeholders
- With incentives to implementation

The Holcim Forum is a three-day conference including workshops and site visits. It is open to academics and professionals from architecture, civil engineering, urban planning, natural and social sciences, as well as representatives from business, politics, administration and civil society.

Program details and registration: [www.holcimforum.org](http://www.holcimforum.org)