

“Communication is the key to change”

To promote sustainable construction at the academic level, one of the first goals of the Foundation was to sponsor an assistant professorship at the Swiss Federal Institute of Technology (ETH Zurich). In August 2006, Holger Wallbaum commenced tenure as Chair in Sustainable Construction.

Foundations: Holger Wallbaum, what does an assistant professor of sustainable construction do?

Holger Wallbaum: I have only been here for a few months, and in this time I have built up the position – there were no structures existing. I have attempted to get an overview of the state of sustainable construction in Switzerland, and by talking with various players I have tried to find out where I can best add genuine value. The assistant professorship lasts 4 years – with an option to extend it another 2. During this time I must establish an international reputation for the chair, so that it will be financed in the future. Research will contribute the most to this reputation, and hence deserves most of my time.

What are you researching?

My chief goal is to increase resource productivity and to develop systems and technologies that will help us build with less material. In the 20th century energy consumption was the main focus of sustainable construc-



Holger Wallbaum, Professor for Sustainable Construction at ETH Zurich: “The construction industry is the decisive lever for promoting sustainability!”

tion. In the meantime the world has grasped that supplies of fossil fuel are finite. Technical development in the energy field is already unbelievably advanced – the only thing missing now is the realization. But when it comes to material resources the picture looks quite different. Here there are no concepts for how to get along with less. Yet materials – like copper and steel – are not available in infinite supply. This fact is reflected in the current explosion of raw material prices. That’s why we must make as much progress in the material consumption field as we have made in the energy field. Part of the solution will be practical concepts for the reuse of materials – recycled concrete, for example.

How important is the building industry to global sustainable development?

The construction industry is the decisive lever for promoting sustainability! In many countries it plays an important role in employment, energy consumption, and GDP. But what is the construction industry actually? One must clearly distinguish among the various players. The picture varies from region to region, from people to people. Sustainable development is not a normative concept; all truths apply only temporarily and only in certain regions.

You are strongly engaged in the global discussion of sustainability. How has the discussion developed in recent years?

In the 1980s and 1990s sustainable development was promoted and advanced primarily by ecologists. The premise was that ecology equals sustainability. Business was not properly included in the discussion and this, of course, greatly slowed the development. In the meantime the fronts between the various stakeholders have been dissolved; now everyone participates in the discussion. I think communication is the key to real change. Initiatives like the Holcim Foundation are very important because they offer the opportunity for communication and for the exchange of interests. And I see the creation of a chair of sustainable construction at the



Holger Wallbaum: "The initiatives of the Holcim Foundation are very important – they offer an opportunity to communicate and exchange interests." (picture taken at Holcim Forum 2004)

ETH Zurich as an important step. If we want to change the world, we have to sensitize the decision-makers of tomorrow – planners, architects, and others. I want to spread the sustainability gene among the students!

We hear news about rapid climate change or other negative developments nearly every day. Is there even time for discussion or gradual sensitizing?

We have no other choice than to progress at the pace that is practicable. Because I am an impatient person, I would of course be happy if we had already achieved more. On the other hand, one can see that some great achievements have been made. The awareness of the process is growing constantly, relevant laws are gradually being passed. I think it's very important that we keep these positive aspects in mind and that we speak not only about the negative developments. I am convinced that we can make progress only if we can show positive ways; fear isolates people. We also haven't achieved much through restrictions. I think we can learn a lot from the success of organic foods – people are buying more food direct from local farms again because these products have many positive qualities and they give consumers a good feeling. That's why when I talk about my work I often use positive attributes

such as "health", "well-being", or "healthier for children."

Does the fact that ETH Zurich has a chair for sustainable construction imply that this discipline is not yet a routine part of things – also not among students and professors?

Some aspects of sustainability have of course been established topics for some time. For example, many of my colleagues have been intensively studying questions of energy consumption. But what has been missing until now is a compilation of all aspects of sustainable construction – and a weighting of these. Sustainable construction can often lead to conflicts of interest. For instance, energy optimization of a building might compromise the environmental, economical or societal performance in some other way. My colleagues are not called on to consider such conflicts; it's my job to consider sustainable construction in its entirety. So I am more of a universal generalist. There are specialists everywhere who know the details much better than I do. I try to bring it all together. Many students and professors have been missing such a holistic approach – and they therefore received me enthusiastically.

Holger Wallbaum

Holger Wallbaum (1967) trained as an industrial mechanic and studied safety engineering and environmental management in Wuppertal, Germany and safety engineering and risk management in Mulhouse, France. In 2002 he completed a Ph.D. in architecture at the University of Hannover. Wallbaum was a project head at the Wuppertal Institute for Climate, Environment and Energy and he taught ecological product design in the field of communication design at BUGH Wuppertal.

Holger Wallbaum was an official delegate at the World Summit for Sustainable Development 2002 in Johannesburg and in the same year he co-founded triple innova GmbH, a company that advises organizations, companies and institutes in the fields of future-oriented business, new technologies, and ecological product design.

On May 31, 2006 the board of ETH Zurich appointed Holger Wallbaum assistant professor for sustainable construction. He began his work at the university in August 2006.