Michael Braungart: A building like a tree, a city like a forest

Isn't it amazing how primitive our buildings are, compared to trees? A tree cleans the air, a tree cleans water and a tree supports life. Each tree is a habitat for at least 200 other species. A tree changes its colors with seasons and shade, a tree makes soil, a tree produces oxygen, and it makes very important chemicals. A tree is not carbon neutral; a tree is carbon positive. How primitive our buildings are compared to that. The indoor air quality is about 3-8 times worse than outdoor urban air. Nothing is designed for indoor use. Why don't we make buildings like trees, cities like forests? Why don't we learn to become beneficial for this planet instead of less bad?

The workshop which was held on the 30th June 2014 was amazing because at the beginning each individual, each participant, was more intelligent than the group. There was more background, more information and more expertise in each person than in the collective group. It was difficult to get all the participants together. But then it became amazingly productive. We could learn from each other, could collect the best information and network in a way that truly supports how to make buildings in the future, how to plan urban communities in the future. It is amazing to see how much information is necessary and how important it is to facilitate such a dialogue, since cultural and social aspects vary drastically in different places of the world. There is no standard answer; no one size fits all.

We learned to listen to each other and the outcome was amazing: learning from each other, far more interesting ideas were generated. Even with a football championship taking place in the background it was amazingly productive. At times, it becomes easy to place too much focus on Holcim because of The Holcim Foundation. But this is not helpful, neither for Holcim, nor for finding real answers to complex problems. If it is not possible to think about all the different options, then a type of Stockholm syndrome is generated: one tries to identify things which are beneficial for the cement industry instead of thinking holistically. Over the course of the two days, it was obvious that more and more participants learned to overcome this hostage syndrome. And that change brought real information and real innovation.

The most relevant aspect from my perspective is the R-128 house by Werner Sobek that attempts to achieve 'zero'. Logically, the next thing in this context is an active house: a house which supports life, a house which is energy positive. When not considered within a historic framework, existing projects can seem fairly primitive. But the start is always primitive.

Outside of this roundtable, traditional sustainability is still dominating the wider discussion: it is still about being less bad, minimizing damage, and reducing energy consumption. For that we have far too many people on this planet. Why don't we have a positive agenda? Why do we want to minimize our carbon footprint, when we could have a beneficial footprint? There are amazing things like life cycle assessment of buildings. But is there life in a building? Is there life in a coca cola bottle? Procedures like this, and in a broader sense religion, legislation, cultural and social habits, are still projecting a negative future. Instead of seeing humans as a burden for this planet, it is time to see them as an opportunity.

When people's existence is questioned, when people say "It is better you are not here," or "could you please minimize your footprint," then people of all cultures of the world become egoistical and greedy in defense. When people feel safe, when they feel accepted, they become generous, they share, and they look for how to support each other in the best way.

“A building like a tree, a city like a forest” is a metaphor for a beneficial footprint. If we can learn to do this, we easily can feed 10 billion people on this planet and begin to develop real material management.

We can make a planet which equal five planets in terms of the mass of energy input. Creating new material management starts at a completely different level of the food chain. By carefully considering algae bacteria, mushrooms and other organisms lower down the food chain as a more integral part of our food production, rather than basing our nutrition on animal proteins which require intensive livestock farming and animal husbandry, we easily could feed 50 billion people on this planet, and thus stop talking about the problem of overpopulation.

Because of debates on fossil fuels, the energy problem is far more present in public discussion than questions of material consumption. But even the energy problem is not a real energy problem: it is rather a mismanagement of carbon. How can people send carbon dioxide in the atmosphere, when only 2,4% of the earth’s crust is out of carbon? How can people use palm oil to make bio diesel and consequently destroy the soil? It is solely a mismanagement of carbon. Carbon dioxide, methane and nitrous oxide, which cause the highest part of the greenhouse effect, are our materials, so we need to learn to manage them properly. In terms of carbon, the most important thing we can do is to rebuild topsoil and to make sure that the soil stays intact since much carbon is in vegetation and most of this is in topsoil. Keeping this in mind, it makes more sense to focus on questions of material over questions

of energy. For example, phosphorus is far more rare than oil. And whereas we will be able to learn how to harvest photons and to build our energy supply on solar energy and renewable resources, phosphorus is almost impossible to replace because it arrives to earth in the form of meteoroids, something that occurs very infrequently. Keeping this in mind it is important to manage materials completely differently.

Changing to a method of practice that creates beneficial footprints in turn allows designers to come up with an architecture that celebrates human life on this planet instead of merely minimizing ecological footprints. It provides young architects and designers with a positive agenda. How can we make things that support life? How can we organize cities that connect people in a completely different way? How can we organize mobility concepts? How can we support biodiversity? How can urban agriculture actually play a key role in feeding people? Ecological agriculture can be far more productive than any type of Monsanto industrialized agriculture. Let's start with a positive agenda. Let's look at a child and say "Welcome to this planet!" instead of "Could you please be less bad".

In this context, the Holcim conference and roundtables in Boston was a very important milestone for an open and positive debate how to celebrate life on this planet and how to make this planet a better place.