

Club of Amsterdam

## the future of **Ecological Architecture**

March 2008

Where: **Netherlands Architecture Institute**, Museumpark 25, 3015 CB **ROTTERDAM**



Ecological Architecture is a subject much in debate now with the **growing consciousness** of global warming, especially since it appears buildings are the first greenhouse gas emitters, before industry, transport and any other sector. The challenge of ecological architecture is a time battle because of the escalating damage due to colossal real estate and urban development, particularly in developing countries and new hot spots such as Dubai and Shanghai. Even though these can also be seen as opportunities, it is most likely that much of what will be built in the near future will dramatically increase our ecological footprint, and unless viable and exiting solutions make some headway, we will continue to exert pressure on our environment with consequences we cannot predict fully but that are obviously not desirable.

The purpose of this event is to demonstrate that there are true "**visions**" out there being tested and experimented that actually develop and enhance our lifestyles instead of simply constraining them. Much of the efforts are concentrated on breaking the pace of building and diminishing consumption, which although necessary as a temporary palliative, in some respect degrade our very appreciated sense of freedom that we have dearly acquired, and worst of all do not compel us to better alternatives.

The stimulus needed should ideally be that there is not only a collective understanding of the imperative, but an ambition that is driven by envy, opening the gate towards a "conscious holistic hedonism" as corner phrased by Niels Peter Flint who founded O2 20 years ago. In other terms, ecological architecture is part of defining **lifestyle 2.0** as much as it is wants to safeguard our planet.

Implying we can construct in symbiosis with nature requires that full size living labs experiment a new understanding of dwelling, one that reflects autonomous neighbourhoods, sustainable in terms of functioning and upgradeability. Let us gather and challenge our notions and ordinary conceptions of what architecture is to lift the issue of the environment to increase our quality of life rather than impoverishing it.

We know this will not stand the test of time and unless people think it is enjoyable as much as it makes sense, tax cuts and education will not be enough.

We propose to focus on ecological architecture from the standpoint of the **self-sustainable neighbourhood**, partly because it sets the problem in urban context, but also allows for new urban design to emerge, even in the countryside, and suburbia will be the main problem in the near future. Also, it is a dimension, which is grounded in reality while allowing space for some dreams and a bit of utopia, and not the least includes industrial partners because of the economies of scale that cannot be achieved by single buildings.

Examples are more and more numerous and beyond looking at ideas, we can debate around the existing good practice performed in places such as Bedzed (UK), or planned in Dongtan (China).

Concept by our moderator ► **Thomas Ugo Ermacora**, Founder and creative director, Etikstudio

► **Malcolm Smith**, Director of Integrated Urbanism, ARUP

Human civilization is undergoing a change unparalleled in history. The way in which we live is being fundamentally questioned as we appreciate the impacts that result and the possible consequences. We are beginning to recognize that we need to re-establish a balanced relationship with the environment. Arup sees this as the beginning of 'living in the ecological age', and through our integrated urbanism projects, particularly the Dongtan eco-city project in Shanghai, we are exploring how we can re-establish living in balance with the environment.

► **Bill Holdsworth**, environmental, architectural and energy engineer

**Design with a global impact**

Ecological design acknowledges that all design has a global impact because of ecosystem connectivity.

In comparison to maintaining a functional integrity of the ecosystem as developed through sustainable actions, ecological design can be seen as environmentally beneficial and productive, a positive contribution to the natural environment. Further ecological design should be a positive act of repair, restoration and renewal of the natural system of the living environment.

The challenge confronting the ecological designer today is to bring a synergy of designing with nature in an environmentally responsible way as well as a positively-contributive way.

► **Thomas Rau**, Director, Rau Architects

**Oneplanetarchitecture**

RAU meets the world in a spirit of care and respect. In aiming for the unique gestalt to suit the location, the people and the times, we engage with nature in a well-considered and conscientious way, striving in each of our designs to create an example of socially and environmentally responsible architecture.

19:00 - 20:00

**Introduction** by our Moderator

► **Thomas Ugo Ermacora**, Founder and creative director, Etikstudio

**Part I:**

► **Malcolm Smith**, Director of Integrated Urbanism, ARUP

► **Bill Holdsworth**, environmental, architectural and energy engineer

**Design with a global impact**

► **Thomas Rau**, Director, Rau Architects

**Oneplanetarchitecture**

20:00 - 20:30

Coffee break with drinks and snacks.

20:30 - 21:15

**Part II:** Open discussion



**Malcolm Smith**

Director of Integrated Urbanism, ARUP

Malcolm joined Arup in 1996 after completing his Masters degree in Architecture at Yale University. Prior to undertaking his masters, Malcolm worked in Australia on a wide range of projects including

tertiary education, buildings, entertainment and arts facilities.

Malcolm leads a wide range of urban design projects both in the United Kingdom and internationally including:

- Dongtan Eco-city. 8400ha sustainable master plan, Shanghai
- Stratford City, the mixed use metropolitan centre in East London that includes the London 2012 Olympic Village
- Northstowe New Town. A new town for 25,000 people in South Cambridgeshire

Malcolm is a visiting tutor at the Bartlett School of Architecture, London and was a visiting professor at Yale University. He is a fellow of the Royal Society of Arts, and an associate of the Royal Australian Institute of Architecture.

[www.arup.com](http://www.arup.com)



### **Bill Holdsworth**

environmental, architectural and energy engineer

Bill Holdsworth is a professional environmental, architectural and energy engineer whose education began on with the tools on the shop floor and established a successful international practice based in St. Albans, England. An innovator of technological design for energy conscious and climatic adaptive architecture, he established a design matrix in 1970 that appraised and codified external and internal environmental impacts upon buildings. His ideas have often been classed as 'before their time', have enabled him to look beyond the concepts of design where the technical considerations of engineering are carefully blended with an awareness of human requirements and aesthetic understanding of what is considered a pleasant and healthy environment. He has been a lecturer, journalist and advised governments and international companies on strategy planning. His books include *Healthy Buildings: a design primer for a living environment* (Longman 1992) and major contributor to *Encyclopaedia of Architectural Technology* (Wiley 2002) During his active life he has also been engaged with theatre, the arts, dance, poetry and politics.



### **Thomas Rau**

Director, Rau Architects

Thomas Rau (Gummersbach 1960) trained in fine art and dance at the Kunstacademie then studied architecture at the RWTH in Aachen. He has worked as an architect in Amsterdam since 1990, and founded RAU here in 1992.

For RAU service is central to architecture. Every building must emerge from interplay between the *genius loci*, the people who are going to use, manage and maintain it, and the possibilities the moment offers. And it should enrich its surroundings - nature *and* culture -, create a pleasant and stimulating working environment and contribute to the way we as human beings treat the earth we live on - *oneplanetarchitecture*.

The structure of RAU its portfolio shows social commitment, and so does the innovative nature of the architectural approach. RAU looks for low-tech solutions to high-tech questions. 'State of the art' is the departure point here. So the headquarters of the World Wide Fund in Zeist (2006) produces more energy than it uses. It is heated by the people who work there, offers shelter to animals and is CO<sub>2</sub> neutral. The next step is a completely autonomous building with a maximum ecological footprint of one: this is to be realized shortly in an office and housing project in Lyon.

[www.rau.nl](http://www.rau.nl)

(photographer Marjolein van Gelder)



### **Thomas Ugo Ermacora**

Founder and creative director, Etikstudio

Founder and creative director for Etikstudio, Ermacora works with a variety of companies to develop sustainable concepts, products and services. Along with a series of entrepreneurial activities in Media and lifestyle as well as technological start-ups, Thomas curates events with the intent of bringing a "debate with outcomes". Amongst those he exhibited "dreams on wheels" on cycling cities in the national design centre of Denmark in 2004. Prior to this he worked as a telecom strategy consultant on the digital divide for Tactis. He holds a degree in Urban Design from the Sorbonne and a bachelor of International Affairs from Northwestern University.

[www.etikstudio.com](http://www.etikstudio.com)