

# URBAN ECOLOGY: PEOPLE, PLACE, PROCESS

## CONFERENCE PROCEEDINGS

ECOCITIES – GERMAN AND DUTCH PROJECTS AND FUTURE VISIONS

Presenter: Rolf Messerschmidt

Organisation: Joachim Eble Architektur, Tuebingen, Germany



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# Ecocities – German and Dutch Projects and Future Visions

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## Overview

Ecocity is an EU-funded research project to investigate a framework for sustainable urban development. The Ecocity project features seven case study sites located in seven European countries. The initiative aims to demonstrate how sustainability objectives might be achieved under different conditions and in a variety of urban situations. Some of the key projects include: 'City of short distances', 'City of minimised land consumption'; and 'City of balanced mixed use', all with the central objective of determining sustainable alternatives to urban sprawl.

In order to translate these features into actions at the planning stage of a city area, modules focusing on energy, transport, water/wastewater or urban climate are useful. These modules form the core of an internet-based toolbox that provides concrete measures, criteria and principles to be considered in the development of an Ecocity. This can be found at [www.netzwerkzeug.de](http://www.netzwerkzeug.de).

The following projects by Joachim Eble Architektur (except Tübingen Südstadt) demonstrate the realisation of sustainable objectives and measures in the integrated planning processes.

## Metropolitan High Density Projects

### 1. Landsberger Allee / Rhinstraße, Berlin

A study relating to an industry and residential housing project

by the architect Daniel Libeskind, links urban planning to building design, with a special focus on urban climate concepts. This development, for example, demonstrates the integration of cold-air corridors with natural ventilation concepts via water surfaces, green areas and ground-heat exchange for the heating and cooling of commercial buildings.

### 2. Prisma, Nuremberg

Part of the urban renewal project Gostenhof-Ost, situated in inner-city Nuremberg, Prisma is a high density, block development. Prisma features mixed-use; large greenhouses that combine a solar energy concept; a rainwater management system and artistic works to promote an urban oasis.

### 3. Landscape Oriented City Extensions, Culemborg

This project is a city extension initiative for the Dutch Ministry of Housing in Utrecht, for a sustainable urban development with spatial planning and environmental protection. It is located in a water conservation district.

Planners worked very sensitively with the landscape and gave consideration to the various water cycles: the rainwater from buildings is siphoned away; the street run-off is treated; and wastewater is used to run a co-operative power plant. These water systems have been integrated into a permaculture landscape with the character of a garden city. Permaculture revolves around the integration of habitat connections, from



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housing and recreation to microclimate issues and agriculture, within a particular area. This case shows a 'city farm', with residents' groups managing and maintaining the landscape structures. Other important sustainability aspects of this development include mixed-use space, energy alternatives, and comprehensive citizens' participation.

#### 4. Inner City Brownfield Projects

##### Südstadt Development, Tübingen, Stuttgart

The main objectives of this development are to create an urban skeleton for the Südstadt, an area dominated by inaccessible terrain. The project will seek to create a high density, neatly packaged, mixed-used urban structure rather than a conventional housing development. The majority of Südstadt homeowners are private builders who have come together to form 'private building co-operatives'. The Südstadt's public spaces, roads and plazas are designed for everyday use and serve as communicative spaces for those who live and work in the area. Road traffic is restricted in the area with vehicles of employees, inhabitants and visitors parked in public neighbourhood garages. To implement this project required the use of a special development procedure (Städtebauliche Entwicklungsmaßnahme). This allows the city to purchase all land for the basic price before development. As a result, the city is able to make plans without consideration of individual owners, and could therefore afford to finance infrastructure and public facilities through the profit it made selling the

new plots. (Source: CD-Compilation by the City of Tübingen, November 2002)

#### 5. Transit Oriented Edge Developments

The premise of the Ecocity model quarter in Tübingen is to prevent urban sprawl by concentrating settlement areas around the station terminals of a newly planned light railway system. The Ecocity site incorporates three areas: brownfield, greenfield and high density. The aim of the initiative is to develop a strategy for resolving the conflict between the minimisation of land consumption and the protection of surrounding environments against the need for new settlement areas. A comprehensive citizen participation process was started with a community planning conference, held prior to the start of the design process. This outcome of this event was an agreement between the general aims of the Ecocity project and the wishes of the local citizens. It led to the development of the final masterplan. This was a totally integrated concept addressing issues such as: transport options including car-free and car-restricted areas; an energy masterplan; water considerations including supporting attractive public spaces as well as taking into account the hydrogeological sensitivity of the greenfield area; the urban climate; and a landscape structure that defines the city edge to prevent further extension in the future. Special focus was applied to working out a balanced solution dealing with the conflict of the objectives 'mixed-use' and 'car-free transport'. For more information, see: [www.ecocityprojects.net](http://www.ecocityprojects.net)

**Organisational Profile: Joachim Eble Architektur**

Joachim Eble Architektur is a medium-sized architecture and urban planning practice in Tübingen, Germany. For almost 20 years, the practice has placed a major focus on architectural theory relating to human ecology, building biology and economic resources. As such, the firm has developed comprehensive knowledge and confidence in developing complex multidisciplinary and integrated planning processes.

Joachim Eble Architektur specialisms include sustainable urban development and energy efficiency; urban climate systems; citizen participation; mobility concepts; landscape reconstruction, and environmentally pleasing agri-urban-border concepts. Other projects include residential housing incorporating solar architecture, healthy materials and regenerative construction systems. Ecological Office Buildings are also a focus, as are life-cycle assessments.

Recent awards include:

Honorary Membership of RIAS - The Royal Incorporation of Architects in Scotland; German Real Estate Award 2003; Trophée Sommet de la Terre et du Batiment 2003, French Building Federation, Paris; and is a nominee for the international MIPIM Award 2004.

**Presenter Profile: Rolf Messerschmidt**

Rolf Messerschmidt is leader of the urban planning team at Joachim Eble Architektur in Tübingen, Germany. He studied architecture and urban planning at the University of Stuttgart, completing his degree in 1999. He currently steers urban planning projects in the Netherlands and Germany, with a focus on sustainable development. Messerschmidt has been involved in large-scale citizen participation projects, including the European Union Research Project Ecocity, and 'econnic', a European network of interdisciplinary partners within the area of sustainable development.

From 2000 to 2001, he was a part-time teaching assistant in urban planning to Professor Bott at the Institute for Urban Planning, University of Stuttgart. Messerschmidt won first prize from the Albert Speer Foundation in 2000 for his diploma work [www.netzwerkzeug.de](http://www.netzwerkzeug.de) – an internet-based toolbox for sustainable urban development. He was also invited by the US National Academy of Engineering and the German Alexander von Humboldt Foundation, to speak at the fifth German American Frontiers of Engineering Symposium in Washington in 2002.

Sust.: The Lighthouse on Sustainability aims to raise awareness of sustainable design in architecture. It was devised by The Lighthouse: Scotland's Centre for Architecture, Design and the City on behalf of the Scottish Executive and in support of the aims of the Policy on Architecture. It is funded by the Sustainable Action Fund.

[www.sust.org](http://www.sust.org)