

# URBAN ECOLOGY: PEOPLE, PLACE, PROCESS

## CONFERENCE PROCEEDINGS

### URBAN ECOLOGY IN EUROPE: AN OVERVIEW

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Organisation: NABU Norwegian Architects for Sustainable Development



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# Urban Ecology in Europe: An Overview

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## Overview

There is a growing interest and understanding that urban development must be designed with the environment and sustainability issues in mind. A fact that is currently leading to some very exciting urban development projects throughout Europe.

As these projects encompass large, urban areas and thousands of homes, workplaces and services, one of the most important issues regarding sustainability is the wide range of planning issues involved. These mean taking into account such issues as urban design, transport infrastructure, heating strategies, and the recycling of rainwater and waste. These developments apply to both new-build and regeneration projects in brownfield industrial sites, such as dockland areas.

Urban ecology projects currently being implemented in central and northern Europe are also very relevant to Scotland. Similarities, for instance, extend to the fact that both areas share a cold climate, plus relevant social and cultural factors. Building methods and local government structures are also comparative. There are, however, some differences, which are mapped out below:

The physical solutions: architecture – construction, energy systems, drainage etc – are dependent on such factors as local microclimate conditions. However, experience dictates that

only minor adaptations to existing systems and technologies are necessary to facilitate their use in other contexts.

The processes: these vary slightly according to existing traditions. In Germany and the Netherlands, for instance, community involvement is well developed; while in Germany and Sweden, public planning processes play a central role. Developer agreements and partnerships, meanwhile, remain important factors in the UK and Scandinavia.

The tools: methods for measuring results (benchmarking) are, in the main, directly transferable, and current developments in this field are leading to universal environmental-evaluation systems.



Photography: Renzo Mazzolini

### **Three facets of sustainability**

While many still regard sustainable development as affecting, on the whole, issues such as energy use, pollution and waste, these, in fact, represent the physical components of sustainability. More recently, however, people are beginning to understand the bigger picture and the most important issues affecting sustainability. In order to be wholly sustainable, three factors should always be considered: environment, economy and society.

A preference for environmental, or 'green' technology, does not create a sustainable society in itself. While a good ecological profile may underpin a project, sustainable urban development must also be socially and economically robust. Socially, because communities benefit from richness and variety in their environment, though this focus is often neglected as a prime factor. Quality in the urban environment leads to long-term social gains: certain projects have involved a high degree of community involvement, for instance, a factor that can have a distinctly positive effect in addressing sustainable social aims.

Also, environmentally friendly technology is often not as costly as perceived. Solutions for different cycles are integrated and so reinforce one another, creating considerable savings. Similarly, life-cycle costs are often distinctly lower than those relating to conventional projects. There are presently new

solutions being introduced to the market, which have proved just as cost-effective as conventional means.

This, therefore, diminishes the "can't be done here" attitude with which new innovations are all too easily often met. Experience has shown that the factors that often prevent the successful implementation of such projects, are more usually not practical problems, but as a result of poor communication and organisation.

## **Benchmarking Sustainability: the Value Map**

If we are to successfully develop buildings and cities that fulfil sustainable goals, we must develop new criteria and tools to define, plan and evaluate projects. In the past few years there has been a profusion of proposals presenting eco-profile-systems for evaluating environmental construction. These methods vary widely, yet a common factor is that many of them address environment issues only. They are, in fact, failing to see the bigger picture and therefore suffer from such a limited viewpoint.

It is becoming universally accepted that sustainable design should incorporate ecological, economic and social factors. These considerations are often illustrated as three interconnected circles entitled as environment, economy and society. If we are to achieve a more complete picture of sustainability, we need tools that address and evaluate all three areas.

In construction, benchmarking refers to the process of defining standard performance levels, allowing the industry to compare projects. Common criteria might include functional aspects such as cost-per-square-metre, and energy standards. A new development however, is that each requirement is now considered within the overall three-point goal of sustainability.

Though it is difficult to define sustainability exactly, in the broad sense it applies to the implementation of long-term, positive, human and economic developments that work to sustain the capacity of the earth's ecosystems.

Other countries' initiatives, such as the B001 urban ecology project in Malmö (Emelie Stjernhav /Klas Tham), have endeavoured to include non-physical dimensions of sustainability in evaluation methods. This, however, is still viewed as an unsystematic approach. This inspired me to develop the NABU Value Map on the basis of holistic analysis that systematically addresses all three dimensions of sustainability. By presenting the results in graph form, sustainability is, for the first time, profiled as an integrated whole.

In this pioneering Value Map system, ecology, economy and society are defined via eight parameters. However, it should be noted that these are provisional figures only, and can vary according to context. Benchmarks are then set for each parameter. The results are then presented as a whole picture in the form of a circular Value Map.

The possibilities surrounding sustainability issues are

boundless and its profile will change over time. The sustainability Value Map, then, is not a concept model, but can be updated and used as a concrete tool to compare projects.

Many parameters are unquantified – they are qualitative. Others, meanwhile, cannot be evaluated prior to building construction and use. Factors such as economic and social sustainability, therefore, need to be evaluated through qualitative experience and user evaluation.

The projects discussed during this conference reveal a fresh and dynamic approach to both architecture and urbanism. And while they may not be deemed successful in all respects, in terms of lessons learned, they are undoubtedly equally significant.

**Organisation Profile: NABU - Norwegian Architects For Sustainable Development**

NABU was established by the National Association of Norwegian Architects in 1994 as a resource centre for sustainable planning and design. Since then it has maintained a high professional and public profile within Europe, through a variety of projects. Other endeavours include seminars, research reports, consultancy, workshops, and publications. Clients include government bodies, local authorities, housing associations and private sector firms. NABU is almost wholly self-financing through its involvement in these commissions. Central to NABU's remit is a multidisciplinary approach.

For further information, please go to:

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**Personal Profile: Chris Butters**

Chris Butters was born in South Africa in 1950 and is currently resident in Norway. He graduated with a BA in Literature from Stellenbosch in 1970, before going on to gain an Architect DPLG in Montpellier in 1978, and a Diploma in Energy Planning in Oslo in 1979. Butters has served within the areas of environmental architecture, energy and ecology for over 25 years, in the capacities of practising architect, researcher and lecturer. He is also former director of the UIA Work Program, 'The Road from Rio – Sustainable Development of the Built Environment', and spent a decade working in Bhutan as a consultant architect for schools and hospitals. Butters is currently Project Leader at NABU (Norwegian Architects for Sustainable Development), and Course Director of Energy Planning and Sustainable Development at the University of Oslo. He is a published author.

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.

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