

Dimensions of housing and urban sustainability

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Sustainability has been a topic of discussion at ENHR¹ conferences since 2000. At our first workshop in Gävle, Sweden, the discussion dealt with the problems of definition, a multidisciplinary approach, and the convergence among papers. Such problems might discourage researchers from using the “all-embracing” and perhaps ambiguous concept of sustainability. Researchers and practitioners alike might question the transferability of the concept into practical applications. The ENHR working group on Housing and Urban Sustainability takes the view that the richness and ambiguity of the concept make it not only inspiring but also a constructive basis for housing research. Furthermore, whether we like it or not, the concept is established; reference to sustainability is unavoidable in any discussion of housing and urban development. Thus, we agree completely with the views of Becker et al. (1999):

In particular, new ways have to be developed for studying both the complex interactions between society and nature and the connection between the symbolic and material dimensions of social practices more appropriately. These topics provide crucial sites of investigation for problem-oriented approaches to sustainability.

We therefore decided to hold a workshop at the 2002 Vienna conference stressing the importance of complementarity among different research approaches. This formed the starting point for the present special issue. Out of the 18 papers dealing with housing and urban sustainability, five were selected for inclusion here; these five represent the diversity of research to which such a broad concept can lead. One more paper has been added from the last conference, which was held in Tirana in 2003.

Our aim in compiling this special issue was to give examples of how sustainability is understood in the scientific arena. Research on this topic takes place within a wide range of disciplines, notably architecture, building

technology, urban planning, geography, economics, anthropology and sociology. The literature on sustainability covers a range of approaches and perspectives – from a general and theoretical analysis to specific studies of how sustainability can be measured or evaluated. The concept has also been applied in diverse geographical contexts and at different levels of urban structure.

Based on the definition in the Brundtland report, sustainable development is generally understood as having economic, socio-cultural and environmental dimensions. This triangular approach could be enhanced by adding “governance” as a fourth pillar. Governance relates to the cooperation, partnerships and participation of different actors in the process of “sustainable” housing and urban development. It plays an important role in the formulation, implementation and evaluation of housing and urban policies, instruments, programmes and individual projects. According to Priemus (1999), sustainable urban development includes a multitude of actors such as local politicians, civil servants, companies and employees and residents/consumers. To implement a sustainable urban strategy, those actors must be involved. They must be drawn into the sustainability effort; this means sharing responsibilities in investments that are not directly linked to private interests, mainly because the assets are spread diffusely.

The sustainability concept and its diverse research dimensions in the housing and urban field may be considered as an analytical framework in itself. As such, it may serve as a research perspective or a normative background for interpretation. Nowadays, research on sustainability is seen as an empirical confluence of areas, flows and actions; these are shifting from general considerations to a focus on processes defined by the different dimensions of sustainable development.

Understanding housing and urban sustainability as a process rather than a product implies that the concept has a temporal dimension. Sustainability is usually associated with the future and a concern with coming generations. However, past and present actions determine what can be expected in the future. Our actions of today influence the situation of tomorrow. As stated at The Sustainable City Conference held in Rio de Janeiro in 2000:

The concept of sustainability as applied to a city is the ability of the urban area and its region to continue to function at levels of quality of life desired by the community without restricting the options available to the present and future generations and causing adverse impacts inside and outside the urban boundary.

Different perceptions of time may have various implications for sustainability as a policy discourse. The question arises as to whether the sustainability

discourse itself may be seen as a by-product of relative affluence in post-industrial economies.

Research in the field of housing and urban sustainability also encompasses studies of cultural diversity. Inheritance, habits and tradition, along with different ways of living, provide the social framework in which sustainability should be analysed. The universal and commonly accepted standards proposed for improving sustainability should be grounded in cultural perspectives to ensure a holistic approach.

Nowadays, sustainability is an explicit goal in public bodies' action plans. The agendas set by various tiers of government include sustainability in the overall goal of achieving better quality of life.² Indicators are important tools in this connection, both in the planning and development process and as evaluation tools. Indicators support the accumulation of knowledge on sustainability from the global to the local scale and are as such research fields in their own right.

The articles in this special issue may be seen as contributing to the shift in research within this field from general considerations to particular processes defined by economic, environmental and societal constraints. The papers represent a variety of approaches to urban and housing sustainability: policy issues (Astleithner), urban planning (Bontje), culture and sense of place (Hargreaves), and restructuring the built environment (Tosics). Under the heading of Policy and Practice, one contribution deals with ecological planning (Holden) and another with sustainable construction (Klunder).

The paper by Astleithner et al. analyses the concept of sustainable development, the production of sustainable indicators, and the relationship with institutions in the light of two case studies (a regeneration project in London and Vienna's climate protection programme). Different perceptions of time may have various implications for sustainability as a policy discourse. One question is the extent to which the sustainability discourse itself may be seen as a by-product of the relative affluence in post-industrial economies. The nature of institutions of governance is shaping the use and development of sustainability indicators: the development and use of indicators strongly depends on the specific institutions of local political and administrative cultures. The modernisation of the public sector in London allows the introduction of indicators as a way for the central government to control local government. Meanwhile, existing institutional arrangements of actors and prevailing norms and values have constrained the innovations that sustainable indicators offer.

Bontje's paper applies the sustainable development concept to the regional arena evaluating the potential of and threats to sustainable development under the new dynamics of urban form. The distribution of employment opportu-

nities as a key reason for moving is analysed, with particular attention to the development of new employment centres outside the traditional CBD. Bontje's research is focused on office parks located in the metropolitan periphery; selected cases were examined to determine the extent to which their relations could be called sustainable. The results of two case studies located within the Randstad (the Netherlands) show that new employment concentrations outside the traditional city centre are not necessarily counterproductive to a more sustainable development of metropolitan regions in Europe.

Hargreaves explores the continuities between "place" and "interest" in constructing a more satisfying environment for housing development. Inheritance, habits and tradition – in combination with different ways of living – provide the social framework in which sustainability should be analysed. Using ethnographic data from Balmedie, Scotland, the author suggests that form and function in residential development would be improved by taking an adaptive approach to process and significant features in order to build communities of place that are inherently more sustainable. Sustainable human settlements should provide a sense of belonging, ownership and identity. Thus, the authorities could develop a more sustainable environment by recognising and enhancing local features of significance to the community.

Tosics elaborates on several aspects touched upon in other papers, such as the environmental and spatial properties of housing, and connects them with policies for housing and urban development. He stresses the importance of housing as a means to achieve sustainable urban development. Several examples of urban development are discussed, with special emphasis on Eastern and Central European countries. One of the key problems to be solved under a comprehensive sustainable approach is how to deal with large housing estates. Some recommendations are made on how to involve public sector policies and promote cooperation between actors.

Holden links household consumption patterns to physical urban planning in order to obtain the knowledge needed for the discussions about principles and practices for sustainable urban development. Calculations on "ecological footprints" created by household consumption under different physical/structural conditions allow him to establish a correlation between environmentally harmful consumption and urban size, density and distance to the city centre. His findings support the preference for a number of smaller compact cities and towns rather than a few large or mega cities. Existing large cities should be re-oriented through physical urban planning to the creation of small towns within large towns.

Klunder's work evaluates the search for the most eco-efficient strategies for sustainable housing construction. The combination of three dimensions of sustainability – diversity of areas, sustained use of resources and sustained involvement of actors; in short, areas, flows and actors – generates a theoret-

ical framework of analysis. At the same time, this combination is applied to the search for a sustainable and liveable built environment from a technical perspective. Priorities for construction have been defined in terms of environmental impact. The units of analysis are strategies instead of measures of sustainable construction. On the basis of calculations utilising the Dutch Eco-Quantum, seven strategies to improve the environmental performance of houses may be distinguished. The importance ascribed to each environmental impact strongly affects the ultimate choice of one or more strategies for sustainable construction.

The concept of sustainability is here to stay. It is ingrained in the debate on housing and urban development and should therefore be of great concern to both researchers and practitioners. The diversity and magnitude of approaches towards sustainability should not be seen as a hindrance to fruitful communication and discussion. Rather, it should be seen as an essential basis for a multidisciplinary understanding among the actors in this field. Our hope is that the papers in the present issue will contribute to this understanding.