

Plus Project: The Contribution of 'Sustainable' New Developments to Sustainable Lifestyles: an evaluation of schemes in the UK

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The Research Project: an introduction

In the UK, across Europe and in the USA a growing number of developments are being built according to 'sustainability principles'. These developments are usually flagship or demonstration projects that exhibit the latest thinking in terms of built form and sustainable technologies (e.g. BedZed in the UK , Bo01 in Sweden). But having the 'right' forms, layouts, densities, services, infrastructure and technologies in place does not necessarily mean that sustainable outcomes will be achieved. Critically, *results will depend on the actions of people living, working and enjoying their leisure time in that environment*. For example, public transport infrastructure is only sustainable if it actually leads to a modal shift away from the car, and energy efficient buildings are only beneficial if they encourage end users to conserve power.

The sustainability of certain physical aspects of the built environment such as density, compactness and design have been the subject of research (van Diepen, 2000; Williams, 2000; Williams et al., 2000; Carmona et al., 2001) . In places these studies cast doubts on the link between built form and end user behaviour, and this suggests a need for further research. Other evaluations have concentrated on the 'inputs' which make up a sustainable built environment (Anderson and Howard, 2000; Levett, 2000; Rao et al., 2000). But, so far few studies have concentrated on behaviour or lifestyles associated with sustainable urban developments.

Research Question

This project fills this gap in knowledge by answering the following question: Do sustainable urban environments engender sustainable behaviour and lifestyles, and if not why not?

Research Methodology

The project uses case studies of 12 developments in the UK which have, to varying degrees, been described by their developers as sustainable. Each development is either a housing scheme or a mixed-use scheme that includes some housing. The developments have been occupied for a minimum of two years. In the case studies, the behaviour of residents is assessed and correlated with the physical features of the development. Residents' behaviour is determined via a questionnaire administered to homes which asks about current actions in a number of key areas, such as travel and energy use. The questionnaire is administered to all households in the developments, except for large schemes (over 100 homes) where a 50% sample is used. The physical features of the developments are assessed using a sustainability checklist which lists all the features that could potentially support sustainable behaviour and, potentially, be provided in a scheme. Researchers will complete a checklist for

each development by analysing architectural plans and drawings, and undertaking site surveys. The results of the questionnaire and the checklist will be analysed using SPSS to demonstrate the nature of the relationships between the physical features and behaviour.

Outputs from the Research

In terms of knowledge generation the research will:

- Demonstrate whether or not current thinking on what constitutes sustainable urban form is valid when measured in terms of behaviour.
- Identify constraints or problems experienced by end users that are associated with the use of sustainable forms, technologies, infrastructure and systems.
- Provide information which can be translated into design guidance and recommendations for practitioners such as planners, architects and urban designers.

The findings will be disseminated to relevant professions and those involved in the production of the case study schemes through approximately 15 professional workshops at the end of the project. The research will also be disseminated in academic journals, conference papers and a good practice booklet.

Project Timetable

The research began in October 2003. The literature review has been completed, and potential case studies identified. The fieldwork will commence this summer (2005). Project completion is October 2007.

References

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