

## **Implementing principles of sustainable development: the role of partnership and collaboration in the design and construction of a new housing development at Upton, Northampton, UK.**

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### **ABSTRACT**

The urban-fringe development at Upton, Northampton, is shown to illustrate the implementation of current best practice when following principles of sustainable development and has provided an important case study for monitoring and research. A key issue for the research group was to understand how the concepts of sustainable development were understood, transposed into initial plans, designs and the consultation process. Major players were involved in taking innovative and conceptual ideas for the Upton development and transferring these ideas into reality. These people were interviewed and they recounted their part in the process, expressed their perceptions of the barriers and enabling factors that allow people from a diverse range of disciplines and perceptions to collaborate and contribute to the overall plan. This paper takes an overview of these interviews and discusses the role of partnership development, entrepreneurship characteristics and willingness to take a leap into uncharted urban planning territory.

**Key words:** Sustainable development, urban planning, partnership development, multi-skilled collaboration.

## **1. PRACTICAL APPLICATION OF SUSTAINABLE DEVELOPMENT POLICIES**

UK Government policies on sustainable development have developed rapidly since agreements were made at the Earth Summit at Rio de Janeiro in 1992; with a proliferation of guidance notes, policy consultation, publications and planning reform. Increasingly, there has been more emphasis on multi-skilled collaborative planning and partnership delivery mechanisms (for example ODPM, 1999; ODPM, 2003a; ODPM, 2004; CABE 2005a). Changes in policy and planning guidance have often resulted in local and/or regional and mainly professional partnership groupings. Sometimes referred to as 'quangos' or 'talking shops', these partnerships are can be perceived as costly and ineffectual (Raco, 2000). The interpretation of policy guidance is open to scrutiny and many would like to see multi-skilled collaboration and partnership development as a way to deliver or 'make real' the ideals and concepts that lay behind the theoretical utopia of sustainable development. A major obstacle to examining the effectiveness of policy, or how policies are interpreted and acted upon, is that many sustainable development initiatives that aim to make a real impact on economic, social and environmental issues are local and fragmented with a diverse range of objectives. A research group at the University of Northampton are currently researching and monitoring a new housing development in Upton, Northampton, UK, that has incorporated examples of best practice in planning, urban design and environmental management (Jackson *et al.*, 2006). This paper examines the design process and skills of key partners used to turn principles of sustainable development into best practice at a local scale that could also be applicable to other initiatives elsewhere.

## **2. RESEARCH METHOD**

Funded by an East Midlands HIRF Regional Fellowship, this research set out to map the formation of the vision for the Upton urban extension and examine partnership and collaboration. Interviews were designed to capture the major influences, partnership development and collaboration between a multi-skilled team, the local communities and businesses. A narrative approach was used to interview participants. Hampton (2005) found that narration allowed participants 'to have an opportunity to speak and be heard'. Pawson (2002) recommended that to perform this type of evaluation research, capturing the narrations of interviewees enables the researcher to obtain a holistic view of the experiences of the participants. Twelve people were interviewed in 2006, ten of whom were professionals who had an immediate involvement with the planning of the Upton development. They represented a wide range of disciplines, professions and personal experiences. The two remaining participants were semi-retired professionals who represented local communities. All had participated in developing practical applications of the concepts around the principles of sustainable development.

### 3. MAJOR INFLUENCES FOR THE UPTON VISION

The time at which participants became involved with the Upton project was found to be influential upon how the respondents felt about implementing government policy. The Northamptonshire County Structure Plan (NCC, 1985) and the Local Plan in 1989 (CNT, 1989) warned local residents that a large area (870ha) to the west of the town of Northampton was earmarked for major urban extension and development of strategic economic centres (NBC, 1994). Although an outline planning consent was obtained in 2000, the major landowner, English Partnerships (EP), no longer wanted to develop this area as contemporary cul-de-sacs and car dependant urban form (see: Ford, 1999; Carmona, *et al.*, 2003). A team of multi-skilled professionals were brought together to work collaboratively, bringing with them expertise from the following professional areas:

Architecture;  
Business analysis;  
Community planning;  
Construction;  
Development planning and control;  
Ecology and environmental management;  
Engineering;  
Geography;  
Landscape architecture;  
Project management;  
Urban design;  
Water resource management.

Respondents noted that educational experiences, attending conferences, keeping up to date and researching new advances in their own disciplines, was not only part of their own professional practice but helped to incorporate innovation to the Upton vision. Awareness of how government policy was changing, particularly responding to the agreements made at the Earth Summit in 1992, meant that many could see or predict what the future requirements for sustainable development would be. Reflecting back to the time when the vision of Upton was being conceived, respondents referred to:

- PPG3 Housing (DETR, 2000a), (recently replaced with PPS3 (CLG, 2006a)),
- PPG23 Planning and pollution control (DoE, 1994) (under review),
- PPG25: Development and flood risk (ODPM, 2001) (recently replaced with PPS25 (CLG, 2006b)),
- PPG17: Planning for open space, sport and recreation (ODPM, 2002),
- various wildlife and countryside polices and European Directives.

In some cases, interviewees noted that the process of developing a vision for Upton, informed subsequent government policies and they felt that they were “ahead of the game” and “going out on a limb”. A representative from EP said that their major role

was to apply policy for government and that there is a “huge commitment to delivering the sustainable communities policy”. However, they also emphasised that policy “needs to be pragmatic” and deliverable and that practitioners within EP have a “feedback loop to inform policy makers what is achievable or not”.

English Partnerships and The Prince’s Foundation introduced new and revised concepts of urban design to Upton, to create a ‘people’ friendly urban environment which encourages pedestrian access, public transport and cycling, whilst reducing the need to use the car (Newman and Kenworthy, 1996), based on principles of ‘good urban design’ (See: Bentley *et al.*, 1985; Urban Task Force, 1999; DETR and CABI, 2000; The Prince’s Foundation, 2007). Those that favoured the ‘New Urbanist’, ‘Urban Renaissance’ and ‘New Urbanism’ ideals, were all rethinking the urban space in which people live, meet and where children could play and introducing ‘traditional’ values of safety and quality of life in the private and public realm (e.g. Carmona, 1997, 2001; ODPM, 1998; DETR 2000b; Alexander, 2004). There were concerns about certain past developments and how they failed to provide safe and liveable communities to live in. Some housing estates in Northampton are recognised as ‘problem’ areas with high density social housing and poor community facilities. The development at Upton was planned with ‘pepper-pot’ dispersion of social and affordable housing. In addition to the quality of designs, architecture and building method, a range of environmental management issues were also considered. Environmental issues were not only considered within development but also in the quality of housing to be constructed at Upton. The Building Research Establishment (BRE) Ecohome standards initiative was adopted as a way forward to reduce the ecological foot print of the construction of homes and to enable residents, minimise their resource demands.

A design code was developed for Upton (CABI, *et al.* 2005b) and interviewees referred the Essex Design Guide (EDG) as an example of adding quality to urban design. Published in 1997, Essex County Council provided a document that aimed to improve the quality of urban development (Essex County Council, 2006). The EDG and the Urban Design Compendium (Llewelyn-Davies, 2000), provided examples of how the management of design-detail and quality of very large developments could be managed with the use of Design Codes. International and national examples of best practice were referred to by the interviewees, these included: the “New Urbanism” movement for urban design in the USA, sustainable neighbourhoods and participatory planning from Australia (e.g. Morris, 1993) and water resource management from Scotland (e.g. Jones and Macdonald, 2007). Two recent housing developments at Poundbury, in Dorset (The Duchy of Cornwall, 2007) and Cambourne in Cambridgeshire were mentioned (Cambourne, 2007). These developments had applied some of the ‘new’ urban design principles. In the case of Cambourne, a method of managing rain water or urban run-off, known as Sustainable Urban Drainage Systems (SUDS), was installed. The potential conflict between new

development and flood risk management was an issue in Northampton, a particularly after a major flood event during Easter 1998. Respondents emphasised that flooding was a significant cause for concern within the local community, particularly those living in the centre of Northampton where flooding had occurred in the past: these vulnerable locations were downstream of the planned urban extension.

Another major concern locally was the impact of additional housing on existing traffic congestion in the area and that the major road infrastructure adjacent to the development consisted of fast moving traffic on a dual carriage way. Some experts were restricted by current regulations and guidance; for example Highways engineers refer to Design Bulletin 32 (ODPM, 1998), which was thought to be too inflexible. In response to these concerns and recommendations called for in 'Better Streets, Better Places (ODPM, 2003c), the 'Manual for Streets' is to be published in March 2007 (DfT and ODPM, 2005). This was referred to during an interview as an innovative step forward that would help highways engineers to think differently about street planning and urban design in the future.

Overall, interviewees felt that they were reacting against the "modernist approach" or "rubber stamping" developments and the tendency to apply the "same mould everywhere". As English Partnerships were the major landowner and were co-ordinating this initiative, there was a willingness to try out a new approach. As a multi-skilled team, respondents felt that they could provide a site that demonstrated the practical application of sustainable development principles for both the public and the construction industry.

#### **4. COLLABORATION, PARTNERSHIP AND COMMUNITY PLANNING**

In order to address the sustainability agenda, solutions to economic, social and environmental issues should be sought (ODPM, 2003c). A community planning event, referred to as an 'Enquiry by Design' (EBD), was piloted as part of English Partnership's 'Sustainable Urban Extensions' at Upton, Northampton and in Basildon (The Prince's Foundation *et al.*, 2000). It was used as a method to bring new concepts on urban design, sustainability and environmental management to the local community. The consultants EDAW were commissioned to run the EBD event for Upton and co-ordinate the interdisciplinary team. An EBD is similar to a charrette; described by Lennertz (2003) as "*a multi-day planning event where professionals and practitioners create a design plan that reflects the input of stakeholders*". The emphasis is on collaborative planning and the development of a shared vision (Countryside Agency, 2001), where designers, architects and a range of experts work on design outlines and details simultaneously along side the planning meetings. Visualisations are quickly drawn, issues are raised and solutions are discussed (NCI, 2004, 2006). These events were deemed by Fadeeva (2004) as comparatively cost and resource effective and a processes that reduces the risk of dissension, disaffection, disengagement. Fadeeva (2004) proposed that collaborative planning

may find 'mutually acceptable solutions' to complex environmental problems but also warns that potentially successful environmental outcomes could not be guaranteed: as many may opt for 'no-regrets' or easily obtainable options and avoid un-tested ideas or controversial issues .

Roseland (2000) advised that for "*meaningful participation, consensus building and shared decision making*", patience, transparency and open access to information and resources are required. Issues of potential conflict and strong opinions should be openly aired and discussed, to enable an exchange of information and inclusion of expert opinion: creating a forum to negotiate a consensus for informed decision making (Countryside Agency 2001, ODPM 2003c).

Examples of reflections of the interviewees about the Enquiry by Design experience are presented in Table 1. Overall, the impression was that the EBD was time and resource intensive. They prepared technical briefs, attended meetings, facilitated fact finding and research; all of which required a high level of commitment from each team member and their respective employers. However, there were also comments that reflected pride, satisfaction and a feeling that they had been part of something worthwhile and pioneering.

Other interviewees also valued the shared experiences they had with other participants: a shared learning experience and an agreed understanding of the issues, constraints and the possibilities; "I think, certainly at the time many people fully realised how important Upton was, not only for it being a new housing development for Northampton but also in terms of it breaking new ground in the way that people worked together; it was obviously a very interesting learning experience: a disparate group of people coming together in terms of learning how each other worked and what each other's priorities were".

A rare negative comment was the concern over the speed in which the master plan was created: a week of EBD, compared to the traditional planning and control mechanisms. There was a concern that "things were set in stone" at the end of the process. However, the majority of the interviewees were still excited and inspired by the outcomes of the EDB: nearly six years later,

Some have continued with their involvement with the Upton development. Shortly after the EBD, a technical working group continued to meet and contribute to the development of Upton Design Code. The working group continues to meet regularly as the Upton development progresses through the construction phase. The two local representatives interviewed were invited to join a steering group and still continue to scrutinise the decision making process whilst plans are being implemented.

<b>Description</b>	"it was about 'what about if we try this; it was a week of bouncing ideas off different people ... it was a very intense bonding process"
	"if you put a blank piece of paper up, people can't react"
	"it was a process of sketching ideas that enabled people to respond"
	"heated discussions, technical limitations, why ideas would or would not work: ideas were thrashed out"
	"we had innovative engineers and input from local knowledge"
	"it is quite a forceful process where we are coming in as experts in particular fields and covering all the bases against, not just local people but all the disciplines as well and try and accommodate a sensible balance, respond to advice, technical issues. People have to provide hard information, technical briefings. The urban designer, someone who understands the issues (an expert generalist) leads the process and is responsible for putting it all together".
<b>Instruction</b>	"you need to build a common language, illustrate ideas, explain the process and principles with images and free hand drawings and talking, it is communicating: you are dealing with complex issues"
	"the expertise to do this is not always available, you need to make sure enough preparation has been done beforehand, all developments need to be taken more seriously"
	[you need ] "the ability to listen to other points of view, the pro's and con's"
<b>Evaluation</b>	"it did succeed in the end, we got as many experts there as we could who made authoritative contributions and responded to questions, they were able to make it clear, so people were more willing to accept new ideas and concepts".
	"by bringing people together with different expertise, people begin to see the range of implications; it is to showcase the key issues and how we can tackle them without being shoehorned into a kind of NIMBYism"
	"people were appreciative of the fact that they were listened to" "we learned from them to achieve a better solution"
	"you get these hidden gems that suddenly come out, I love finding out how much people know about stuff and their knowledge suddenly becomes valued; using skills to turn everyone into creative individuals – inspirational"
	"another aspect was the absolute determination it will happen – we wanted good quality – we didn't want to let people down"
	"I suppose what EBD did was it broke down barriers. It gave the opportunity for forums, for people to express their views and opinions, not only from a professional point of view but from the lay person's point of view"
<b>Result</b>	"it was exciting, quite infectious when you get a lot of people together saying 'we can do this, this can happen'"
	"because you are covering so many issues you are working holistically, that is fundamental, you are working from the incredibly small detailed scale to issues of regional importance, it the multitude of scales based on collective intelligence and common sensibility of people"
	"by the end of the week ideas had crystallised into a sketch plan"

**Table 1 Responses and reflections of interviewees after the Enquiry by Design for Upton.**

## 5. RESPONSES TO PARTNERSHIP AND COLLABORATION

Patel (2006) discussed the roles and responsibilities of professionals during participatory planning and recognised that each would have their own stand point and values. One possible barrier to effective partnership is if individuals choose to stick to 'known' disciplines or safe zones in which they are knowledgeable. Respondents in this research observed that only on very few occasions did someone become protective of their disciplinary boundaries and that overall, there was a general feeling that everyone wanted to seek the best vision for Upton. Respondents noted that there was a willingness to "push the boundaries" and seek "new horizons" for urban design, water resource management, energy efficiency, biodiversity, landscape ecology and sustainability.

The multi-disciplinary team and local people informed each other, discussed innovations, new concepts and technologies: they repeatedly acknowledged an educational process. As each person shared and exchanged knowledge, professional relationships and friendships developed. Accumulated understanding and the building of formal and informal networks of communication, help to bond people together to seek solutions. Roseland (2000) acknowledged the importance of these mechanisms which assist in building social capital: where real relationships between people are equally important when implementing sustainable development. He warns that collaborative processes may not resolve all concerns and issues but it plays a vital part in reducing conflict, opening dialogue and reaching outcomes that are mutually acceptable.

Petts *et al.* (2007) drew upon the experiences of ESRC researchers to evaluate conditions in which successful interdisciplinary activity could be fostered. They considered mutual trust as a major contributing factor. Trust was mentioned by several interviewees from this research, not only a trust in the expertise of individuals but also trust that enabled questions and issues to be openly and honestly discussed:

"absolutely, educate each other and it is amazing how people who once had a relatively specialist but relatively narrow skill are now much more capable of putting that into the context of other people's concerns and it shows that it is not that difficult to do".

"it was a good group and we had good working relations, very open, and trusting; because somebody said something you did not like, you did not exclude them or whatever, there was a lot of information sharing".

"I think it was just because we felt comfortable with each other to say 'stop, what are you talking about?' or 'which part of policy are you talking about?' or 'how does that part of the SUDS work? I do not understand".



Trust and honesty could be an indicator of mutual respect and effective collaborative interactions. A major question that arises from the findings of this research is whether an educational process is a necessary and integral part of forming interdisciplinary collaboration. Adaptive learning has been highlighted as an important process in education. In the realm of urban planning, Reed *et al.* (2006) recommend that adaptive learning requires experts to synthesise local knowledge through participatory processes. Experts should communicate technical issues clearly and listen to the responses; thus integrating 'top-down' expertise with 'bottom up' local knowledge. However, there needs to be some assurance that the best available technical, scientific and local knowledge is transparently discussed and evaluated. In other words, the multi-skilled team need to share and exchange knowledge so that the end result is that they operate more effectively when they come to examine complex problems holistically. Pinson (2004) argues that, particularly in the field of urban planning, it is not sufficient to have a multi-skilled group of practitioners and professionals; as the planning team need to be open to other disciplinary knowledge. An inter-disciplinary team can examine issues holistically, regardless of which disciplinary or interest group they may represent (Balsiger, 2004; Bruce *et al.*, 2004). Ramadier (2004) instructs us that true transdisciplinarity is possible if professionals and practitioners are able to articulate in partnership and seek a unity in knowledge. Social, economic and environmental issues were raised and discussed throughout the Upton EBD process. Some issues may be the priority of a few individuals but achieving a balanced and informed argument of why something should or should not be done is key to finding solutions for sustainable development.

## REFERENCES

- Alexander, C., 2004. Vision of a Living World: The Nature of Order Book 3; Chapter 3. Centre for Environmental Structure, [www.patternlanguage.com](http://www.patternlanguage.com), [date accessed 17/01/07].
- Balsiger, P. W., 2004. Supradisciplinary research practices: history, objectives and rationale. *Futures*, **36**, 407-421.
- Bentley, I., Alcock, A., Murrain, P., McGlynn, S. and Smith, G., 1985. Responsive Environments. Architectural Press, Oxford.
- Bruce, A., Lyall, C., Tiat, J. and Williams, R., 2004. Interdisciplinary integration in Europe: the case of the Fifth Framework programme. *Futures*, **36**, 457-470.
- CABE, 2005a. Creating Successful Neighbourhoods: lessons and actions for housing market renewal. Commission for Architecture and the Built Environment, London.
- CABE, ODPM and EP, 2005b. Design Coding: Testing it's use in England. CABE, Office of the Deputy Prime Minister and English Partnerships, London.
- Cambourne, 2007. Cambourne: the official website. [www.cambourne-uk.com](http://www.cambourne-uk.com). [date accessed 25.01.07].

Carmona, M., 1997. Residential Design Policy Guidance: Prevalence, Hierarchy and Currency. *Planning Practice and Research*, **13**, (4): 407-419.

Carmona M., 2001. Implementing Urban renaissance – problems, possibilities and plans in South East England. *Progress in Planning*, **56**, 169-250.

Carmona, M., Heath, T., Tanne. O. and Tiesdell, S., 2003. Public Places Urban Spaces: The Dimensions of Urban Design. Architectural Press, Oxford.

CLG, 2006a. Planning Policy Statement 3: Housing. Communities and Local Government, London.

CLG, 2006b. Planning Policy Statement 25: Development and Flood Risk. Communities and Local Government, London.

CNT, 1989. Northampton South-west Area: Environmental Statement. Commission for New Towns, London.

Countryside Agency, 2001. Policy integration: the integration of social, economic and environmental issues in development plans. Research Notes, CRN 26.

DETR, 2000a, Planning Policy Guidance Note 3: Housing. DETR, London.

DETR, 2000b. Our Towns and Cities: the future - Delivering an urban renaissance, The Stationery Office, London.

DETR and CABE, 2000. By Design, Urban design in the planning system. Thomas Telford Publishing, London.

DfT and ODPM, 2005. Manual for Streets: Interim Report. Department for Transport and the Office of the Deputy Prime Minister, London.

DoE, 1994. Planning Policy Guidance: Planning and Pollution Control (PPG23). Department of Environment. The Stationery Office Ltd, Norwich.

English Partnerships, 2007. Best Practice: Urban Design. [www.englishpartnerships.co.uk](http://www.englishpartnerships.co.uk) [date accessed 25/01/07].

Essex County Council, 2006. For Sustainable Futures: Essex Design Guide, Urban Place Supplement. Essex County Council.

Fadeeva, Z. 2004. Promise of sustainability collaboration – the potential fulfilled? *Journal of Cleaner Production*, **13**, 165-174.

Ford, L. R., 1999. Lynch revisited: New urbanism and theories of good city form. *Cities*, **16** (4), 247-257.

Hampton, G., 2005. Enhancing public participation through narrative analysis. *Policy Sciences*, **37**, 261-276.

Lennertz, B., 2003. The Charrette as an Agent for Change. In *New Urbanism: Comprehensive Report*

- and Best Practice Guide: Ithaca: New Urban Publications, pp. 12-28.
- Llewelyn-Davies, 2000. *Urban Design Compendium*. English Partnerships and The Housing Corporation, London.
- Jackson, J. I., Holt, Newman, D. R. and Clarke, D. J., 2006. Planning for environmental and ecological gain with Sustainable Urban Drainage Systems (SUDS): monitoring and evaluation of a storm water drainage system within a new housing development at Upton Northampton, UK. In Davies, B. and Thompson, S. (Editors), *Water and the Landscape: The Landscape Ecology of Freshwater Ecosystems*. Proceedings of the Fourteenth Annual Conference International Association for Landscape Ecology (UK). Oxford Brookes University, Oxford, UK. Collin Cross Printers Ltd, Preston, UK, pp 47-53.
- Jones, P., and Macdonald, N., 2007. Making space for unruly water: Sustainable drainage systems and the disciplining of surface runoff. *Geoforum*, **38**, in press.
- Morris, W. (1993) Reshaping the Urban Design Process. In *Designing a Sustainable Future, In Context: A Quarterly of Humane Sustainable Culture*. Spring 1993.
- NCI, 2004. Cross-disciplinary Public Involvement Report. [www.charretteinstitute.org](http://www.charretteinstitute.org), National Charrette Institute, [date accessed 20/11/2006].
- NCI, 2006. What is a charrette? [www.charretteinstitute.org](http://www.charretteinstitute.org), National Charrette Institute, [date accessed 20/11/2006].
- NBC, 1994. Northampton Local Plan. Northampton Borough Council.
- NCC, 1985. County Structure Plan. Northamptonshire County Council.
- Newman, P. and Kenworthy, J. R., 1996. The land use: transport connection: An Overview. *Land Use Policy*, **13 (1)**, 1-22.
- ODPM, 1998. Places, Streets and Movement: A companion guide to Design Bulletin 32, Residential roads and footpaths. Office of the Deputy Prime Minister, London.
- ODPM, 1999. Better Quality of Life: A Strategy for Sustainable Development in the UK. Office of the Deputy Prime Minister, London.
- ODPM, 2001. Planning Policy Guidance Note 25: Development and Flood Risk. Office of the Deputy Prime Minister, London.
- ODPM, 2002. Planning Policy Guidance Note 17: Planning for open space, sport and recreation. ODPM, London.
- ODPM, 2003a. Sustainable Communities: building for the future. Office of the Deputy Prime Minister, London.
- ODPM, 2003b. Participatory Planning for Sustainable Communities. Office of the Deputy Prime Minister, London.
- ODPM, 2003c. Better Streets, Better Places: Delivering Sustainable Residential Environments. Office of the Deputy Prime Minister, London.

- ODPM, 2004. Planning Policy Statement 1: Regional Spatial Strategies. The Office of the Deputy Prime Minister, London.
- Pawson, R., 2002. Evidence based research: in search of a method. *Evaluation*, **8** (2): 157-181.
- Patel, Z., 2006. Of questionable value: The role of practitioners in building sustainable cities. *Geoforum*, **37**, 682-694.
- Petts, J., Owens, S. and Bulkeley, H., 2007. Crossing boundaries: Interdisciplinarity in the context of urban environments. *Geoforum*, in press.
- Pinson, D., 2004. Urban planning: an 'undisciplined discipline'. *Futures*, **36**, 503-513.
- Raco, M., 2000. Assessing community participation in local economic development: lessons for the new urban policy. *Political Geography*, **19**, 573-599.
- Ramadier, T., 2004. Transdisciplinarity and its challenges: the case of urban studies. *Futures*, **36**, 423-439.
- Reed, M. S., Fraser, E. D. G. and Dougill, A. J., 2006. An adaptive learning process for developing and applying sustainability indicators with local communities. *Ecological Economics*, **59**, 406-418.
- Roseland, M., 2000. Sustainable community development: integrating environmental, economic and social objectives. *Progress in Planning*, **54**, 73-132.
- The Duchy of Cornwall, 2007. Design and development of Poundbury. [www.theduchyofcornwall.org](http://www.theduchyofcornwall.org). [date accessed 25/01/07].
- The Prince's Foundation, English Partnerships, DETR and CPRE, 2000. Sustainable Urban Extensions: Planned through Design. The Prince's Foundation: London.
- The Prince's Foundation, 2007. [www.princesfoundation.org](http://www.princesfoundation.org), [date accessed 17.01.07].
- Urban Task Force (1999) Towards an Urban Renaissance, SPON, London.