



Design Matters: Making Successful Places

Practical Design Coding

Royal Town Planning Institute – Northern Branch
Monday 21st March, Gala Theatre, Durham City

Michael Crilly [Urban Design Section Head, Newcastle City Council]

Introduction

This presentation examines the practical experiences of design coding, particularly the working processes associated with the development and production of a design code and questions what appears to be an inherent contradiction with other recent trends in design policy. It suggests how design coding; if it is fully understood as both "... a process and document" [CABE *et al* 2005 p15] can successfully respond to this procedural contradiction.

What is a design code and why is it a contradiction?

Rob Cowan [2002] makes a clear distinction between site specific design guidance and the approach to design coding which essentially places design guidance at a variety of scales from masterplan to development brief and as a normal prerequisite for a design code attached to a masterplan. This distinction and relationship of design guidance has been repeated by CABE in the current governmental working definition of design codes as something "... that sets rules for the design of a new development" and "... which is more regulatory" [CABE *et al* 2005 p15 and p7] because it is informed by a spatial masterplan. The masterplan is the vision ... followed by a code that gives ... precision and that is operational" [Murrain 2002].

Yet, at a superficial level, this can appear to contradict recent trends in design and urban policy. At one level, national policy and guidance calls for flexibility [CABE and DETR 2000 p14] within design processes by the use of qualitative criteria in contrast to the application of prescriptive standards to "... achieve more imaginative design solutions" [DETR 1998 p25]. "Good urban design is rarely brought about by setting rigid or empirical design standards but by approaches which emphasise design objectives or principles" [CABE and DETR 2000 p14].

New urbanism coding

To appreciate the potential conflict between recognisable 'anglo-liberal' approaches to design policy and design coding, there has to be an understanding to the theoretical and ideological background to the current trends in design coding. Explicitly, there has to be an understanding of the overpowering influence of new urbanism at a

national policy level [Marrs 2005 and Hay 2004] that has introduced, or re-introduced, a range of procedural tools and techniques to urban planners and designers. Although some commentators see these as a threatening application of an “atavistic, pattern-book form” [Smit 2004 p11] they appear to have high-level political support and interest in their use within the English context. “I wanted us to learn from the best experts abroad, in particular the American New Urbanists, who have been using design coding to deliver development with better quality design and community involvement”¹.

One of the most adaptable new urbanist tools is the hierarchically structured approach to urban transects - that views urban elements in a structured manner. Here, there is an implicit understanding that there is an underlying structure to the complexity of urbanism that sets it distinctly apart from suburban sprawl [Duany, Plater-Zyberk and Speck 2000]. The transect approach has a high degree of functionality in [1] the systematic approach to the characterisation of existing areas and providing an increased technical and dimensional understanding of existing urban form; [2] providing a structured approach to coding for new urban elements and adaptations to existing areas that fit within an existing urban environment. In this context, it is both “an analytical method and a planning strategy” [Talen 2002 p294].

There are two key themes arising from the use of this ‘alien’ methodology. Firstly, there has to be the necessary steps to ‘anglicise’ the approach and to make it relevant to the English context. Secondly, recognise that the processes of producing the code can remain ‘liberal’ and flexible. A common factor in the use of codes within the statutory planning system has become the process in the production of design guidance, or more accurately the procedural principles underlying the production of design guidance and design codes.

Adaptation of coding methods in Walker

The ODPM’s approach to testing and adapting recognised processes and coding mechanisms for the use of design coding within the English context; and then as a basis for a more locality specific adaptation within Walker Riverside; has also recognised the need for adaptation of methodology and procedural tools to get an appropriate ‘model’ that fits the context.

- Adaptation in scale – Rather than operating at a City scale, the approach is developed intra-urban at the scale of an urban community, within the context of the sustainable communities approach which is arguably an adaptation of a polycentric city model to fit into the English context.
- Adaptation in spatial application – Rather than operating within the context of land use zoning, the approach to transect zones is based

¹ John Prescott’s forward in CAGE 2005 p5.

upon discrete character areas within the urban community. Precedent for this adaptation has been set within the approach to coding the urban extension to Northampton.

- Adaptation over time - The approach itself has been understood as a tool which allows urban planners and designers to be flexible and pragmatic provided the approach is "open to continual refinement" [Talen 2002 p299]. Thus, the need for constantly updating and reviewing the design code [while at the same time maintaining the procedural emphasis of coding] can fit into the necessary review mechanisms implicit within the production of a code as a Supplementary Planning Document.
- Adaptation in detail – The level of prescription becomes variable in direct response to the involvement of a range of professional competencies.

Process of adaptation

The necessary level of adaptation of design coding tools; with regards the content, detail, emphasis; can only be understood in the context of the process of production. The following section sets out distinct examples or steps in the code production within Walker Riverside and suggests how well the coding methodology 'fits'.

Contextual process

"Round every sizeable town in England there is a ring of Arts and Crafts suburbs where, following planning rules drawn up by Unwin, behind laburnums and flowering cherry trees, the architecture ... lives on in endless copies of hips and gables, half-timbering and harling, mullions and leaded bay windows, with here and there an inglenook." [Davey 1995 p191] and, as CABE has recognised, "... some of our most cherished developments, from the Georgian period through to *Garden Suburbs* ... were based on design codes" [2005 p6 *my emphasis*] where "[t]he various buildings must be brought into harmonious relations one with another; the suburb or settlement must be conceived in some broader spirit and developed in relation to a definite idea of the whole ..." [Parker and Unwin 1901 p95].

The Anglicisation of design codes has historical precedent and examination of this 'garden suburb' precedent; albeit in a bastardised form in Walker Riverside²; could provide some clues to the research question "What is a design code and how might it work in the current English context?" [CABE *et al* 2005 p7].

² The largest regeneration programme in the East End of the City is at Walker Riverside. This is a partnership; between the City Council, the Community, the Places for People Group and Bellway Homes; that is likely to deliver 2,500 new homes, community facilities and significant investment in the public realm. The area is currently dominated by homogenous inter-war social housing loosely based on such a 'garden suburb' aesthetic.

The masterplan for this regeneration area is atypical of strategic plans as it has a higher level of uncertainty over individual development sites, clearance areas and phasing. This is very deliberate, as it sets out a process [rather than a prescriptive spatial plan] of incremental change, tenure diversification and intensification throughout the area. This incremental change will be based on core development and design principles. In this context, the role of an urban design code is partly to provide a level of certainty and commercial confidence in the quality and sustainability of the development, if not site specific details. Coding has to be place specific, you have to be aware of it's limitations and it's function is not to "... produce good architecture, but to allow good architecture to be produced within good urban design"³.

The fact that the area was initially built to a design code, albeit in a bastardised garden suburban form, has been partly responsible for the decision to develop a design code for the area. The use of a design code is also considered appropriate as the future of the area will largely remain dominated by this characteristic form of suburban development and one of the challenges is to achieve integration with the existing area.



[Example of 'transects' adapted to a series of hierarchical cross-sections within Walker Riverside, June 2004.]

Thus, in understanding the local context – one dominated by a 'deep' hierarchical to streets, spaces and buildings – the 'transect' approach fulfilled a useful 'characterisation' role in describing this urban structure at a neighbourhood level. The processes of using transect as a basis for characterisation provided a systematic approach and a strong emphasis on understanding key aspects of the public realm at a high level of detailed specification. In Walker, the emerging emphasis within the code, both in extent and level of prescription has been dealing with the public realm. This is essentially for two inter-related reasons. Firstly, the masterplan vision stresses the integration of new residential areas and areas of existing housing through the consistent approach to the specification of the public realm [one of the distinctive aspects in

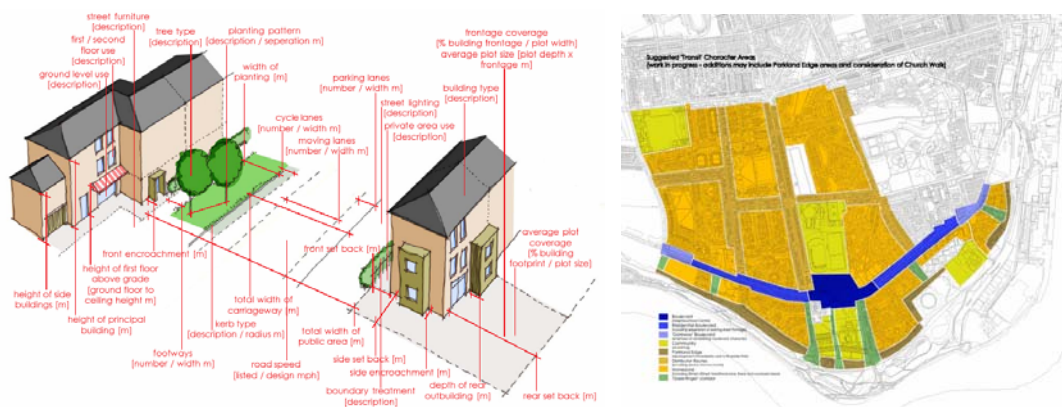
³ Martin Crookston, Director of Llewelyn-Davies and key author of the Walker Riverside Masterplan quoted in Smit 2004 p10.

dealing with a significant residential community and architectural context in existing development blocks, streets and building typologies] and secondly that the role of the local planning authority and highway authority in adopting and managing public spaces, street and parks has significant implications for financial revenue and the ability to manage and maintain these areas to a consistently high standard.

Inter-disciplinary process

In a summation of the design coding workshop undertaken by CABI at the UK's Urban Summit⁴, the commentator Anthony Fyson [2005 p10] wrote that ... "Plenty of problems lie ahead, not least in the time it takes to prepare the codes. CABI predicts three to five months plus an adoption period. But they appear to raise development quality and were described at the summit as 'bureaucracy that saves time' and 'a costly process that saves money'. They might even be worthwhile simply for the inter-professional collaboration that they promote."

This was already a key issues for internal work within Newcastle City Council and a multi-disciplinary 'designing in the highway group' had been established by the acting Head of Planning and Transportation to address some of the implications for internal working – in professional roles as diverse as development control, highway adoption, street lighting, environmental services – as a direct result of the challenges of the sustainable communities plan.



[‘Walker’ approach to coding elements based upon review and revision of transect methodology – highlighting elements of the public and private realm subject to coding and the definition of ‘transect’ character areas - that emerged from the second internal NCC workshop, July 2004.]

This working group became the ‘core’ of a coding team for Walker. Initial training on design coding was provided⁵ and this was the basis for two internal ‘charettes’ that [1] examined the use of transects as a methodology for recording specifiable aspects of the public realm in Walker, critically reviewed the approach and tailored the transect

⁴ The UK Urban Summit was held in Manchester during January 2005.

⁵ Members of the NCC ‘Designing in the Highway’ Group attended a two day coding workshop during July 2004 hosted by the Prince’s Foundation and led by Andres Duany.

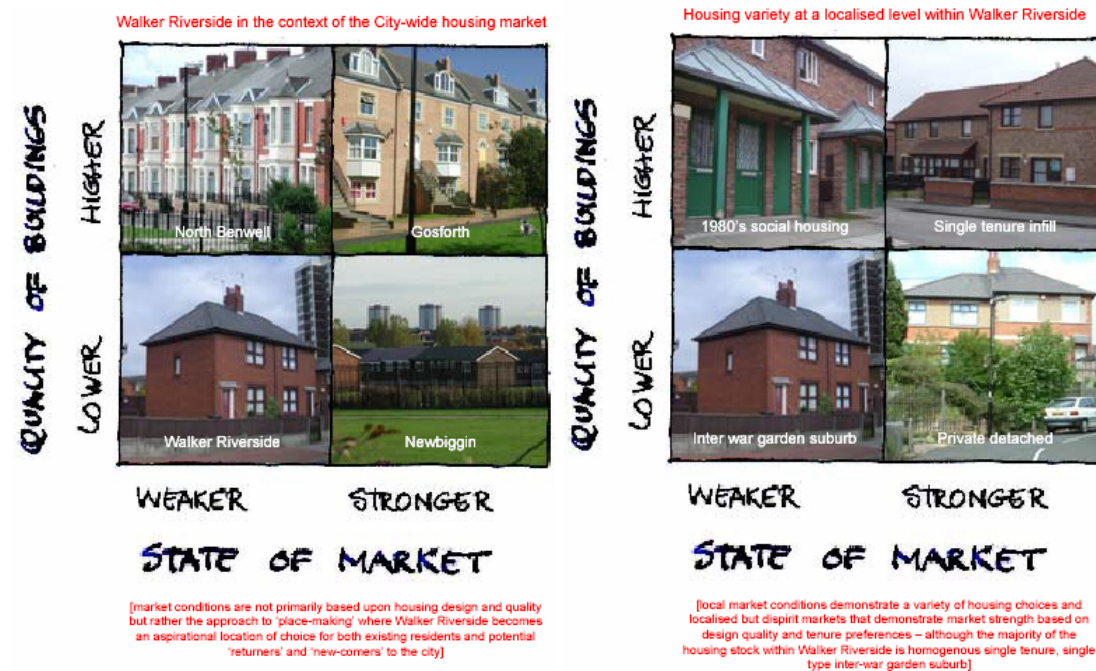
methodology to a more appropriate format⁶; and [2] used the revised transect structure for drawing and drafting theoretical transects that could be identified from the Walker Riverside masterplan.

Reflecting on the inter-disciplinary process, it is apparent that [1] coding methodology provides an opportunity for individuals to step outside of their professional roles; and [2] the internal inter-disciplinary group working can provide the basis for a single and consistent form of design guidance from the local authority.

Collaborative process

The working 'core' team from Newcastle City grew into a larger partnership team for a week long 'charette' that had the explicit aim of involving regeneration partners and the house building industry in the scoping and drafting of the design code.

The mutual benefits of design partnerships as previously highlighted by CABE [2004b] in areas of non-residential development were central to this approach to partnership working, and the partners from the development industry brought a distinctive perspective and range of questions for the content of the code.



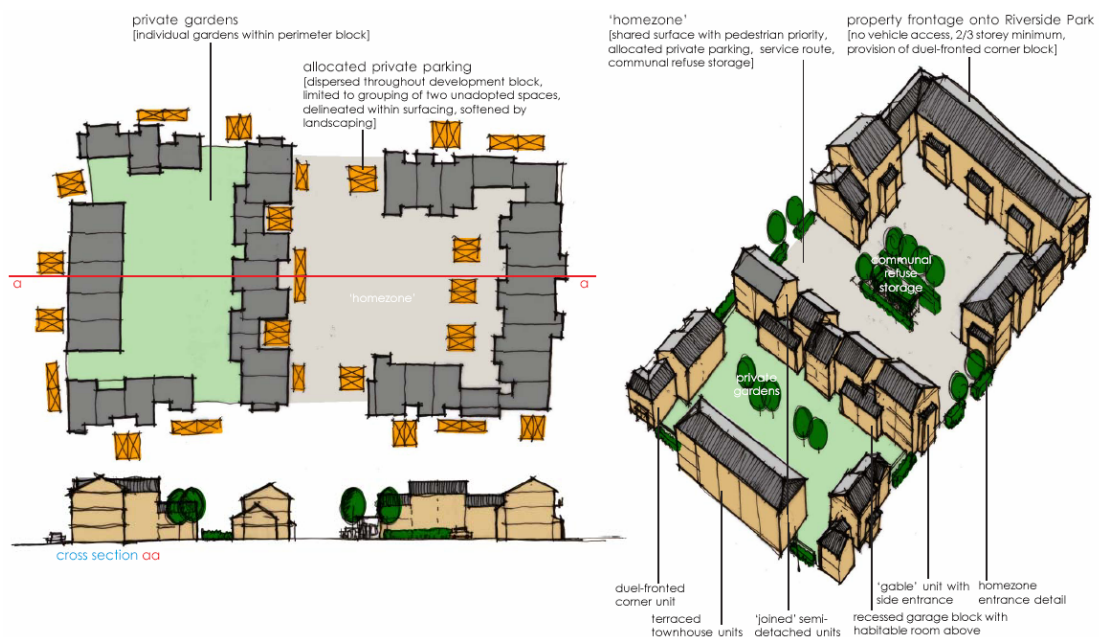
[Examples of assessment of the commercial context was undertaken by the 'core' coding team as part of the 'code-busting' session held in January 2005]

From the outset it was clear that aspects of the testing will have financial implications; or even to " ... link the adoption of design codes to incentives for developers" [CABE 2003 p8] with regard to the substantive specification, the professional input required to 'front-load'

⁶ In practice, the transect methodology began to be described as a non-specific cross-section that linked highway, landscape and building elements – with a distinction between the public and private realms – within a single drawing and specification. This in itself required interdisciplinary working.

the system and the anticipated speed and simplification of delivery through the statutory planning system [CABE 2003 p4].

One of the functions of the design code is as a basis of individual site specific briefs [attached to a fairly short client brief] within the regeneration area, providing clarity and consistency from the local planning authority and a baseline measure against development control. Thus, an on-going peer review of this potential role of the code has been the focus of a group of 'critical friends' [a range of local architectural, landscape and design practices]⁷. Initial feedback and comments from this 'peer review' process has helped to shape the form and content of the final design code to provide a cleared commissioning brief for development sites within the Walker Riverside masterplan.



[Examples of workshop output - coding elements of perimeter block, dealing with definition of public and private realms, parking, threshold treatments, planting – used as the basis for peer-review by 'critical friends' session, September 2004]

In part, this process addressing the challenge for Walker Riverside; as one of the ODPM national pilot coding areas; that it can demonstrate both the flexibility and utility of design codes as a tool [Smit 2004]. Effectively, this is sharing responsibility for the extent and level prescription in the code with voluntary, not-for-profit and private sector interests and experience. While at a national level house builders said they were "... waiting with interest as an industry to see what comes out of the pilot programme"⁸; in Walker these same house builders

⁷ This feedback session with 'critical friends' was held at the end of the partnership 'charette' in September 2004. The dominant view was that there has to be a clearly defined residential product [a variety within a hierarchy], likely to be based upon the updated garden suburb. The specification within the code; particularly the design of the public realm; should be able to be clearly understood as a tool to ensure coherent between development sites and deliver this defined environmental product.

⁸ Sue Bridge, Director of Planning and Development at Bellway Homes quoted in Smit 2004 p13.

were being asked to collaborate and take a shared responsibility for the same outcome.

This was the most extensive and time consuming aspect of the coding process and the key lessons from this intensive period of work are [1] there is a requirement for a cultural change in working arrangements can have clear mutual benefits for all partners; [2] the broader the partnership working [for example, in including a mix of RSL housing providers, private sector volume house builders] can bring together valuable experience in methods of construction, supply chain issues, managerial experiences of housing stock and public realm that are all inter-related; [3] there has to be a strong element of commerciality built into the code and a mechanism for updating the code on this commercial basis; [4] peer-review of the code content and emphasis is beneficial to all the code to function was a document for client briefing as well as planning control; and [5] consensus is most likely where the underlying rationale for design decisions is fully understood by all partners. This implies a level of trust, professional respect between partners and agents and the sharing of evidence.

Participatory Processes

While aspects of community consultation on what is essentially a technical specification document have been raised [Sullivan 2005], “the development of a code can be an excellent way of capturing and expressing community values” [CABE 2003 p5]. Initial experiences from Walker have been through a community based ‘Enquiry by Design’ process; promoted locally as a week long ‘Community by Design’ workshop.

The limitations are that an ‘enquiry by design’ workshop tends to be most effective when it is focused upon a particular geographical site. This was the case in Walker and as a result, lots of area specific ideas were generated but collectively these fail to provide the necessary rigor in testing options required to give the work of the charette any statutory status.

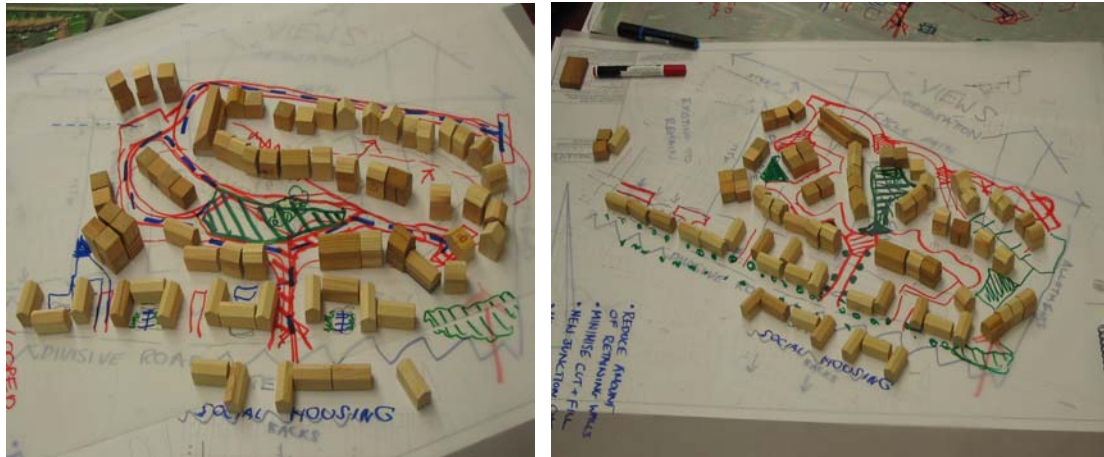
The nature of this exercise has caused the City Council; together with CABE and the ODPM; to rethink some of the potential means of dealing with public consultation on a technical coding document to a level that would ensure status as a Supplementary Planning Document. This is being planned as a series of representative focus groups with elected members, community leaders, cross-section of existing residents and potential future residents.

Review Processes

The development of a design code is an iterative process, particularly for the national coding pilot projects and “... ultimately, the power of any code is dependent on the system of implementation including the levels of enforcement” [CABE 2003 p6] and so the ‘code as process’

does not come to a convenient end whenever the drafting and illustration of the documentation has finished.

The intrinsic nature of a design code requires on-going review stages and the Walker Riverside code has begun this process by going through a 'code-busting' session where the code production stages were reviewed and the draft code was used as a basis for a demonstration site within Walker by a team of designers from outside of the region⁹.



[Examples from the 'code-busting' session – an initial and revised layout for a sample site in Walker Riverside regeneration area, using site sketch analysis and block modelling to test the application of the promoted form of perimeter development block with urban boulevard, homezone area and frontage onto the riverside linear park.]

The external peer-review so far has provided clear guidance over the effectiveness and content of the code. Potentially there is considerably more detail and prescription that can be added in later drafts to avoid misunderstanding; for example, in suggestions for the inclusion of a spatial regulatory plan [although this would have implications for public consultation, sustainability appraisal and the testing of options if it were to become a material consideration] and/or a clearer relationship with the area masterplan and which aspects of the vision and design should be placed in the plan rather than the accompanying code. Ultimately, there is the repeating debate over balancing flexibility and precision.

Sometimes it may be easier to use a code to preclude aspects of design, arrangements and/or materials rather than but there was a professional desire to accentuate the positive rather than produce a set of 'negative rules'.

Summary

This presentation began by questioning the nature of an apparent contradiction in national design policy and the governmental testing and potential endorsement of design coding within the statutory planning system; and then pondering whether the processes of

⁹ This was in partnership with the design team responsible for producing a comparative design code for an inner urban site in Rotherham – being part of the ODPM's national pilot and being within one of the nine national Pathfinder Housing Market Renewal areas.

developing a code might help avoid such a contradiction. So is there contradiction in national design policy, I would argue 'No' but there remains a questionable tension between the levels of prescription and flexibility in the potential application of design codes in the English context and it is inevitable that every policy discussion regarding codes will come back to the same issue – the level of necessary prescription within planning required to achieve high quality and sustainable development. Thus, it may be healthy to remain sceptical and critical of the role and appropriateness of codes in all situations.

Is design coding about regulation? The answer is 'yes' in some areas of technical and performance standards. In the Walker Riverside coding process there is recognition that the level of precision through the code is not about aesthetics, it is about environmental and technical performance standards. Most noticeably, the explicit links between design and sustainability [ODPM 2005] and the use of BREEM standards. This is complemented by accessibility standards, safety and security and; to a lesser explicit and prescriptive extent; design quality and the 'Building for Life' standards [CABE *et al* 2003]¹⁰.

Is design coding about prescription? The answer is 'no' in areas of appearance and aesthetics BUT this does not mean that visual impact is not important. The onus will still be on the developer and their agents to make a case; in the form of a design statement structured in a manner than is responsive to the design code and in a format specified within the design code; for compliance with the principles of the code or setting out any reasons and justification for departure.

The key message is that the strength of design coding is as a process that has the potential to be contextual, interdisciplinary, collaborative, community based and subject to regular review.

¹⁰ The *Building for Life* standard has been developed as a direct result of the Sustainable Communities Plan that links design excellence and sustainability for the first time, and it has been suggested that this "... could provide the benchmark for new housing recognised in the Sustainable Communities Plan" [CABE *et al* 2004 p3].

References

- Bayley, Stephen [1975] *The Garden City* [Open University Press, Milton Keynes].
- CABE, ODPM and English Partnerships [2005] *Design Coding: Testing its use in England* [Commission for Architecture and the Built Environment, London].
- CABE, House Builders Federation, Civic Trust [2004] *Building for Life Newsletter 1 – Sustainability* [Commission for Architecture and the Built Environment, London].
- CABE [2004b] *Local leadership for better public places; building sustainable communities* [Commission for Architecture and the Built Environment, London].
- CABE, House Builders Federation, Civic Trust [2003] *Building for Life Standard – A Better Place to Live* [Commission for Architecture and the Built Environment, London]. Available at www.buildingforlife.org
- CABE [2003] *The Use of Urban Design Codes: Building Sustainable Communities* [Commission for Architecture and the Built Environment, London].
- CABE and DETR [2000] *By Design: Urban Design in the Planning System – Towards Better Practice* [Thomas Telford, London].
- Cowan, Robert [Ed.] [2002] *Urban Design Guidance: Urban design frameworks, development briefs and master plans* [Thomas Telford, London].
- Davey, Peter [1995] *Arts and Crafts Architecture* [Phaidon Press, London].
- DETR [1998] *Planning for the Communities of the Future* [Department of the Environment, Transport and the Regions, London].
- Duany Plater-Zyberk and Co [2001] *Transect Code* [Miami, Duany Plater-Zyberk and Co]. www.smartgrowthcode.com
- Duany, Andres; Plater-Zyberk, Elizabeth and Speck, Jeff [2000] *Suburban Nation: The rise of sprawl and the decline of the American dream* [Farrar, Straus and Giroux, New York].
- Fyson, Anthony [2005] 'Design codes and why they might just work'. *Planning* 4 March p10.
- Hay, George [2004] 'Planning: the American dream'. *Building* 47[26] pp41-44.
- Marrs, Colin [2005] 'Britain taps into the USA's housing design code'. *Axis* 58[6] pp12-13.
- Millard-Ball, Adam [2002] 'New Urbanism'. *Urban Environment Today* 21 February pp12-13.

Murray, Paul [2002] 'Understand Urbanism and get off its back'. *Urban Design International* 7 pp131-142.

ODPM [2005] *Planning policy statement 1 [PPS1]: Delivering Sustainable Development* [Office of the Deputy Prime Minister, London].

Parker, Barry and Unwin, Raymond [1901] *The art of buildings a home: A collection of lectures and illustrations by Barry Parker and Raymond Unwin* [Longmans Green and Co, London].

Princes Foundation, English Partnerships, DETR, CPRE [2000] *Sustainable Urban Extensions: Planned through Design* [English Partnerships, London].

Smit, Josephine [2004] 'Designing by numbers' *Homes* pp 9-13.

Sullivan, Martin [2005] 'Cracking the code: Design coding'. *Sustain* 6[1] pp24-25.

Talen, Emily [2002] 'Help for Urban Planning: The Transect Strategy'. *Journal of Urban Design* 7[3] pp 293-312.

Tasman, Dan [1995] '15 Ways to Fix the Suburbs'. *Newsweek* 15 May.