Housing for Europe - Strategies for Quality in Urban Space, Excellence in Design, Performance in Building gathers the results of the Urbact II Working Group "Hopus – Housing Praxis for Urban Sustainability". It is a multi-disciplinary reflection on urban development, encompassing strategies, governance models, guidance instruments and assessment tools, all considered in the wider framework of current European policies on the city, housing and building technology. The looking glass of a two-year transnational exchange project, bringing together universities and local administrations, allows us to understand the great challenge lying ahead in the 21st century: the quest to create cities which are beautiful, healthy, and attractive places to live.
Housing for Europe
Housing for Europe

Strategies for Quality in Urban Space, Excellence in Design, Performance in Building
The Urbact II Operational Programme 2007-2013
Working Group HOPUS - Housing Praxis for Urban Sustainability
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Housing for Europe
Strategies for Quality in Urban Space, Excellence in Design, Performance in Building
edited by Carola Clemente and Federico De Matteis

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## European Cities: A Brighter Urban Future?
*Benedetto Todaro*  
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### PART 1
Policies and Strategies for European Housing

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The history of Europe is a history of cities: these are the places where everything took place, arts and inventions, philosophy and trade, wars and revolutions. They are the very embodiment of European culture, and have played this crucial role for centuries. For a long time they have also been the designated place of beauty: beautiful places where monuments and cathedrals acted together with ordinary houses, giving life to amazing streets and squares where people lived and thrived. Even the 20th century, with its convulsive history of splendor and destruction, saw cities flourish and grow. But while planners and architects were inventing new ways to build and experience urban space, something else was happening: for the first time, cities were growing out of control, becoming large and complex conglomerations where true urban space was absent, the environment was heavily damaged, and which were very difficult to govern.

This is our European urban present, a mixed-feeling situation where our extraordinary city cores are surrounded by anonymous city crowns, where quality goes from high to low, and beauty has often left the ground. Is it possible to take action against this urban decadence, imagining innovative ways to build and govern the city, allowing both new developments and the transformation of the existing to achieve a high quality? Does a European urban tradition still exist? Will Europe be able to strive for the aims of the Leipzig Charter, which calls for our cities to be the driving force behind our future?

Housing lies at the heart of urban space, and our project studied the ways in which good residential design can lead to the creation of a good city and vice-versa. There are few things as tightly connected to local culture as dwelling, while at the same time referring to universal matters embodied in human beings. In some ways, understanding this double nature of housing means capturing the very problems of a large, diversified community such as Europe, constantly seeking a balance between what is common to everyone and what is specific to each person. We know that Europe aims to be the place of differences, a community of cultures and people who have joined forces to move together in one direction and learn from each other. The cities in our continent well represent this: different traditions, different ways
of building urban space, some successful, others less so, but with a common intention to improve what we have now. The will and ability to learn and understand is the greatest enrichment which different – and at times very distant – realities can gain from each other. This is what our Hopus project has been all about: understanding. There is no way we can transport a good urban practice as it is from one place to the other: for cities are made of people and places, and you cannot change either as if by sheer magic. But we can understand the logic behind this good practice, and try to devise a gradual change in our own way of doing things, interpreting what has been done somewhere else in the light of our local reality.

What the Hopus project has been capable of understanding is that there are, today, good ways of building the city, of designing housing, of achieving a sustainable urban development through intelligent construction. But the overarching problem is that of merging the general with the specific, the universal with the local: a problem which has so far hindered Europe from truly taking action in this direction, since it could, in doing so, betray its very nature of harboring difference and specificity. It is no easy task, and the road ahead promises unparalleled complexity. Nevertheless action must be taken, and the Leipzig Charter was a first, important step in this direction: it is the promise of a brighter urban future for Europe, and its coming implementation, in the hope that it will be as far-ranging as possible, is a challenge we must all contribute to winning.

The two years during which Hopus was enacted were a time of learning, and we believe that the result may contribute a tiny piece to the enactment of a better urban future for Europe. It was the shared effort of many people, whom we thank for their support and contribution: the whole Urbact II Secretariat, who led the way and made a fruitful exchange inside the programme possible; our Thematic Pole Manager Philip Stein, who followed the project’s development from the beginning, providing precious advice all along the way; the many friends from other Urbact projects with whom we had a chance of exchanging views and experience; our project partners, who worked with us throughout the not-always-easy development of the project: Manuela Almeida, James Arnold, David Kemp, Piotr Lorens, Martino Milardi, Deborah Pennestri, Saverio Putorti, Milly Tambach, Gabriela Rembarz and all the people on their teams; our lead expert Matthew Carmona, who gave us invaluable insight into the project’s content; our administrative staff and our communication officer Manuela Pattarini; and, last but not least, our lead partner project team, who created Hopus from the very ground up and worked incessantly on it for two years: Carola Clemente, Livia De Andreis and Federico De Matteis.
1

Decoding Design Coding

HOPUS LEAD EXPERT
Prof. Matthew Carmona
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1. A story to start

1.1 From Rome to Gdansk, and everywhere in between

HOPUS has brought academics and practitioners together from across Europe to discuss questions of design and sustainability in housing and its regulation through public sector guidance and control (De Matteis 2008). Our first meeting in Rome provided the opportunity to steel a little time to pound the well-worn tourist trail, and to re-charge our urbanism batteries through absorbing the delights of Piazza Navona, Campo de’ Fiori, Piazza del Campidoglio, Piazza della Rotonda, and the like. With our batteries well charged, we set off on a tour of contemporary housing developments in Rome’s fast expanding suburbs. We were sorely disappointed! It seems that despite Italy’s unique and enviable urban heritage, and the seemingly highly desirable absence of separate planning and architecture professions (planning and architecture are simply branches of the same profession), there is no real tradition of urban design in Italy, at least not in the suburbs. In these areas developers (and architects) focus on buildings, whilst planners focus on the production of two-dimensional zoning plans. No one focuses on the bit in between, the public realm, which remains largely un-designed (figs. 1 and 2).

As a result, instead of being linked by a coherent and connected urban fabric that encourages walking and social and economic exchange, and which allows people to simply enjoy the city (as millions of Romans and tourists do every year in the city’s historic centre), what
we have is buildings constructed in un-related plots, with the spaces in between dominated by parking and roads, and by very little else. Instead of a corner shop or café, American style, these new suburbs rely on their privatised malls to serve their low-density edge city communities (fig. 3).

In Rome, the result is all the more surprising given the historic context, but presentations from the other nations represented in HOPUS – UK, Poland, the Netherlands, and Portugal – soon revealed that we all suffer from exactly the same unsustainable anti-urban environments. In Gdynia, for example, where we held a HOPUS conference, despite the careful and exemplary reconstruction and restoration of the neighboring city of Gdansk during the second half of the last century, the suburbs of Gdynia are seemingly left almost entirely to the market. The results are hugely variable in their quality, but favour smart but gated enclaves for the wealthy (fig. 4), and often soulless estates for the rest (fig. 5), although a minority of housing developers are attempting something more democratic and enlightened (fig. 6).

1.2 Suburban design, boiling it down

It seems that whatever the system, whatever the governance, no matter what our rules and regulations, however we organise our professions, and no matter what our histories, sprawl seems to be the inevitable consequence of our development processes. Moreover, this is despite the ubiquitous condemnation of such environments as sub-standard by almost every built environment professional you ever meet (including all in HOPUS).

What, one might ask, do we all have in common that leads to such fragmented and sub-standard suburbs. One answer can be found in love of crude regulations that substitute for design; the volumes of standards that together act to control and often indirectly perpetuate such unloved suburban space – parking standards, highways regulations, zoning controls, density guidelines, health and safety regulations, construction codes, etc. Typically these are limited in their scope and technical in their aspiration, and are not generated out of any designed vision for a particular place. Similarly, they are often imposed on development
projects without regard to what type of spaces they generate, or to how they impact on other design-based aspirations, from sense of community to sustainability. The process is one of design in that such places are being actively conceived by professionals, but it is a sort of ‘unknowing’ design in which nobody is consciously designing the end result. Instead, it simply emerges as the happenstance of applying the various regulations. Given the very obvious ability of public authorities all over Europe to deliver such ‘technical’ standards, the question arises, might it be possible to ‘boil down some higher order urban design principles in order to establish a set of irreducible minimum standards for delivering a more human, coherent and sustainable public realm? In other words, what are the urban design ‘must-haves’ that might form the basis of country by country regulations in order to overcome our seeming inability to deliver better ‘suburbanism’? These, of course, would need to vary from city to city and from country to country, but by way of illustration nine simple rules would go a long way to overcoming many of the problems seen amongst the HOPUS group.

Their adoption would dramatically improve the chance of a better quality suburban public realm; although no rules could ever guarantee it:

1. Streets should form a continuous urban network with all streets joining at least two others
2. Streets should be designed for a maximum vehicle speed of 30Km per hour
3. Every street and / or building block should host at least two (preferably more) major land uses
4. Buildings should face public space and create a coherent, continuous, building line
5. Blank facades at street level should not be allowed
6. Space for private front planting and / or street trees should be provided
7. Existing trees, landscape and natural features should determine site layout and character
8. Design to reduce, reuse and recycle natural and energy resources

*Figures 4, 5, 6. Gdynia*
It may be that a simple code of this nature could help to deliver the coherent urban framework that suburban areas so often lack. Within the rules, huge scope would remain for different architecture styles, densities, housing forms (terraced, semi or detached), landscape treatments, road layouts, morphologies, sustainable technologies, and market segmentation, whilst ensuring that at least a basic, coherent urban fabric is delivered.

The historic centres of our great cities, including those referred to above, are based on a not dissimilar set of simple (if typically un-written) urban rules. The HOPUS group has explored how more intelligent forms of regulation might be developed and used in order to deliver such objectives.

1.3 This paper
This framework paper is structured in five substantive parts. Following this introduction, it:
- Explores questions of public sector regulation of design and the tools available to public authorities to do so
- Examines design guidance as a generic tool, and the forms of guidance available to regulators
- Focuses in one particular type, the design code, and examines the potential of these tools to deliver better design outcomes
- Concludes with a case study that used coding to deliver the types of urbanism principles espoused above.

2. The conundrum of design regulation

2.1 To regulate or not to regulate
Nan Ellin (2006: 102) poses a critical question about public intervention, asking whether we should “... step aside and allow the city to grow and change without any guidance whatsoever?” She answers her own question:

“No, that would simply allow market forces to drive urban development. Markets are only designed to allocate resources in the short term and without regard for things that do not have obvious financial value like the purity of our air and water or the quality of our communities”.

Good design might fall into such a category. In this respect, although public intervention and regulation of development might be seen as an appropriate response to the dysfunction of markets that results in poor design and place-making, this presumption is susceptible to the fallacy that the solution to imperfect markets is (perfect) government. Just as markets fail, so do governments. Hence, the presumption that ‘good’ design regulation, *ipso facto*, leads to ‘good’ design must be treated with caution and scepticism. In reality the situation is complex and raises fundamental questions about the state’s role in a market economy.

Some argue that often there is no market failure in the first place, and the expensive and time-consuming bureaucracies put in place to correct presumed failure
often have worse side-effects than the problems they seek to address. Van Doren (2005: 45; 64), for example, argues that regulation is inherently costly and inefficient, but difficult to change because of political support for it from what he describes as ‘bootleggers’ (special interests who gain economically from the existence of regulation) and ‘Baptists’ (those who do not like the behaviour of others and want government to restrict it). He quotes the work of regulatory economists who have generally come out against regulation, arguing that in most cases no market failure existed in the first place. So, whilst admitting that forms of design guidance have not been subject to such analysis, he concludes that they inevitably create barriers to change and innovation. In arguing the case against zoning in the USA, for example, Siegan (2005) suggests zoning increases the price of homes by limiting supply; encourages sprawl by imposing restrictions on uses, densities and height; and is exclusionary because it acts against the needs of disadvantaged groups by distorting the market from meeting their needs (e.g. discount shopping or an auto repair shop in a residential area). It may be, however, that rather than a fault of intervention per se, this is the fault of poor public intervention that has, first, failed to allocate enough land for development, and, second, as Leinberger (2008) argues, has been based on a ‘drivable urbanism’ (fig. 7) model of development (namely sprawl), rather than a walkable neighbourhood model (fig. 8) of the type encompassed in the principles outlined at 1.2 (above). Clearly, just as there is good and bad development, so there will be good and bad regulation. As land - and the power and resources to develop it - is in large part vested in private hands, in some form, public sector intervention and regulation is inevitable to protect the property rights of other land owners and protect the rights of society at large against inappropriate development. There is no such thing as a ‘free’ market, as even in the least regulated places, controls of some form or other can be found on the use of space. In Houston, for example, the only major US city without zoning controls, ordinances have been adopted to alleviate particular land use problems including banning nuisances, imposing off-
street parking, and regulating minimum lot, density and land use requirements (Siegan 2005: 227).
Rather than a debate about whether to intervene or not, the debate is thus about what type of intervention and how that intervention occurs. It is therefore vital to understand where public sector interventions in the development process can be most effective - typically before or during the development design stage rather than after it, namely as a proactive rather than reactive form of intervention.

2.2 The tools: guidance, incentive and control
The public sector has a range of possible ‘tools’ at their disposal to intervene in the design process (see Chapter Three). Schuster & Monchaux (in Schuster 2005: 337-8) have categorised these as:
- Ownership and operation, the public sector may choose direct provision by owning land and building itself (the state will do X)
- Regulation, by intervening directly in the actions of others who seek to develop (you must or must not do X)
- Incentives (and disincentives), might be offered to encourage certain behaviours, for example grants, land transfer or enhanced development rights (if you do X the state will do Y)
- Establishment, allocation and enforcement of property rights, for example through zoning or re-zoning land uses (you have the right to do X which the state will enforce)
- Information, by collecting and distributing information that is intended to influence the actions of other actors, such as the production of guidance on desirable design attributes (you should do X or you need to know Y in order to do X).

For the purposes of the public sector influence on the design of private development, these can be simplified and expressed in terms of three related processes of ‘guidance’, ‘incentive’ and ‘control’:
- **Guidance** equates to the ‘positive’ encouraging of the right sort of development (development in the public interest) through the production of a range of plans and guides. These will have more or less authority depending on the statutory powers under which they are prepared. They will range from simple ‘Information’ tools to ‘establishment, allocation and enforcement’ devices to guide the distribution and redistribution of land uses. Ultimately, however, it will be for landowners to determine whether they wish to seek to develop (or not). The power to make positive proposals is thus limited by it typically being the private sector that has access to resources.
- **Incentive processes**, by contrast, equate to more ‘proactive’ processes of enabling development that is in the public interest, through actively contributing public sector land or resources to the development process (perhaps to fill a funding gap), or otherwise moving the goalposts to make the prospect of development more attractive to landowners; perhaps through the provision of public amenities, development bonuses, changing allocations, or providing a high quality public realm.
- **Control processes** give public authorities the power over the development process through the ability to say ‘no’ to development. If guidance and incentive fail, then
control offers the ultimate sanction for municipalities to ensure the public interest is being met via a series of overlapping regulatory regimes – planning, conservation, highways adoption, environmental protection, building permits, etc. Although denying relevant development permissions is a negative act, control processes often involve negotiation, advocacy, persuasion and even bluff (threatening to deny permission). Controlling development is thus often a complex and highly skilled process involving the weighing and balancing of public against private needs and aspirations.

Rather than a top-down, command-and-control activity, a better way of understanding the role of the public sector in regulating design is thus as a means of encouraging and enabling the production of higher design quality and better places, where processes of control are shaped by allied processes of guidance and incentive which, ideally, should precede the act of control. John Punter (1998: 138) highlights how public sector control has changed from an inherently negative concern with design control to a more positive concern for design quality. He argues that the traditional view of design has been a static one of an ‘end product’ – a particular piece of built form – rather than a dynamic one of a process – a creative problem-solving process – through which a development is produced. The need, therefore, is for tools that reflect the potentially positive and proactive role of the public sector in shaping places, but which are backed by the ultimate sanction of control.

2.3 Design quality, but whose?

‘Design quality’ is of course a problematic concept, not least because it will mean different things to different stakeholders. Furthermore within any particular community or society, there is unlikely to be consensus on what is meant by higher design quality, nor about what makes a good place (figs. 9-11). Indeed, a primary task of the public sector may be to build consensus about what constitutes design quality through consultation and engagement with key stakeholder groups, over time.
Based on restrictions of private property rights, systems of regulating design and development invariably arouse great passions and sometimes controversy. Those who perceive themselves to be most directly affected – designers and developers – often make the most strident case against such forms of control. As Walters (2007: 132-133) argues: “Many architects are guilty of knee-jerk reactions to design standards, preferring the ‘freedom’ to produce poor buildings rather than be required to improve standards of design to meet mandated criteria.” Not uncommonly designers hold the inherently contradictory attitude that design controls should apply to everyone but themselves.

Brenda Case Scheer (1994: 3-9) has articulated many of the perceived problems with public sector attempts to ‘improve’ design. She suggests such processes are:

- Time-consuming and expensive
- Easy to manipulate through persuasion, ‘pretty pictures’ and politics
- Performed by overworked and inexperienced staff
- Inefficient at improving the quality of the built environment
- The only field where lay people are allowed to rule over professionals directly in their area of expertise
- Grounded in issues of personal rather than public interest, particularly in maintaining property values
- Violating rights to free speech
- Rewarding ordinary performance and discouraging extraordinary performance.
- Arbitrary, vague and superficial
- Encouraging judgements that go beyond issues outlined in adopted guidelines.

In his response to these criticisms, Witold Rybczynski (1994: 210-211) outlines why, despite their perceived faults, processes of design regulation continue to command significant commitment within public authorities. Given the frequency and ferocity of debates on the issue, he argues such processes can be considered to be ‘extremely effective’. Furthermore the processes reflect both public dissatisfaction with the idea of professional expertise and an apparent lack of consensus in the architectural profession about what constitutes good design. He, therefore, suggests such processes should be seen as tools to guarantee at least a minimum compatibility between ‘new’ and ‘old’, and are of particular value because they reflect and promote deeply held public values.

Moreover, noting that by the end of the C20th, such values had a ‘nostalgic’ rather than ‘visionary’ flavour, he argues this is entirely understandable in an era when the explosion in building techniques and materials has unleashed a multiplicity of design styles and possibilities, many of which contrast unhappily with established contexts (Rybczynski 1994: 210). He concludes that historic experiences of state intervention in design:
“...in cities as disparate as Sienna, Jerusalem, Berlin, and Washington DC, suggest that public discipline of building design does not necessarily inhibit the creativity of architects - far from it. What it does have the potential to achieve ... is a greater quality in the urban environment as a whole. Less emphasis on the soloist and more on ensemble playing will not be a bad thing.” (Rybczynski 1994: 211)

Experience within the HOPUS group confirms that careful control does not necessarily imply ‘conservative’ design or a failure to innovate (good or bad) (figs. 12-14). Although debates will undoubtedly continue, the processes increasingly carry political commitment and widespread public endorsement, particularly in Europe. This is critical because before there can be guidance, incentive or control, built environment professionals must persuade politicians and other decision-makers that concern for design quality is necessary and worthwhile. Equally, if they are to have any impact, they also need to persuade those with the power to make a difference – developers, investors, occupiers – of the benefits of investing in place quality. Thus, if they are to move beyond the crude forms of regulation discussed in 1.0 (above), practitioners working in the public sector and local politicians need a better-developed understanding of place-making.

Carmona (2001: 132) argues that the priority given to design by public authorities is evident in four key ways:

1. Through the development of design criteria considered relevant to the public interest and appropriate for guidance and control
2. Through the responses to, and concern for, local context
3. Through the value placed on the different mechanisms used to regulate design
4. Through the resources devoted to design and securing better places

Taken together, these factors largely define the public sector’s approach to design. A range of other factors
can, nevertheless, act to undermine local initiative, including:
- A lack of political will to engage in design concerns (nationally and locally)
- The strength of local investment and property markets
- The ‘conservatism’ and anti-development attitudes of local communities and politicians
- The capacity of the European historic fabric to accommodate change
- The availability of skilled designers (particularly those with urban design expertise)
- The willingness of developers and investors to consider issues of, and invest in, design quality
- A lack of flexibility in some regulatory systems to work outside their own technocratic processes and narrowly defined design standards.

Getting the right tools in place cannot address all of these issues, but it can directly address the last of them (and thereby a key Europe-wide disincentive to delivering better quality development) and indirectly impact on the rest.

3. The nature of design guidance

3.1 What is design guidance?
This section focuses on the use of design guidance as a tool in the design regulation process. Through examining design guidance as a generic type, it is possible to reveal its variety and distinguishing characteristics before, in section 4.0 (below), discussion moves on to examine one particular form of guidance in greater depth – the design code. The discussion here and in 4.0 recognizes that the nature and limitations of all forms of design guidance need to be fully understood before they are applied in practice. At its most basic, design guidance can be defined as: a generic term for a range of tools that set out design parameters with the intention of better directing the design of development. Different countries have different traditions and use different forms of guidance to greater or lesser degrees. In France typo-morphological guidance is commonly used to understand and respond to the character of larger historic areas (fig. 15). In Australia, Victoria’s Rescode provides a state-level design guide for residential developments, whilst in the USA, the New Urbanists’ Transect offers a generic form of design guidance offering prescriptive design solutions for all types of development across the continuum from city core to countryside. In the UK, the detailed and unwieldy residential design guides produced by local authorities up and down the country since the 1970s are now widespread; the Essex Design Guide being the most famous (see http://www.the-edi.co.uk/?section=publications_EDG).

These various forms of guidance are produced by the public sector to guide (predominantly) the design of housing developments. Yet design guidance does not have to take this form, it does not have to be produced by the public sector, it can relate to all types of development, and rather than generic guidance for all areas within an administrative jurisdiction, it can be customized to guide development for specific areas or sites. In Germany, for example, Bebauungsplans represent...
sophisticated site-specific tools for guiding the urban structure of developments (fig. 16).

Reflecting this diversity, there has been a proliferation of types of design guidance. In the UK alone, this proliferation extends to: design guides, design strategies, design frameworks, design briefs, development standards, spatial masterplans, design codes, design protocols, action plans, indicators, labelling schemes, and design charters. These terms are often confusing, poorly defined and over-lapping, and despite attempts to classify them in relation to one another (e.g. Carmona 1996), their sheer variety only helps to illustrate the ambiguity of design guidance as a regulative tool, and the confusion that can too easily result from their use.

Space does not allow discussion of each of these types of design guidance and the many others found across Europe. Instead, by way of example, discussion will focus on one particular form of design guidance – the design code (see 4.0) – that quickly became the focus of HOPUS (De Matteis 2008). Before that, it is first necessary to briefly put some flesh on the bones of the definition of design guidance proposed above, by discussing the nature and diversity of design guidance generically as a tool, and starting with what design guidance is not:

- First, design guidance is not a legally defined and binding ordinance or policy, because such tools suggest an element of enforceability that the term ‘guidance’ cannot possess. Instead, guidance suggests advice rather than compulsion.
- Second, it cannot be a ‘blue-print’ such as a fixed masterplan, because ‘guidance’ equally suggests a sense of direction for, but not an end solution to, a design problem.

Figure 15. Ville de Montreuil

Figure 16. Vauban Freiburg
Finally, guidance cannot simply be analysis such as site or character appraisals, as analysis in isolation does not suggest a design direction at all, only information that might be useful in establishing one.

As such, it is not always immediately apparent how design guidance fits into the range of tools available to those in the development process. Kevin Lynch’s (1976: 41-55) four modes of urban design action for public authorities – diagnosis, policy, design, and regulation – for example, make no reference to guidance. In fact, aspects of design guidance will often have a role in each of Lynch’s modes, and the boundaries between guidance and at least the first three are not clear: some forms of policy may contain guidance, some design guidance will contain site or character appraisal information, and seemingly fixed design schemes may be open to reinterpretation and change as successive phases of a development are realised over extended periods of time.

3.2 The characteristics of design guidance

Despite the ambiguity and the surfeit of labels for design guidance, it is possible to classify different forms of guidance through a number of its characteristics:

1. **Subject matter** – Classifying by subject matter is the most obvious and straightforward, in other words by land use, location (suburban, urban, rural), or development issue (e.g. infill sites, shopfronts, building additions, etc.). Some forms of design guidance may deal with more than one of these.

2. **Context type** – A related issue is the context to which guidance pertains, and in particular its relative sensitivity, for example whether concerned with extensive new-build sites, in-fill development in established urban areas, or change within a historic setting.

3. **Scale of application** – A further related issue concerns the scale of application; whether dealing with strategic design concerns such as infrastructure provision, urban design issues (space networks, public realm, mix of uses, etc.), or questions of architecture and detailed landscape design.

4. **Governance level** – Design guidance is produced at all levels from central government and its various agencies, to regional and sub-regional, to local government. This can produce complex regimes of policy and guidance that are sometimes conflicting and repetitious, although this varies from country to country.

5. **Generic vs. specific** – A related question is whether the guidance relates to specific and well-identified sites, or is generic, relating to large areas (e.g. a whole municipality) and undefined sites. Generally, the smaller the scale of application, and the lower the governance level, the greater the degree of specificity.

6. **Level of detail** – Different forms of design guidance vary considerably in terms of their level of detail, from broad aspirational principles of ‘good’ design, to very detailed guidance on particular aspects of a design problem. The level of detail will even vary within a particular guide, from subject to subject.

7. **Level of prescription** – To some degree the level of specification will depend on the level of importance
attached to a particular design concern, which may also be reflected in the way guidance is expressed. Although design guidance should remain advisory, some aspects may be expressed with a greater or lesser degree of conviction than others, for example: ‘developers should normally … ’; as opposed to ‘developers might consider … ’.

8. **Ownership** – Whether instigated and owned by a public or private organization offers a further means to classify guidance. Typically design guidance is associated with the desire of public sector agencies to improve (in the public interest) the design of private sector development. But design guidance is also produced by the private sector both to guide an enterprise’s own developments and to shape the inputs of different corporate partners into a common project; for example where different housebuilders are working on neighbouring phases of a larger development. As in the public sector, the contents and style will vary from case to case.

9. **Process or product** – A critical distinction will reflect the relative emphasis in guidance on the design, development and regulatory processes as opposed to the desired products or outcomes. Design guidance typically incorporates both sets of concerns, although some will focus solely on one or the other.

10. **Medium of representation** – A final classification reflects the medium through which guidance is represented, be that traditional printed form, or through more interactive electronic and web-based means. This will not necessarily change the content of guidance, but will determine its style and most likely how and by whom it is used.

The above distinctions can be demonstrated for three very different (but historically influential) examples of design guidance in the UK (fig. 17).

Knowing that a great variety of design guidance exists, however, is of little value unless users understand, first, why different forms of guidance are used and, second, their problems and potentials. The first of these questions appears simple; all forms of design guidance exist for one purpose, to inform the process of design so that it is more likely to achieve a specified set of design ends. Thus guidance can be deemed successful if these outcomes are better than would have been achieved without it.

The goals envisaged for design guidance, however, may vary, depending on the ambitions of its instigators and the nature of the development context; whether the intention is to establish minimum desirable thresholds for quality or to raise the bar and strive for superior design. The former – a ‘safety net’ approach – may be the limited ambition of a generic design guide or a guide in an area beset by poor quality development. The latter – a ‘springboard to excellence’ – should be the case for site-specific guidance or for guidance in an area where stakeholders are already committed to achieving better quality. Although not mutually exclusive, these aspirations would depend on the nature of likely users, the extent to which they are receptive to the content of guidance, and on the balance of power between stakeholders (particularly between public and private sectors) within the development process (Bentley 1999: 28-43).

All this implies that the nature of the development process and how design guidance is used within it needs...
to be fully understood. This is best discussed through focusing on a particular type of design guidance – the design code – that in different forms has increasingly been used across Europe in some of the most high profile and successful development projects, such as Vauban in Freiburg and Kirchsteigfeld in Potsdam (Germany – figs. 18 & 19) and Borneo and Sporenburg in Amsterdam (Netherlands – fig. 20). Thus through analysis of the use of design codes in England in 5.0 (below), an attempt is made to clarify the problems and potentials of design guidance and to extrapolate lessons of relevance across Europe.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic ‘type’</td>
<td>Design code</td>
<td>Design strategy / code</td>
<td>Local design guide</td>
</tr>
<tr>
<td>Subject matter</td>
<td>Commercial office and public realm</td>
<td>Residential development and public realm</td>
<td>Residential and mixed use areas</td>
</tr>
<tr>
<td>Context type</td>
<td>New build brownfield</td>
<td>Clearance and regeneration</td>
<td>Infill and new build greenfield</td>
</tr>
<tr>
<td>Scale of application</td>
<td>Architecture &amp; landscape</td>
<td>Urban design</td>
<td>Urban design, architecture, landscape</td>
</tr>
<tr>
<td>Governance level</td>
<td>n/a (enterprise zone)</td>
<td>Local</td>
<td>Sub-regional</td>
</tr>
<tr>
<td>Generic vs. specific</td>
<td>Specific</td>
<td>Specific</td>
<td>Generic</td>
</tr>
<tr>
<td>Level of detail</td>
<td>Highly detailed</td>
<td>Broad principles</td>
<td>Comprehensive coverage</td>
</tr>
<tr>
<td>Level of prescription</td>
<td>Highly prescriptive</td>
<td>Advisory</td>
<td>Advisory</td>
</tr>
<tr>
<td>Ownership</td>
<td>Private</td>
<td>Public, quango</td>
<td>Public, local government</td>
</tr>
<tr>
<td>Process or product</td>
<td>Product</td>
<td>Product</td>
<td>Process and product</td>
</tr>
<tr>
<td>Medium of presentation</td>
<td>Traditional</td>
<td>Traditional</td>
<td>Traditional</td>
</tr>
</tbody>
</table>

Goals

<table>
<thead>
<tr>
<th>Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher quality</td>
</tr>
<tr>
<td>Threshold quality</td>
</tr>
</tbody>
</table>

*Figure 17. UK design guidance*
4. Design codes as a tool

4.1 The English pilot programme

No one sets out to create poorly laid out, characterless places of the type discussed in 1.0 (above), yet throughout Europe much of what is built today continues to display these characteristics. In England, for example, recent analysis of new-build housing schemes across the county has revealed consistent failures to deliver even basic design aspirations, such as distinguishing between public and private realms; letting public space and buildings, rather than highways, dictate layout; and taking advantage of the positive characteristics of sites (CABE 2004, 2005, 2007 – figs. 21-23).

Driven by concerns over quality, coupled with a national need to deliver more housing, in 2004 the British Government launched an extensive pilot programme aimed at assessing the potential of design coding to deliver better quality development. This national pilot programme involved the detailed monitoring and evaluation of nineteen development projects over a two-year period (Carmona et al 2006a) and revealed a range of potential benefits of design codes, including:

- Better designed development, with less opposition locally, and a more level playing field for developers
- Enhanced economic value derived from the positive sense of place that better quality design can deliver
- Less uncertainty with the planning process and a resulting positive climate for business investment
- Streamlined regulatory processes, saving time and money for developers and local authorities alike
- A more coordinated development process, built on consensus instead of conflict.

On the face of it, such benefits might seem puzzling when many of the generic development standards used to guide the design of the sorts of sub-standard schemes referred to above and discussed in 1.2 could be described as coding – of sorts. The construction
regulations, highway design standards, density, and open space standards used by many municipalities all fall into this category. These, however, are about achieving minimum thresholds across the board and apply to whole administrative areas, they are what Ben-Joseph (2005) has described as ‘the hidden codes of the city’. Confirming the arguments made above, research has suggested that the slavish adherence to such guidance is a direct cause of much bland and unattractive development (Carmona 2001).

Site-specific design codes, by contrast, are a distinct form of detailed design guidance that stipulates the three-dimensional components of a particular development and how these relate to one another without establishing the overall outcome. The aim is to provide clarity over what constitutes acceptable design quality for a particular site or area. Used in this way, and unlike generic development standards, design codes can provide a positive statement about the qualities of a particular place (fig. 24).

### 4.2 Why choose codes?

In England today, national planning policy requires that “Planning authorities should plan positively for the achievement of high quality and inclusive design for all development” (ODPM 2005: para 34). In the residential sector, the increasing imperative to deliver better quality design has led to a decline in the traditional way of doing business which typically saw developers ignoring local policy and guidance, submitting sub-standard planning applications, then using their often considerable resources to battle their way through the permissive national planning appeals process in order to obtain planning permission (Carmona 2001).

Today, instead, most large-scale residential or mixed-use development proposals are preceded by the preparation of detailed design guidance in order to create the confidence that design quality will be forthcoming. Such guidance may be of several types, for example a detailed masterplan, or a loose development frame-
work followed by more detailed development briefs for each phase of development. Although different, each form of guidance will share many of the same costs and benefits of design coding. The final choice of which form of design guidance to use, is best left to local preference, but findings from the national pilot programme showed that design codes can be distinguished from other forms of detailed design guidance because of their particular ability to:

- Establish high quality design aspirations in a manner that allows their consistent application across successive phases of large development sites
- Provide a robust form of design guidance that, because of its relative prescription, is difficult to challenge at appeal
- Test, develop, and deliver the site-specific vision (usually contained in a masterplan) by designing and fixing the ‘must-have’ design parameters of a scheme
- Create a level playing field for development interests, based on their willingness and ability to deliver high quality design.

Of these, perhaps the key strength of design codes is their ability to coordinate design across the successive development phases of large sites in order to deliver a coherent design vision. As such, they are most valuable when sites are either: large (or multiple smaller adjacent sites) that will develop in phases over a long period of time; in multiple ownership; or likely to be developed by multiple development and design teams.
4.3 Where do codes fit within the development process?

If design codes are the guidance of choice, the next question is how should they operate? Production of a new development involves many disparate processes and design codes may play a role in each:

- **Design processes** – design codes are tools to set the detailed urban design parameters of projects across the different scales of design intervention, from street and block sizes and layouts to landscape and architectural concerns, towards a coordinated place vision.

- **Development processes** – because of the detailed up-front work required for their preparation, the design phase of codes offers an opportunity for stakeholders to explore and negotiate different design options and their associated costs.

- **Planning processes** – the preparation of design codes provides an opportunity for planning authorities to engage directly in the design process, rather than reactively responding to already completed development proposals. They also offer a ready means against which to evaluate and monitor detailed planning applications.

- **Adoption processes** – design codes have a role in the legal adoption by the state of highways, open space, drainage and other infrastructure produced through development projects. They enable these processes to be coordinated with design, development and planning matters at an early stage, thereby avoiding possible conflicts later in the development process.

Through the English national pilot programme it was possible to identify a common set of phases involved in successful implementation of design codes. Although the process is essentially linear, it is often necessary to return to and refine earlier decisions in the light of later information (fig. 26). In summary it incorporates:

1. **Initiating the code** – defining an agreed process and establishing leadership arrangements

2. **Coordinating inputs into the coding process** – the skills, financial resources, and the roles and relationships of various actors who will in turn design and implement the code

3. **Appraising the local context for coding** – including existing policy and guidance or consents already
covering the site, the character of the site, and any existing physical vision such as a masterplan

4. **Designing the code** – devising, structuring, writing and illustrating the content and expression of the code  

5. **Formalizing the code** – giving the code institutional status by adopting for planning, highways or other purposes, or by other means such as tying it to a land sales agreement  

6. **Implementing the code** – using compliance with the code as the basis for selecting design and development teams for individual land parcels, to inform the site design process, and also for assessment and regulation of the resulting proposals  

7. **Managing code compliance** – via monitoring and enforcement processes to evaluate performance of the code in order to refine it, and through use of the code for project aftercare.

The creation and use of a design code also draws from and feeds into the broader development process. In reality the various phases of development do not always follow a neat sequence and every development process will be different, particularly when a pan-European context is considered. Nevertheless, it is valuable to consider coding and development processes together in order to understand how the code can be informed by the wider processes of development. Importantly, code preparation will draw information from other development stages (e.g. masterplanning and community engagement), and likewise, once prepared, the code will feed into and inform later development stages such as parcel (or phase) design and any detailed approvals processes.

*Figure 26. Coding and the development process*
<table>
<thead>
<tr>
<th>Groups</th>
<th>Interests</th>
<th>Stakeholders</th>
<th>Prime motivations</th>
<th>Key potential stakeholder roles include</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coding Team</td>
<td>Land interests</td>
<td>Landowner</td>
<td>To get the land developed and make a profit</td>
<td>Establishing aspirations from the start for design quality, using freehold rights throughout to guarantee delivery against the design code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master-developer</td>
<td>To maximise site potential and thereby long-term profit</td>
<td>Initiating the site-based vision and code design process through appointment of designers, and subsequently assessing parcel development proposals against the code</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Funding agency</td>
<td>To deliver a return on public investment</td>
<td>Using landownership and funding powers to deliver the requisite skills, resources and know-how for a high quality coding process, and effective assessment and enforcement</td>
</tr>
<tr>
<td>Design</td>
<td>Masterplanner /</td>
<td>Within client objectives to</td>
<td>Preparing the masterplan or development framework as a strong vision for the long-term development of a site(s), reflecting any existing policy and guidance, local consensus on the vision and the client’s brief</td>
<td>Preparing the masterplan or development framework as a strong vision for the long-term development of a site(s), reflecting any existing policy and guidance, local consensus on the vision and the client’s brief</td>
</tr>
<tr>
<td>interests</td>
<td>framework designer</td>
<td>deliver a coordinating design vision</td>
<td>Coordinating different interests as a basis to prepare the design code as a means to implement the essential principles contained in the masterplan / vision</td>
<td>Coordinating different interests as a basis to prepare the design code as a means to implement the essential principles contained in the masterplan / vision</td>
</tr>
<tr>
<td></td>
<td>Code designer</td>
<td>To make the design vision deliverable</td>
<td>Developing proposals and achieve consents to deliver on site a development parcel within the masterplan / vision</td>
<td>Developing proposals and achieve consents to deliver on site a development parcel within the masterplan / vision</td>
</tr>
<tr>
<td>Development</td>
<td>Parcel developers</td>
<td>To maximise site potential and thereby profit</td>
<td>Playing a role in design code production, revising and updating existing highways standards as necessary, and assessing and adopting the infrastructure that results</td>
<td>Playing a role in design code production, revising and updating existing highways standards as necessary, and assessing and adopting the infrastructure that results</td>
</tr>
<tr>
<td>interests</td>
<td>Social housing providers</td>
<td>To house social tenants</td>
<td>If involved, developing proposals and achieve consents for the delivery on site of a development parcel – or part thereof – within the masterplan / vision</td>
<td>Establishing aspirations from the start for design quality, using freehold rights throughout to guarantee delivery against the design code</td>
</tr>
<tr>
<td></td>
<td>Parcel designers</td>
<td>Within client objectives to deliver a viable design solution</td>
<td>Creatively interpreting the code and masterplan to develop high quality designs for individual land parcels and their constituent buildings, spaces and areas</td>
<td>Creatively interpreting the code and masterplan to develop high quality designs for individual land parcels and their constituent buildings, spaces and areas</td>
</tr>
<tr>
<td>Public</td>
<td>Planning authority</td>
<td>To protect and deliver complex economic, social and environmental public interest objectives</td>
<td>Establishing aspirations from the start for design quality, using freehold rights throughout to guarantee delivery against the design code</td>
<td>Establishing aspirations from the start for design quality, using freehold rights throughout to guarantee delivery against the design code</td>
</tr>
<tr>
<td>interests</td>
<td>Highways authority / agency</td>
<td>To deliver a safe and efficient movement network</td>
<td>Playing a role in design code production, revising and updating existing highways standards as necessary, and assessing and adopting the infrastructure that results</td>
<td>Playing a role in design code production, revising and updating existing highways standards as necessary, and assessing and adopting the infrastructure that results</td>
</tr>
<tr>
<td></td>
<td>Environment Agencies</td>
<td>To protect local environmental resources</td>
<td>Approving discharge from drainage facilities (i.e. sustainable urban drainage – SUDS), and advice on incorporation in the design code</td>
<td>Approving discharge from drainage facilities (i.e. sustainable urban drainage – SUDS), and advice on incorporation in the design code</td>
</tr>
<tr>
<td></td>
<td>Construction permits / control</td>
<td>To satisfy technical building regulations</td>
<td>Approving parcel proposals against the national building regulations, and advice on incorporation and adaptation for the design code</td>
<td>Approving parcel proposals against the national building regulations, and advice on incorporation and adaptation for the design code</td>
</tr>
<tr>
<td>Wider</td>
<td>Utilities providers (including water)</td>
<td>To establish an efficient and profitable utilities network</td>
<td>Adopting service infrastructure, and advice on incorporation of requirements in the design code</td>
<td>Adopting service infrastructure, and advice on incorporation of requirements in the design code</td>
</tr>
<tr>
<td>interests</td>
<td>Community</td>
<td>Local politicians</td>
<td>To satisfy statutory obligations whilst protecting local voter interests</td>
<td>Establishing design aspirations in advance of development interest, approving masterplan / vision and design code and delegating authority to officers to manage the delivery</td>
</tr>
<tr>
<td></td>
<td>interests</td>
<td>Existing community</td>
<td>To protect and enhance local amenities (and often property values)</td>
<td>Engaging in the masterplanning / vision making process through serious and significant involvement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Future occupiers</td>
<td>To meet future community needs</td>
<td>Involvement through normal planning processes and engagement in long-term management and maintenance processes on the basis of the design code</td>
</tr>
</tbody>
</table>

*Figure 27. Roles and motivations of key stakeholders within a typical coding process*
4.4 The stakeholders, roles and motivations

The central role of the design code within the development process means that it brings together a wide range of individuals and organizations with a stake in the development outcomes. These can be divided into two groups: the ‘coding team’, which comprises the full range of professional stakeholders involved in producing and using the code, and ‘wider interests’, such as the local community. The coding team can be broken down into four sets of interests: land, design, development and public interests. Again, local practices will vary across Europe, but fig. 27 illustrates a typical set of roles, even if titles and relationships vary.

The English national pilot programme suggested that understanding the intersecting roles and primary motivations of these groups is the key to forging a successful coding process. Individually they will vary, but collectively motivations will encompass:

- The delivery of high quality design
- Optimizing investment returns – a necessary pre-condition
- Creating a predictable and efficient development process – to facilitate investment
- Delivering planned development capacities – e.g. determining densities, use mixes, etc.
- Achieving key technical design parameters – whilst avoiding their over-dominance
- Establishing consensus over the development.

Arguably, therefore, to succeed, design codes will need to address these collective motivations that – it is hypothesised – will be remarkably consistent across the continent, at least as aspirations, if not (yet) as achievements. But not every scheme that is subject to a design code will follow the same process, and the roles of key stakeholders will vary correspondingly. For example, whether public (see Swindon example above – fig. 24) or private (see Newhall example below – fig. 31) sector stakeholders lead the process may determine who takes which role within the coding team. Certain roles can also be combined in single stakeholders, for instance: municipalities with appropriate skills in-house may take on the role of code designer; landowners may act as the master-developer; or the master-developer may subsume the role of parcel developer.

4.5 Seven fundamentals of coding

The national pilot programme revealed seven further fundamental factors for the success of coding projects. These begin and end with a commitment to design quality and have broad application across Europe:

Urban design first: The achievement of good urban design should be the primary objective of all involved in the preparation and use of design codes. Increasingly, a compatible range of urban design principles are being advocated in practice manuals across Europe (e.g. European Union 2004). These look beyond narrow debates about architectural aesthetics, and also reject purely technical design solutions. The goal of sustainability in particular needs to inform almost every aspect of code production, from considerations of density and
### Figure 28. Design codes, building on the spatial vision

<table>
<thead>
<tr>
<th>Scales of action</th>
<th>Masterplan</th>
<th>Design code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlement pattern</td>
<td>Major infrastructure, Structure planting, Water management, Road / cycle network, Open space network, Character areas</td>
<td>Major roads, bridges, public transport network, design principles for combined heat and power systems, Continuity, species, relation to topography, Drainage, recycling, reed beds, water features, Road types, hierarchies, dimensions, capacities &amp; characters, cycle network continuity, Standards, open space typology and features, connectivity, Centres and sub-centres, walkable catchments, parcel size and sub-divisions,</td>
</tr>
<tr>
<td>Urban form</td>
<td>Connections, Street network, Block pattern, Building lines, Plot form, Building location, Density contours, Views and vistas</td>
<td>Edge treatments, boundaries, Urban grain, grid types, connectivity, Block form, privacy distances, interiors, Frontage continuity, set backs, Plot size, width, adaptability, Orientation, position on plot, overlooking and overshadowing, natural surveillance, Plot ratios, dwelling per hectare, intensification nodes, Relation to topography, corridors, backgrounds,</td>
</tr>
<tr>
<td>Urban space</td>
<td>Open space, Public space, Carriageways, Cycle and footpaths, Public/private space, Private gardens, Play spaces, Parking</td>
<td>Standards, types, forms, layout, access, landscape, planting, management, Patterns, types, enclosure ratios, forms, layout, connection, uses, management, Road tracking, junctions, road specifications, traffic calming, services routing, servicing, Path spec., cycle tracks, paving, kerbs, gutters, road markings, other details, Principles for courtyards, mews, cul-de-sacs, covered streets, arcades, colonnades, Standards, back gardens, front gardens, roof gardens, landscaping, Standards, types, equipment, management, Standards, car parks, parking courts, on-street types and treatments, overlooking, lighting, landscaping,</td>
</tr>
<tr>
<td>Local character</td>
<td>Building forms, Building types, Building frontage, Mix of uses, Townscape features, Heritage assets, Street trees, Soft landscape, Public realm</td>
<td>Bulk, massing, height storey height, forms building envelopes, plan depths, adaptability, Detached, semi-detached, terraced / town house, flats, fronts and backs, Active frontage, entrance frequency, architectural styles, features, proportions, rhythms, expression, window / wall ratios, materials, colours, balconies, porches, signage, shopfront design, Distribution, proportions, mixing – vertical, horizontal, Eave lines, rooflines, chimneys, corner treatments, landmark / background treatments, focal points, advertising, Integration, preservation, management, Species, numbers, placements, Standards, planting species, biodiversity, lawns and verges, planting beds, planters, Street furniture, bollards, boundary treatments / materials, public art, fountains, paving materials, colours, utilities equipment, street lighting, amenity lighting, bus shelters, CCTV, public toilets, cycle storage and parking,</td>
</tr>
<tr>
<td>Technical factors</td>
<td>Environmental standards and energy efficiency, Access standards and disabled parking, Refuse storage and recycling, Tenure mixing, affordable housing, Management and maintenance issues</td>
<td></td>
</tr>
</tbody>
</table>

*Note: It will not always be necessary to include all these elements in a particular masterplan or design code*
mixed-use to the use of particular building materials or the choice of species in landscape design. It also implies a concern for social and economic sustainability, where good quality urban design has an important role to play in promoting social inclusion and economic revitalization across spatial scales.

**Setting quality thresholds:** Design codes should establish the essential unifying elements of ‘place’, encouraging and enabling interpretation around that theme. First, they can set clear thresholds below which quality should not fall by providing both the parameters for design and the criteria against which formal assessments of the quality of proposals can be made. These criteria need to be expressed with a clarity and comprehensiveness that will allow proposals to be assessed in an objective manner. Second, codes can inspire those who design with them to strive for better design than they otherwise would do. Just as the constraints and opportunities of the site or the clients’ brief provide a focus around which designers will creatively develop proposals (RFAC 1994: 69), so should the content of design codes, providing the freedom to innovate within the clearly established and unifying parameters of place.

**Investing up front:** The preparation of design codes involves a significant up-front commitment of time and resources by all parties. In many European countries today, code or no code, such an up-front investment is to be expected for the types of major development proposals for which design codes might be used. The English national pilot programme suggested that design coded schemes enhance sales values and increase land values which more than compensate for the additional resources required during the design process. For the public sector, many potential ‘sticking-points’ will be resolved during the coding process that would otherwise require negotiations during the processing of the planning application. Codes simply re-distribute the time and resources required from both the public and private sectors – effectively front-loading them – rather than significantly adding to them.

**Rules for delivery that build upon a spatial vision:** Design codes are effective tools to help interpret, articulate and deliver the design vision expressed elsewhere, typically in a masterplan or development framework. As such, codes need to be built upon the firm foundation of a robust spatial vision that has been tested for its technical and financial feasibility. Usually the vision will be prepared for a particular site, but sometimes it may apply to a wider area containing a number of development sites. Design codes themselves vary considerably along a continuum from those that significantly develop the core urban design principles of a spatial vision that otherwise remains largely conceptual, to those that only express (in a technical sense) the detailed design principles that are already established in the vision. Codes are equally valid at all positions along the continuum, whilst the level of detail and prescription across codes, or from coded element to coded element, will be a matter for local decision (fig. 28).
A collaborative environment and a partnership of interests: A strong commitment to collaboration between partners and within organizations is a prerequisite for successful and efficient coding. Designs of very different character and quality can still be produced using the same design code, emphasising the critical importance of other factors as well, namely the quality and commitment to achieving excellence of all members of the coding team, and the resources at their disposal to secure this. Critical to the success of such a partnership is a core three-way relationship between the key public sector, land and the design interests (fig. 29). If a strong three-way relationship can be forged early on, then a commitment to the design code can be developed and maintained across these stakeholders, thus obviating any negative external pressures later in the process.

The importance of clear and effective leadership: Clear leadership is critical to effective coding, for keeping up the momentum and making decisions. More often than not, successful examples of coding are characterised by one party or another being strongly motivated to achieve quality, and acting in effect as a design champion. This leadership can come from landowners, master-developers, local authority officers, funding agencies or code designers, or a combination thereof. Political leadership is also required. Involving key local political decision-makers early within the coding process can help to gain political support, lead to a smoother planning process, and will give local politicians the necessary confidence to delegate decision-making authority to their professional advisors on the basis of the agreed design codes.

No substitute for skills – a multi disciplinary approach: Design codes require the exercise of advanced design skills throughout the process of their preparation and use. Unlike other processes of development, coding distributes the creative input across three phases of design (fig. 30). The quality of the development is dependent upon the quality of the area or site-based spatial vision, the quality of the code itself, and the quality of the parcel or scheme design. This compares favourably with other design intensive approaches such as development based solely on a detailed masterplan where the design work is split between two phases of design.
Across Europe the availability of skills to prepare design codes and other forms of detailed guidance will vary considerably. HOPUS has revealed advanced skills in countries such as Germany and the Netherlands, emerging skills in countries such as the UK and Italy, and a skills gap in countries such as Poland and Portugal.

4.6
To code or not to code?
Throughout the national pilot programme in England, arguments for and against the use of design codes raged in the architectural and development industry press: that they would stifle design creativity; be excessively bureaucratic and restrictive; and only deliver traditional design solutions (see Carmona 2009). Just like any other form of detailed design guidance, if design codes are poorly designed, or inappropriately used, then they may be part of the problem, and not the solution. However, experience elsewhere in the world (see Carmona et al 2006b: 232-234) suggests that these misconceptions have little basis in fact.

Used correctly, codes have a particular role to play in helping to deliver design quality for types of development – particularly large-scale predominantly residential developments – where it has typically been lacking in the recent past. The seven fundamentals discussed in 4.5 (above) relate directly to design coding, but also, in their essence, to other forms of design guidance. Design codes are not alone as tools with a role to play in enhancing design quality, and are certainly not appropriate for all forms of development. However, where they are appropriate, the evidence now suggests that they can make a real contribution to raising the bar and delivering a better quality built environment (fig. 31).
A story to conclude

5.1 A simple code

In 1.2 (above) it was argued that our love for, and obvious ability to implement, crude development standards might be turned to advantage, through adopting instead a simple set of generic rules that focused on getting the fundamentals of urbanism right.

The 2009 URBACT annual conference took participants to Stockholm. Stockholm, like all large European cities has its fair share of suburban sprawl; sprawl which is largely the same as anywhere else in Europe. But Stockholm is a city of islands, and in places, this waterscape is used to great advantage to give the suburban landscape a more distinct character, Hammarby Sjöstad is one of these and illustrates how such a set of simple but fundamental rules might vary remarkably little across Europe. Developed with the countries represented in HOPUS in mind, the nine rules apply to Stockholm as well. Taking each in turn:

1. **Streets should form a continuous urban network with all streets joining at least two others:** The street network is well connected, direct and legible, with streets forming a grid that connects the lakeside to the development’s main spine along which a tram and bus routes run. To aid way finding, streets are punctuated by a series of local (but subtle) landmark buildings, or terminated by more dramatic landmarks situated in areas that surround the development; a church, a chimney, etc. (fig. 32).

2. **Streets should be designed for a maximum vehicle speed of 30Km per hour:** Streets are short,
narrow, lined by parking and have regular turnings, all of which clearly identifies to drivers that speeds should be kept low. Only on the main spine is there potential to drive faster, although there, regular pedestrian crossings, turns and traffic calming measures have much the same effect without the need for signage (fig. 33).

3. **Every street and / or building block should host at least two (preferably more) major land uses:** The development is truly mixed use, featuring a wide range of commercial uses, cafes and restaurants, local shops, and a full range of community facilities, including schools, a library, sports facilities (internal and external), play areas, health facilities and a church. Almost all blocks have a mix, and typically ground floor space is flexibly designed so that uses can come and go without affecting the overall urban quality of the street space (fig. 34).

4. **Buildings should face public space and create a coherent, continuous, building line:** The urban feel is maintained by the continuous street wall that establishes a strong building line and a series of well-defined, well-overlooked urban street spaces that feel safe, well used and crime free. Building heights vary from four to eight stories, with street widths set appropriately to maintain the sense of enclosure (fig. 35).

5. **Blank facades at street level should not be allowed:** The blocks themselves are lined with attractive, clearly contemporary buildings, exhibiting a range of styles and treatments whilst avoiding prima donnas. Ground floors are often active or alternatively carefully landscaped and designed to give a sense of the activity inside, whilst maintaining privacy (fig. 36).

6. **Space for private front planting and / or street trees should be provided:** The whole development is exceptionally well landscaped, both in communal and private areas. Although the density of the scheme means that few private front gardens are possible, careful landscaping of the public/private interface reinforces the character of individual units,
whilst the whole development is interspersed with a network of green pedestrian only routes with very high quality landscaping. The best of these, along the canal and the lake provide an innovative and continuously changing set of edge treatments that play a large part in establishing the unique character of the development (fig. 37).

7. **Setbacks and front gardens, should never be covered by any more than 30% parking:** Parking is never allowed to dominate the scheme, and is handled by a series of discrete parking courts, underground parking, on street parking and a car pool to which all residents have access. The on street parking does not detract from the street quality because of the high quality public space within which it is set.

8. **Existing trees, landscape and natural features should determine site layout and character:** Hammarby Sjöstad integrates the natural landscape and features in spades, using the lake and canal as primary structuring features of the development, whilst preserving trees, higher ground and other natural features in order to give character to the public and private spaces of the scheme, and to inspire the creative talents of the development’s architects who have had something to respond to in the absence of any built context.

9. **Design to reduce, reuse and recycle natural and energy resources:** In essence, the development meets every urbanism rule above, and does this whilst adopting the most up to date sustainable development strategies and technologies, many of which are subtle and do not unduly intrude on the qualities of place that give Hammarby Sjöstad its character. A critical initiative is the Glass House, an environmental education centre and resource for residents to encourage and support them into leading more sustainable lifestyles.

Sitting on the Hammarby Lake to the south of the city, the development is suburban in location, yet has achieved an outcome that is urban in nature in the sense that it features the network of clearly urban streets and spaces,
attractive blocks and high quality public realm that Europe is rightly famed for.

Critical to its success has been the presence of a clear hierarchy of design guidance to establish a vision for the scheme and to manage and control its delivery. This has required strong leadership from the municipality across every stage of the development process (http://www.cabe.org.uk/case-studies/hammarby-sjostad/design). In particular, the masterplan was led by the City Planning Bureau. Architects from the private sector have then been appointed to ‘test’ each phase of the masterplan as it comes forward for development, whilst the city has evaluated these proposals (three or four ‘sketch’ schemes for each phase from different designers) and assimilated the best ideas into a refined masterplan. Design codes have subsequently been prepared for each of these phases or sub-districts in order to ‘fix’ the key design parameters of the masterplan, and this forms an appendix to the development agreement between the city (also the major landowner) and each development partner. Finally each code has been adopted for planning purposes and becomes in effect the delivery tool against which successive parcels of the development have been assessed and controlled.

5.2
A long-term investment, but we need to start somewhere!

The experience at Hammarby Sjöstad demonstrates that high quality outcomes are not delivered by accident. As argued in 2.3 (above), to maximise the potential of delivering such outcomes will require:

- A broad conception of design, extending beyond mere ‘aesthetics’ and basic ‘functional’ considerations to include a concern for urban design – broadly defined – and sustainability – economic, social, and environmental.
- An approach to design informed by context, based on a deep understanding of the character and qualities of areas and sites and on public / user involvement in developments.
An integrated hierarchy of design guidance extending from broad strategic city-wide design principles and policies, to a clear vision for large-scale projects, to detailed design guidance for particular sites and development opportunities.

A public sector urban design / planning team with the means and capabilities to: engage in the design / development process by proactively preparing policy and guidance frameworks, incentivise key development opportunities, and respond positively to development proposals.

This requires both leadership, acceptance of the value of better design, and the necessary resources to deliver on such an agenda. Getting the resources in place is a long-term process, as is winning over hearts and minds across stakeholder groups. Where these do not exist, as was predominantly the case in some countries represented within the HOPUS group and intermittently within all, securing high quality outcomes is undoubtedly harder. Hammarby Sjöstad shows us what can be achieved. It demonstrates how a sophisticated site-specific hierarchy of design guidance can (as part of a wider process) help to deliver superior design and sustainable outcomes. However, it also reveals that much of the success can be put down to the application of a remarkably simple set of urbanism rules or principles that will be applicable with minor modification across much of Europe.

Based on the lessons of the English Pilot Programme discussed in 4.0 (above) such principles would ideally be added to, moulded and re-cast in the light of the spatial design vision for each development site, based on a full understanding of local contextual factors, perhaps in the form of detailed site-specific design codes. However, where the skills and resources are lacking for the adoption of such a sophisticated (and potentially costly) approach to design intervention, it may be that the adoption of simple municipality or city-wide codes reflecting the type of urbanism fundamentals represented in 1.2 (above) will be the next best thing and the first step on the road to a more design-led approach to development.

If Europe is to retain its reputation for possessing a high quality built environment and reinforce its credentials for delivering a high quality of life and a sustainable way of living, then the investment needs to start somewhere. The sooner the better!

6. References


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