

Design Coding and the Creative, Market and Regulatory Tyrannies of Practice

by **Professor Matthew Carmona**
Lead Expert of the Working Group HOPUS

■ Design coding is the focus of the HOPUS consortium within the URBACT programme. This article reflects on one of the inspirations for HOPUS, namely the UK pilot programme that evaluated the use and effectiveness of design coding as a design/development tool. It focuses on the roles and relationships between the different stakeholders in the coding process, and compares the pre-conceptions about coding with actual experiences in use. The article reveals the gulf in professional cultures that impact on the development process. This is underpinned by the continuing struggle between creative, market-driven, and regulatory modes of praxis. The article is polemical in that it points the finger at approaches that potentially undermine the creation of the built environment as a collective endeavour. It is also propositional in that it draws from the evidence-base to propose that design coding could, if used correctly, positively regulate the essentials of urbanism, whilst leaving room for design creativity and enhanced market value. HOPUS will help to demonstrate the potential of such methods across Europe.



The Three Tyrannies

The built environment is a collective endeavour, influenced by a diversity of stakeholders, each with a role to play in shaping what we see and experience as the architecture, urban form, public space and infrastructure that constitutes the urban environment. Each will have their own motivations informing the particular role they play in shaping the built environment, and these will determine the relative priorities they place on different outcomes: aesthetic, economic, social, environmental or functional.

In a typical development process developers have the real power to shape the built environment through their ability to fund development. The public sector has power over some aspects of design through their regulatory powers, whilst designers have wide ranging responsibility but little real power. Instead, they gain their influence

through their unique professional skill (to design) and professional / technical knowledge. The community only has indirect power through the right to complain to those with regulatory authority, whom (usually) they elect.

In reality individual development projects will reflect different relationships between the stakeholders depending on the relative power positions in each case and in each country. Nevertheless, the idea of conflicting and varied power relationships, and the notion of multiple stakeholder aspirations, can each be understood in terms of the modes of praxis from which they emerge. These boil down to three distinct traditions – creative, market-driven, and regulatory – each with a major impact on the built environment as eventually experienced.

At their most extreme, each can be characterised as a particular form of “professional tyranny” that has the potential to impact negatively on the

design quality of development proposals. The word tyranny is favoured because it encapsulates a single-minded pursuit of narrow ends in a manner that undermines, or oppresses, the aspirations of others. Although actual practice is not typically situated at the extremes, there is value in exploring these positions which are extensively discussed in the literature and which, it is contended, to greater or lesser degrees underpin all practice.

The Creative Tyranny

The first tyranny results from the fetishising of design where the image, rather than the inherent value – economic, social or environmental – is of paramount concern, and where the freedom to pursue the creative process is valued above all. Such agendas are most closely associated with the architectural profession, often under a guise of rejecting what is sometimes seen as a further tyranny, that of “context”. Perpetuated by the dominant model of architectural education across Europe, and by the continuing impact of Modernism, many designers see all forms of regulation as limiting their freedom for self-expression.

The Market Tyranny

A second tyranny reflects an argument that the market knows best, and what sells counts. In the UK, this argument has been made most often and most vociferously in connection with the speculative housing market, where housebuilders have long campaigned for a freehand to use their standard housing designs and layouts on the basis that they know their market. Thus design quality is perceived by developers as a complex mix of factors which include dominant economic aspects of supply and demand revolving around costs and sales potential – buildability, standardisation, market assessment, customer feedback – and within which visual or spatial quality is secondary. In this market, architects have often been cut out altogether from the development process.

The Regulatory Tyranny

For some, the final tyranny, that of regulation, can be analysed (and challenged) in terms of the political economy it represents, namely as an attempt to correct market failure. For many regulatory economists, however, no market failure existed in the first place and standards and codes simply create barriers to change and innovation. Encapsulating these positions and distorting in the process the workings of a “natural” market might be the reactionary local

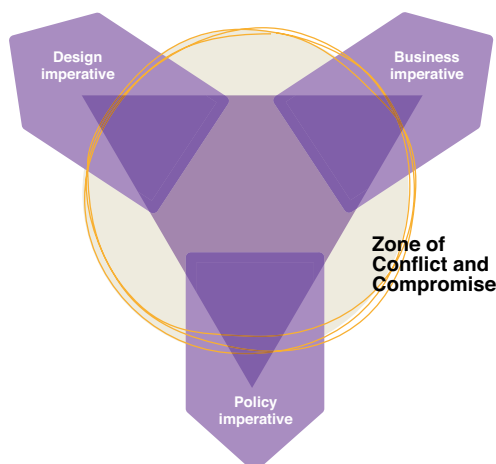
politician proclaiming “we know what we like and we like what we know”, or the unbending council technocrat determined that “rules are rules”. The tyranny also reflects a concern that the public sector’s real power stems from the right to say “no” to development proposals via the series of overlapping regulatory regimes – planning, building control, conservation, highways adoption, environmental protection, etc. – whilst the power to make positive proposals is limited by the fact that typically it is the private sector with access to resources.

A Zone of Conflict and Compromise

The tyrannies represent extremes, perhaps even caricatures, but arguably they are also, to a greater or lesser extent, reflections of realities that practitioners from whichever side of the tyranny trinity are repeatedly faced with during the development process. They result from profoundly different motivations, respectively: peer approval; profit; and a politically defined view of public interest, but also from very different modes of working and associated professional knowledge fields, respectively: design; management / finance; and social / technical expertise. They have long driven practice and debate in the UK (and elsewhere in Europe) whilst the result has often perpetuated profound and ingrained stakeholder conflict within the development process and led to sub-standard development solutions.

At the heart of each is also a different and overriding imperative, respectively to achieve an innovative design solution (within the given constraints – site, budget, brief, etc.), to make a good return on investment (in order to sustain a viable business), and to satisfy a defined range of public policy objectives. As these are often in opposition to each other, the result will be a three way tug of war, with the central ground stretched thinly within what can be characterised as a zone of conflict and compromise (see Fig. 1).

Figure 1 : Zone of conflict and compromise



The Revival of Design Coding in England

Reflecting this history, for a long time, the issue of design quality was either given lipservice to, or actively excluded from the political agenda (as was the case in England in the 1980s), resulting in open inter-professional conflict, sub-standard design outcomes, and relatively little interference from above. More recently, driven by the global movement of design up the political agenda, increasingly local and national administrations have been searching for the right tools through which to overcome the process-based tyrannies, and deliver better design solutions.

In part this reflects the new positions of architecture and urban design as weapons in the battle of global and local inter-city competition. But reflecting this competitive city ethos, attention and resources have tended to be focused on urban centres, rather than in predominantly residential areas, or on housing development. Yet it is in these areas where the standard of design is often open to greatest criticism. In the UK, the need to deliver large new housing allocations whilst avoiding the revolt of suburban and rural England, led the Government to review the potential of design coding to deliver better design and a smoother regulatory process.

Coding, Nothing New

Coding of one form or another is nothing new in England, or elsewhere. Different forms of regulation of the built environment have occurred throughout recorded history, with types of coding used as far back as Roman times. Today, many of the development standards used to guide the design of buildings and the urban environment can be described as coding, of sorts, controlling almost every aspect of the built environment. However, most of these are limited in their scope and technical in their aspirations and are not generated out of a physical vision or understanding of a particular place or site.

The evidence overwhelmingly suggests that coding in the form of non site-specific development standards is unlikely to provide the answer to delivering better urban design. Moreover, faced with a perceived increase in regulation of different types, architects and developers have become increasingly concerned about the impact this is having on their room to manoeuvre; or their space to deliver, respectively, creative and profitable solutions. The question, therefore, is what is a good code and can such a tool be used to deliver public interest objectives such as more housing and better urban design, whilst still allowing for creative architectural design and enhanced economic value (the preoccupations of the other two legs in the tyranny trinity)?





So do Codes Hold the Answer?

For Ministers in England, design codes seemed to hold the promise of a new and different approach. An initial literature review and scoping study established that design codes were a distinct form of detailed design guidance that stipulate the three dimensional components of a particular development and how these relate to one another without establishing the overall outcomes (see doi:10.1016/j.progress.2006.03.008). The intention of design codes was to provide clarity over what constitutes acceptable design quality for a particular site or area, thereby (theoretically) achieving a level of certainty for developers and the local community, and, within an appropriate planning framework, helping to improve the speed of delivery. Used in this way, the intention was to provide a positive statement about the qualities of a particular place.

As such, design codes were seen as site-specific tools, typically building upon the design vision contained in a masterplan, development framework or other site or area-based vision. The codes themselves focus on urban design principles aimed at delivering better quality places, for example the requirements for streets, blocks, massing and so forth, but may also cover landscape, architectural and building performance issues such as those aiming to increase energy efficiency.

There followed an extensive pilot programme to fully test the potential of design coding, including the detailed monitoring and evaluation of nineteen case studies across England (see <http://www.communities.gov.uk/publications/citiesandregions/designcoding2>). The announcement of the pilot programme brought with it an immediate and negative reaction in the professional press reflecting a range of reoccurring critiques. These directly attacked what the writers saw as an attempt to extend the tyranny of regulation through the introduction of design coding; and in making the arguments directly reflected creative and market tyranny perspectives.

Summarised, a first set of critiques focused on design outcomes and suggested that design codes would:

- A.** Suffocate the creativity of designers by reducing their scope to innovate;
- B.** Deliver only traditional design solutions through an in-built presumption against contemporary design;
- C.** Promote formulaic design solutions through

the delivery of tick-box architecture and standards-based urbanism.

A second set of critiques focused more on process-related issues with an economic impact on the development process. They concluded that design codes would:

- D.** Lead to excessively bureaucratic decision-making with less discretion and more paperwork and delay;
- E.** Result in a cost-cutting culture through the cutting out of designers from the development process;
- F.** Result in very restrictive and prescriptive planning through which the freedom of the market would be curtailed.

A New Evidence-Base

During the two years that it ran, the pilot programme delivered a substantial evidence base on which to base informed judgements about the potential or otherwise of design codes. Space only permits an overview of key findings here.

Headline Findings

The research revealed that as a particularly robust form of design guidance, design codes can play a major role in delivering better quality design, and this should be the major motivation for opting to use them. They do this by “fixing” and delivering the “must have” urban elements that form the common and uniting urban framework for schemes.

They also have a significant role to play in delivering a more certain development process, and – if properly managed – can provide the focus around which teams of professional stakeholders can coordinate their activities, delivering in the process a more integrated and consensus driven development process. For this, however, they require a significant up-front investment in time and resources from all

parties, although the evidence suggested that for commercial interests this was compensated for by the enhanced economic value that better design and a stronger sense of place brought to the resulting developments.

The research revealed that the use of design codes made no discernable difference to the length of the formal planning process (a key

objective of Government was to streamline planning). However, as pay back for the up-front investment, a streamlined process of applying for and obtaining reserved matters consents (for the detailed design of successive phases of the development) was apparent, following the granting of an initial outline permission for the development as a whole.

The research concluded therefore that – in appropriate circumstances – design codes are valuable tools to deliver a range of more sustainable processes and built development outcomes. However, design codes are just one possibility amongst a range of detailed design guidance options and it is important to understand where they should and should not be used. In this regard, codes seem most valuable when sites possess one or more of the following characteristics:

- Large sites (or multiple smaller related sites) that will be built out over a long period of time
- Sites in multiple ownership
- Sites that are likely to be developed by different developers and/or design teams.

This reflects the key benefit of design codes, namely their ability to coordinate the outputs of multiple teams and development phases across large sites in order to realise a coherent design vision. Design codes can provide an integrating focus through which to bring together the various processes and those involved in them. They do this because their preparation necessitates the engagement of all creative, market and regulative parties early in the development process. The detailed discussions that result help to resolve issues that otherwise typically cause tensions later in the process and undermine the quality of the built outcomes.

However, the research also showed that design codes do not sit in isolation and are certainly no panacea for delivering better quality development. Moreover, if the commitment to their production and use is lacking amongst any key stakeholders, codes can become a divisive force and an expensive waste of resources.

The research demonstrated that design codes are not without their problems – logistical, resource, skills and time-based. Just like any other form of detailed design guidance, if design codes are themselves poorly designed, or inappropriately used, they may be as much part of the problem as the solution. But despite this, evidence from across the pilot programme suggested that the arguments against codes are largely based on a range of common misconceptions with little basis in fact.

Rebutting Creative Tyranny Critiques

Taking, first, the group of critiques that broadly reflect a creative tyranny perspective (A to C above); far from stifling the creativity of designers, design codes were shown to have the potential to increase the creative input into the development process. Thus whereas much volume house building in the UK has occurred without the input of architects and urban designers, design codes and the masterplans to which they relate cannot be prepared without these skills. Moreover, although some design codes strongly favour traditional architectural design, many others demonstrate that coding is equally suited to deliver innovative contemporary housing design.

The research suggested that design codes encourage the delivery of a stronger and more unified sense of place, including architectural variety within a theme, but also, critically, they require that developers break away from standard house types and local authorities from crude local development standards. They do this by encouraging stakeholders to think together about each development in its entirety as a unique place, then fixing this through the codes, rather than as a series of separate and discordant parts.

Rebutting Market Tyranny Critiques

This integration of activity extends to the second set of critiques (D to F above) that broadly reflect a market tyranny perspective. Here the research revealed that rather than adding to and complicating the bureaucratic burden, if used correctly, codes can clarify regulatory processes and reduce the uncertainty faced by developers. In part this is because codes also reduce the discretion available to regulators by establishing and tying down the critical design components of schemes well in advance of detailed planning applications being received. In turn, this considerable investment up-front in the design process ensures that far from representing cost-cutting devices, design codes cannot be prepared without a significant injection of design time, skills and resources early in the process alongside the positive engagement of key stakeholders. As such they add to, rather than reduce, the overall design input into schemes, and require additional resources to fund this.

In fact design codes require the exercise of advanced design skills throughout the process of their preparation and use, and unlike other processes of development, coding distributes the creative input across three distinct phases of

design – establishing the spatial vision (typically a masterplan), coding that vision, and designing each parcel as they come forward against the code.

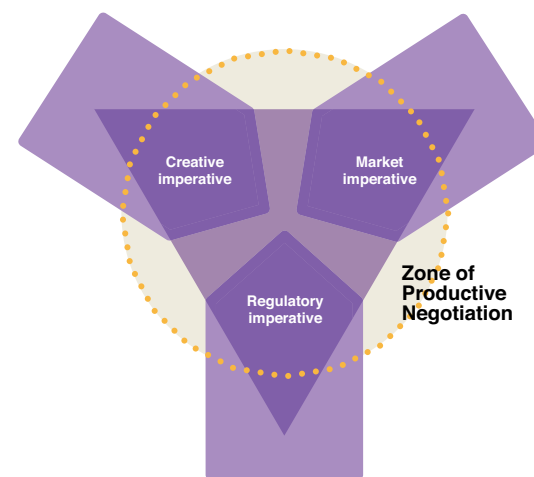
Avoiding a New Regulatory Tyranny

This does not mean, however, that codes are uniformly prescriptive, restricting in the process the designer and / or developer's room for manoeuvre (a major concern of both creative and market critics). The case studies suggested that local circumstances and the vision of those responsible for each code's design will determine the precise characteristics of design codes. For example, the case study code documents varied in length between 25 and 100 pages, and whilst some aspects were highly prescriptive (e.g. building lines), others were dealt with far more flexibly (e.g. architectural treatments). The extent to which codes are capable of modification as successive phases of a development comes forward is also a matter for local decision, with processes of code review and the use of code supplements commonly utilised in order to give greater flexibility between phases and to enhance those parts of codes that have proved less successful.

Overcoming the Tyrannies

What is universal, is the potential for code production to act as a collaborative process, in so doing challenging and potentially overcoming the types of praxis that underpin the three tyrannies. Thus the pilot programme revealed that coding brings together a wide range of individuals and organisations with a part to play in delivering development.

An early and vital role of any coding process will therefore be to put together the right team with the right skills and resources and commitment to the use of a coded approach. Experience shows that this process actively avoids selection of stakeholders who are stuck in the sorts of confrontational mindsets discussed above. Instead, stakeholders were selected who were willing and able to negotiate their role and contributions to the development process within the confines established by the code. In this regard, design codes seemed to establish a zone within which productive negotiation (rather than compromise) could occur, internalising this within the development team, rather than externalising it as open conflict. Effectively tyranny had been substituted with understanding (at least in part) and a desire to address collective aspirations (Fig. 2).



Conclusions

No one sets out to create poorly laid out, characterless places, to exclude good designers from the residential development process, or to prevent developers making a reasonable return on their investment. Despite this, the evidence suggests that too much of what has been built in the recent past has continued to display the former characteristics, whilst the latter perceptions remain widespread amongst affected groups. The extensive testing recently undertaken in England found that site-specific design codes have great potential to assist in overcoming these problems, with potential benefits that include:

- Better designed development, with less opposition locally, and a more level playing field for developers
- The enhanced economic value that a positive sense of place and better quality design can bring
- A more certain planning process and an associated more certain climate for investment
- A more coordinated development process built on consensus instead of conflict.

The findings suggest that in regulating future urban development, design coding does not stifle the potential for creativity and value generation, and may even enhance these critical contributions to place-making. This is because, if used correctly, codes allow the essentials of good urbanism to be regulated, raising market value in the process whilst still leaving room for design creativity.

In examining the potential of different forms of design coding across Europe, HOPUS will attempt to determine the use and value of such tools in the hugely different design, development and regulatory contexts that make up the European Union. Discussions through HOPUS have revealed that many European countries face the same sorts of practice-based tyrannies that have predominated in the UK. It is hoped that the project will be able to provide some practical advice about if and where design coding should be used, and about how the use of such tools can be optimised across Europe. ●