The value of urban design

CABE undertook the research begin to give substance to one of its core beliefs: that good design has an impact not just on the functional performance of buildings (including productivity of staff, maintenance and energy costs) but also on wider social value. Over the next couple of years, CAVE will be working with different organisations, including HM Treasury, to help demonstrate the wider value of investment in high quality design.

Value is the watchword. There is plenty of scattered evidence available to suggest that good architectural (and urban) design adds value in various ways. Preliminary findings of the London-based School Works project, led by the Architecture Foundation with CAPE input, suggest that wider corridors can noticeably reduce conflict. Refurbishment of the Holly Street Estate in Hackney has led to a fall of a third in visits to the local GP surgery. In hospitals, wards configured to give good natural light and views out have generally quicker patient recovery times. The award-winning new Peckham Library is bursting with enthusiastic youngsters. One of CAVE’s priorities is to collate all this evidence – a task currently being undertaken on our behalf by the Bartlett School of Planning at the University of London. We should then have a much clearer picture of what evidence exists and where the gaps are.

The Value of Urban Design was a piece of primary research to start to fill in one of the obvious gaps - a hard nosed assessment of what good urban design gives back to various stakeholders, from investors to casual users. The aim of the research was to start, by means of an analysis of selected commercial developments, to provide evidence of whether, and how, good urban design added economic, environmental and social value – and then to ask who benefited from that value and how greater value might be released. The underlying expectation was that by providing evidence to back up what is already known intuitively about the benefits of well-designed spaces and places, we would encourage both private and private sectors to invest adequately in high-quality urban design.

The study was undertaken by a team led by Dr Matthew Carmona at the Bartlett. The researchers reviewed UK and foreign literature and quantitative data on the value of urban design (in itself an exercise of some use (but predominantly office) developments in Manchester, the West Midlands and Nottingham. Each development was assessed against seven criteria covering economic viability, social benefit and environmental support, all taken directly from By Design, the Government’s companion guide to PPG1.

In each of the projects, the researchers broke down a mix of hard and soft data against the seven criteria, to produce a score out of 35. To illustrate that we were not being design zealots, we asked investors, developers and the local authority to score the scheme at the same time, with the same criteria. Those results are included in the full report. In some cases, there were differences between our views and those of the developers, particularly where the developers were still sales agent for the scheme. But in general perceptions of success and failure were broadly similar.

In brief, the researchers findings were as follows:

Castle Wharf, Nottingham: Score 29/35
This was the better of the two schemes in Nottingham, a successful development that attracts users late into the evening. Situated on a restored area next to the canal, it comprises a mixture of leisure development, some offices, and a court building.

Standard Court, Nottingham: Score 14/35
This less successful development, based around the redevelopment of a disused hospital, is close to Castle Wharf. The scheme is poorly used despite a conscious attempt to create a public arena.

Brindley Place, Birmingham: Score 29/35
This scheme (the highest scoring one) was considered a highly successful piece of urban design, with excellent permeability and connectivity with the centre of Birmingham. Later phases have increased the mix of uses.

Waterfront Business Park, Dudley: Score 15/35
Rather less successful, Dudley Waterfront suffered from a highly repetitive architectural
idiom. The scheme as a whole is highly car dependent, with no link to the nearby Brierley Hill town centre or the neighbouring Merry Hill Shopping Centre.

**Barbirolli Square, Manchester**: Score 23/35

This development works reasonably well in integrating office development with Bridgewater Hall and the canal. Some of the pedestrian access, particularly from the south side of the site, is not optimal, hence the slightly lower score than Brindley Place.

**Exchange Quay, Salford**: Score 9/35

The overall impression here was of archetypal corporate America – downtown Dallas, perhaps. The scheme was developed under enterprise zone conditions. There is virtually no public access and the private security presence is oppressive; the researchers were stopped three times by the security guards when they tried to access the area. In the evening, it is deserted; no-one appears to use the shops apart from those who work there, who all arrive by car.

The research suggested that good urban design adds value by increasing the economic viability of development and by delivering social and environmental benefits. It also indicated that the existence of these benefits was increasingly acknowledged across stakeholder groups – by investors, developers, designers, occupiers, public authorities and everyday users.

Encouragingly, there was direct evidence of correlation between better urban design and economic value. Brindley Place, for example, is outperforming much of the rest of office development in Birmingham city centre. Exchange Quay struggled with vacancy rates for its first eight years, although it has improved since the metro arrived; but it is currently returning an annual yield of only around 1-3 per cent.

Many of the research conclusions concerned reinforcement: how uses reinforce one another, and how prioritising public space attracts visitors, which increases turnover, thus increasing retail value. In the three successful schemes, at the early brief-making and supplementary planning guidance stages the quality of the public realm had been prioritised by the local planning authority and had to be taken on board by the developers and investors.

Car dependency was also an important issue. Those built into the public transport and transport integration infrastructure were more successful in terms of social usage and environmental impact.

**Who benefits from that value?**

Investors benefit through favourable returns on their investments and through satisfying occupier demand, although the full pay-off may not be immediate.

Developers benefit by attracting investors and pre-lets more easily and hence from enhanced company image. If they retain a stake in their developments for long enough, they benefit from good returns on their investments.

Designers benefit because good urban design is crucially dependent on their input.

Occupiers benefit from the better performance, loyalty, health and satisfaction of their employees and from the increased prestige that well-designed developments command with guests and clients.

Everyday users and society as a whole benefit from the economic advantages of successful regeneration, including new and retained jobs, and also from access to a better quality environment and an improved range of amenities and facilities.

Public authorities benefit by meeting their clear obligation to deliver a well designed, economically and socially viable environment and often by ripple effects to adjoining areas.

**How can greater value be released?**

While the research identified economic, social and environmental benefits flowing from good urban design, it also identified barriers to delivery, particularly those inherent in established patterns of investment and development. The research suggested a number of recommendations that may – in time – encourage a greater shared valuing of, and investment in, good urban design:

- The message that good urban design does not necessarily cost more to deliver but nevertheless offers strong competitive advantages needs to be spread to those operating across all sectors of the market – and not just at the prestige end. Occupiers in particular need to be persuaded of the advantages of good urban design since their attitudes influence the actions of developers and investors. This may not be straightforward given the disparate nature of occupier organisations.

**Fulfilling the public sector role**

The role of the public sector is crucial to the delivery of value through urban design. This role extends far beyond regulatory planning processes, notwithstanding their impor-
tant role in stopping introspective, exclusive and disconnected developments. Local authorities can and should be proactive, positively setting the urban design agenda through clear development plan policies supported by design briefs, frameworks and master plans using their influence to help ensure that funding is conditional on the delivery of good urban design using the leverage offered by ownership of brownfield sites. The research revealed that this can be decisive in ensuring better quality urban design working with private interests to achieve agreed economic and urban design objectives.

Local authorities must be willing to see high quality urban (and architectural) design as a component of development strategies, including those which are conservation led. Achieving this may require better publicity to be given to contemporary urban design success stories - nationally and especially locally. The research indicated that poor quality urban design is not necessarily a result either of an active decision not to invest in good urban design or of a lack of time and effort put into producing a high quality product. In their own way, all the case study developments were carefully designed and crafted products. In the better ones, though, urban design considerations extended beyond corporate image-making objectives.

Poor delivery, where it occurs, might result from a lack of urban design skills in both the private and public sectors. Efforts are already being made by DETR and CABE to address this skills deficit. Fundamentally, the gap needs to be filled across all professional education concerned with the built environment (particularly in the finance/investment related professions) and through continuing professional development. Initiatives on this front cannot come too soon.

As well as these 'process' related recommendations, the research revealed a number of findings that might usefully inform urban design practice. Delivering good urban design seems to some extent to rely on delivering the critical mass needed to support it. New public spaces, infrastructure improvements, mixing uses and so forth all rely on the realization of...
developments large enough to fund their delivery. This suggests an important role for the public sector in assembling larger sites.

Smaller developments can also contribute to the delivery of good urban design if clear strategies are put in place (by public or private parties) to coordinate adjoining sites and help deliver a well-considered whole. Proactive planning is the key.

Lifetime costs should be considered up front in the development process. This may not be easy to achieve when many of those with a longer-term interest in developments do not come on board until later in the development process. Nevertheless, the capacity of good urban design to reduce management and maintenance costs should be highlighted.

Where the strategic dimension of urban design is appreciated and acted on through positive planning at a larger spatial scale – particularly the integration of development into established infrastructure – the value (particularly social value) added by development is enhanced. Mixing uses leads directly to higher user and occupier satisfaction and was fundamental to the social, economic and environmental value added by the most successful case studies.

Public spaces and amenities are far more successful if located at accessible, well-connected points.

Good urban design can make areas more attractive to higher-income residents and the businesses and services which supply or employ them. It is important, however, to sustain social diversity within new developments to help ensure that the benefits of regeneration are widely shared.

The Value of Urban Design is a useful starting point but is not, of course, definitive. It represents a step towards clarifying the relationship between urban design and value but further research is clearly needed. This might take the form of a quantitative study of the economic value added by good urban design, a comparative examination of policy mechanisms associated with the delivery of good urban design and research into a possible method for measuring the value added by new developments. In broader terms, CABE is already extending its research programme on the theme of value, with ongoing projects looking firstly at the correlation between different standards of housing design and enhancement of sales value and secondly at how public bodies might incorporate an evaluation of design costs and benefits in economic appraisals of development options. Taken together, this research will form the first truly comprehensive assessment in the UK of what architecture adds to the bottom line and how it adds social value.

Brindley Place, Birmingham

Barbirolli Square, Manchester
Because BPG is in the forefront of predicting the cost of building ownership from inception to demolition, and balancing capital and operating costs to give best value, it can help planners gather a more accurate appreciation of what is being built, when it is going to be complete, when it will need maintenance and its sustainability.

Over the last 12 years, in its research into the durability of building components and services, BPG has discovered that a building’s capital cost is well understood but the running expenditure, which is by far the greater cost, is almost totally ignored. It has also uncovered the fact that financiers invest heavily in capital costs while the maintenance budget is left under funded. BPG believes that this imbalance must be addressed, especially when one considers the following:

- 90 per cent of the cost of running, maintaining and repairing a building is determined at the design stage (source: MoD).
- Over a span of 40 years, maintenance and repair typically account for more than twice the initial capital cost of a building (source: LCC Text, 1989).

A one-off maintenance job completed in response to a tenant request can cost up to 50 per cent more than the same job carried out as part of a planned maintenance programme (source: Audit Commission).

- Repair and maintenance work currently accounts for some 49 per cent of all UK construction output (source: BMI).
- The ratio of capital cost to maintenance and operating costs can be 1:5:200 (source: BAA). Ratio of Capital cost to maintenance and operating
- A lack of rigorous data is often cited as the key barrier to the wider uptake of life cycle costing. BPG has unique access to the UK’s most comprehensive durability database backed by an internationally recognised research team.

This knowledge has been assembled from data drawn from a diverse range of sources, including feedback from condition surveys and defects investigations, government funded research projects and BPG’s continuing role as claims investigator and technical auditor to HAPM (Housing Association Property Mutual insurance scheme).

The durability research has resulted in a number of leading publications, including the acclaimed HAPM Component Life Manual, the BPG Component Life Manual and the BRE published Defects Avoidance Manual. In addition, the MoD has sponsored a further component life manual, which covers buildings’ components for commercial and industrial buildings. BPG’s experts participated in both national and international standards committees and were responsible for drafting two parts of a new international standard on service life planning for buildings.

BPG is now advising on a large number of PPP/PFI projects, including a major schools project in Scotland called Glasgow 3ED – a pioneering construction contract. Other work, which demonstrates BPG’s expertise in industry best practice, includes the ‘Building Down Barriers’ project, headed by the DETR for army sports facilities at Aldershot and Wattisham.

Building Down Barriers – also known as the Construction Supply Network Programme – used live MoD projects to test out a new procurement approach, based on innovative techniques borrowed from manufacturing industries. This approach was centred around the creation of a 'supply team' through which designers, suppliers, manufacturers and clients all came together at an early stage to ensure an integrated approach throughout the project. Contractors’ tenders were based on whole life costs for design, construction and maintenance of the building over a 35-year period.

Each contractor was required to demonstrate that their maintenance approach was adequate for a 35-year period. The project attracted a great deal of press coverage and is now a case study for a best practice guide for use in the industry. BPG’s own contribution to the project included assisting the MoD in developing a Toolkit for this new form of procurement, as well as giving advice on the validity of the contractors’ whole life cost prediction and durability auditing.

BPG is a world leader in the understanding of whole life performance of buildings, consideration of which embraces energy conservation and sustainable construction, and is in line with the Latham Report and the Egan agenda.

BPG is the author of a number of key reference documents quoted in the bibliography of the DETR document on Whole Life Costing. It has also drafted two of the five parts of the new International Standard on durability, and assisted with the research and development of the government funded Building Down Barriers project for the MoD Defence Estates.

BPG is also a key member of the DETR funded Partners in Innovation research into the durability of Mechanical and Electrical Plant. Further information about BPG can be found on its web page: www.bpg-uk.com