

Physical capital

How great places boost public value



cabe

CABE champions the creation of great buildings and public spaces. It is a non-departmental public body set up by the government in 1999. Through public campaigns and support to professionals, CABE encourages the development of well-designed homes, streets, parks, offices, schools, hospitals and other public buildings.

Published by the Commission
for Architecture & the Built
Environment, April 2005
ISBN 1-84633-003-3

Physical Capital:
How great places
boost public value

04

Introduction

What is physical capital?

08

Public value

Physical capital and the potential of value maps

Dr Geoff Mulgan

28

The fabric of visions

A reflection on the democratic potential of physical capital

François Matarasso

48

Value of place

Can physical capital be a driver for urban change? The experience of Castle Vale, Birmingham

Professor

Ali Madanipour

Introduction: What is physical capital?

In this short booklet, three thinkers set out their perspective on the concept of 'physical capital'. CABE defines this as the potential value - financial, social and cultural - of the built environment. Schools, clinics, houses, offices, factories, streets, parks, museums, public art, squares and bridges combine to form the physical capital of a particular place. These assets have value in themselves and in the way they combine within the built environment. And how they are designed, managed and maintained is a key determinant of how far their potential value is realised.

The concept is not a new one. It builds on existing ways of evaluating urban design. It is also an analogue of social capital, a concept which in some ways it parallels. Our experience suggests that every neighbourhood has its unique set of assets, social and economic as well as physical, and how these combine and are used determines the identity and the quality of life in any given community.

Physical capital and public policy

The direct economic value of individual buildings is relatively well understood. For example, iconic architecture, such as Tate Modern on London's South Bank, has a value beyond its specific use - in place making, in attracting investment and spearheading urban renewal, and in enhancing cultural and civic life. But the contribution of the wider built environment - in terms of housing, streets, open spaces and public buildings - is less well appreciated. Physical capital is a massively under-realised asset that could be directly harnessed to further public policy goals, not least because of the scope and breadth of current investment.

Britain is in the midst of a massive public building programme, as part of the government's public service agenda, including 100 new major acute health facilities and the commitment to refurbish the entire schools stock over the next 15 years. At the same time, historically high sums are being invested in housing and neighbourhoods.

CABE argues that there is often limited understanding of how the value of this investment can be maximised to contribute to and underpin public service delivery and other public policy goals.

In reality, a well-designed built environment can be directly linked to achieving many of our key priorities. In particular:

- Public service delivery can be greatly enhanced by well designed schools, hospitals and other facilities contributing to higher productivity and better clinical and educational outcomes
- The public health agenda can be underpinned by public space which is well-designed, well-maintained and well-managed, encouraging lifestyle activity to address obesity, limiting exposure to environmental risk such as pollutants and accidents, and reducing the incidence of mental health problems
- Crime, and the fear of crime, can similarly be reduced through high-quality public space and improved design of buildings, such as houses and shops
- Environmental sustainability, including greater biodiversity and CO₂ reductions, can be designed into neighbourhoods, housing, offices and factories
- Civic and community renewal can be facilitated through improved social interactions in safe and attractive spaces and settlements with an enhanced 'sense of place'
- Economic performance can be improved both through productivity improvements in buildings and transport infrastructure, and through stimulating economic growth, particularly in urban areas.

More generally, good design can deliver in-built flexibility to meet the demands of changing patterns of use, both in public service delivery (through schools and hospitals, for example) and in social formation (of housing, streets and the public realm). Buildings come to fruition over 15-20 years and exist for 50-100 years - good design can help to ensure that they

remain relevant and functional, even at a time of rapid developments in society and public service provision.

CABE would also argue that ignoring physical capital as a wider asset leads to additional costs. It is a massive missed opportunity. Ignoring the opportunity of physical capital dissipates public investment and fails to capture its full potential value. It inhibits the effectiveness of other policy responses, for example where poorly designed hospitals undermine health outcomes, or badly maintained public space exacerbating crime and the fear of crime; and it risks creating new problems - such as the danger of building tomorrow's slums.

About this report

We are convinced that there is a strong story to tell about physical capital. In the essays in this collection three independent thinkers present their own perspectives on the idea. Geoff Mulgan suggests how we might develop a better understanding of how to measure value in the built environment, so as to help policy makers decide which developments and projects should be supported. He argues that the treatment of physical space as capital is highly sophisticated and well understood by the markets, but becomes more problematic in the relationship between private and public value. In short, there are too many variables involved. Instead he offers the idea of 'value maps' to disaggregate the variables and inform better decision making.

François Matarasso takes a sceptical line, emphasising the subjectivity of physical capital and arguing that nowhere is this more apparent than in questions of design. One man's masterpiece is another man's unmade bed, and physical capital is not as easily measured as the economic version. Accepting that certain generalisations can be made about what constitutes quality in the built environment, like fitness for purpose and longevity, he argues that the point of assessing physical capital should not be about measurement *per se*, but about how to improve our neighbourhoods.

Finally, we look in detail at a specific place and an actual case study. Ali Madanipour describes the physical change that has been effected on the Castle Vale neighbourhood in Birmingham and draws some lessons for how this has improved the socio-

economic circumstances of the residents. The turnaround has been dramatic: life expectancy has improved by five years, unemployment has fallen from 28 per cent to 5 per cent - 2 per cent below the Birmingham average - and the scheme has won numerous regeneration awards. Alongside major social and economic investment, there has been substantial physical change - not least the demolition of 32 tower blocks - and the 'suburbanisation' of Castle Vale is seen as a major factor in changing the area's identity, so that it is now just another 'normal' neighbourhood.

These three essays open the idea of physical capital up to a broader discussion. CABE hopes that the debate they provoke will further thinking about how the built environment is valued, and indeed how far that value can be measured and captured, and applied to the policy making process. That is the next step in realising physical capital's particular and fundamental role in helping us to deliver public policy objectives and create successful neighbourhoods.

Public value

Physical capital and the
potential of value maps

Dr Geoff Mulgan
Institute of Community Studies



→ There is no doubt that a good physical environment is desirable and valuable. But what is the nature of that value? How does the value accruing to owners of property relate to value to the wider public? Can any of these kinds of value be accurately measured? And what is their relationship to other types of wealth, income or capital?

These questions matter particularly for the UK. On the one hand, ours is an old country, with an old housing stock, generally old public spaces and old infrastructures. Some aspects of this oldness are greatly valued (churches, city squares, Georgian terraces); others are not (crumbling sewers, roads); and some parts of this legacy are in flux in terms of their perceived value (19th century working class terraced housing, Victorian schools, early shopping malls).

The UK is also peculiar because of the very low levels of public capital investment of the last few decades by comparison with other countries, during a period when per capita income has caught up with and in some cases overtaken others (the rate of investment has been rising fast but remains well below OECD norms). The result is an evident imbalance between private affluence and public poverty (and in some cases squalor), that is likely to persist for some time.

We need better to understand the nature of the built environment's value for at least the following main reasons:

- To judge the best levels of spending and investment
- To judge between alternative projects
- To manage investments - with the right depreciation, portfolios of risk and reward
- To determine the balance of risk and reward between public and private players.

Over the last few years, much work has been done to better capture the diverse types of value involved in both private and public enterprise: assessments of social returns on investment; social audits; balanced scorecards; blended value assessments and many other methods are now in widespread use. All of these attempt to support better decision-making that more accurately reflects the full range of effects achieved by business and public agencies. As I will show, these point to

“The great insight of modern economics is that there is no such thing as intrinsic value”

potential new methods that could be used to support better decision-making around the built environment.

In particular, I recommend developing the concept of ‘value maps’ for the built environment. This draws on the various innovations being used within organisations to cope with different forms of value and the parallel attempts to map environmental benefits. In this case, though, it is tailored to the specific situations involved in major developments of the built environment and the diverse perspectives of business, the public sector and the community.

→ The nature of value

Let me start with some ground clearing on the nature of value. The great insight of modern economics is that there is no such thing as intrinsic value. Nothing - whether a block of gold, a great painting, a church or a palace - has value unless someone values it. Value in other words is socially created. In the market value can be judged by the prices that people are willing to pay. In the public sector, value ultimately rests on people’s willingness to vote for politicians who will raise taxes to pay for goods and services. In no case does value derive from the thing itself. This is not to deny that we often share common perceptions of beauty: the combination of genetic endowments and cultural inheritance would make it very strange if there were not some common patterns in what people find attractive: the golden mean in art and architecture; the biophilia (love of savannahs, areas of grass with low-hanging trees and lakes) which Edward O Wilson ascribed to a buried memory of the areas in Africa where humanity originated; the attraction to certain kinds of face or melody. But their value derives from their relationship to human beings not from any innate properties. Although there are many philosophical and aesthetic traditions which ascribe innate value to objects, these values only become social facts when someone or some institutions confirm that value.

→ Value and capital

All of the other concepts of economics are essentially derived from ideas about value. Money, for example, is simply a tool for handling value: storing it, transacting it and so on. Similarly, capital is meaningful only as an asset which creates value, or which has the potential to create value. This may be a stock of

money that can be invested in a trading project; or it may refer to a factory, or a design or a retail centre. The value of the capital is, however, solely dependent on the value of the goods and services in which it is invested, and these are in turn wholly dependent on whether at a particular point in time people choose to value those goods and services.

Usually capital is valued by measuring the price of outputs produced and consumed over time, less depreciation (wear and tear etc), and adjusted for the greater risk and uncertainty of future returns relative to current ones. So if the clothes produced by the factory go out of fashion the capital value of the factory's production line may fall (although if it is easily reprogrammable this will be less of a risk). If people cease choosing to shop in shopping malls, or cease choosing to live in mock Tudor houses, their capital value will fall (again, more adaptable buildings will be less vulnerable to this). Moreover, since capital values are weighing future returns against present ones, greater economic instability will tend to diminish capital values (until in times of acute emergency they may sink near to zero). And if real interest rates rise, which means a rise in the relative value and cost of scarce financial capital, the capital values of other things, such as buildings, should fall.

→ Other types of capital

The concept of capital has turned out to be immensely useful for handling risks, and for managing an economy largely founded on investments that often run for quite long periods of time: factories, research, development and manufacture of pharmaceuticals, railways, tower blocks, broadband networks and so on.

It is perhaps not surprising that the word has been extended to other kinds of asset that have some similar properties. Human capital is a straightforward application: qualifications and skills enable individuals to earn more, and indeed UK evidence shows very high returns to certain kinds of education. Over time, the value of the capital depreciates, and in periods of rapid change, this pace of depreciation may accelerate.

'Social' capital is more problematic. The phrase has become extremely popular in recent years, although this popularity has not led to a stable definition or accepted means of



measurement. Some, for example, suggest that it is best understood in very similar terms to human capital as an attribute of the individual: their ability to make connections, use networks and deal with people from varying backgrounds. Others situate it in social relationships. So far, social capital has not made the transition into practical use as a policy tool, though large scale surveys are now being used to map it, to compare levels of capital in different geographical areas and age cohorts (and the UK will lead the world in the extent of its evidence base on social capital).

The concept of capital has also been extended in other ways to reflect the many different sources of value in a modern capitalist economy: organisational capital, natural capital, knowledge capital. However, in all of these examples it is used more as a rhetorical device than to shape useable techniques to help decision-making. This should not be surprising. It is often assumed that capital in business is a relatively unproblematic concept that is easily defined, measured and managed. There has been a long history of innovation in accounting techniques to capture shifting patterns of value in different industries - from railways and the telegraph, to large-scale aerospace production and more recently the Internet - and of major failures that have resulted from the mis-measurement of costs, assets and potential returns. In each of these cases capital turned out to be much harder to pin down than one might expect: how for example to allocate the costs of design, development, testing, and vast factories in the manufacture of aeroplanes? Capital values in infrastructures have generally been very volatile (a high proportion of early railways went bankrupt; the huge overinvestment in third generation mobile phone licenses is a more recent example). There remains little consensus on how to judge the capital value of brands or intellectual property or the culture and ethos of an organisation, although no-one doubts that these have many of the qualities of other forms of capital.

“The phrase ‘social capital’ has become extremely popular but this popularity has not led to a stable definition”

→ Physical capital

So, with these caveats, what can we say about value and physical capital? The implication of what I have set out above is that we first need to be clear about the nature of the value associated with built environments, and then consider the relationship between value and capital.

“Despite the booms and busts in property prices, the treatment of physical space as capital is highly sophisticated”

Clearly, buildings and public spaces involve both value and capital: their users value them and they have some of the properties of a stock of capital (indeed, they are probably the purest example of capital).

Despite the booms and busts in property prices, the treatment of physical space as capital is highly sophisticated, well understood by markets and supported by proven methodologies for valuation.

Their value and character as capital is somewhat complicated by the nature of the value of the land, which is generally taken to be the value of alternative possible uses (taking into account the costs of demolition and restoration) but which also reflects the legal status of the land (receiving planning permission for agricultural land near cities raises its values 10-100 fold).

However, compared to many other areas of economic activity the nature of physical capital is at first glance relatively straightforward, with well-understood linkages between inputs and valued outputs, and well-established methods for paying off loans over long periods.

→ **Public and private value**

Unfortunately, this apparent solidity breaks down when we come to the complex interrelationship between private and public value that tends to be found with public spaces. A new railway will raise property prices near stations; likewise a newly improved town centre or park. One measure of the success of regeneration projects is their impact on house prices (though this may of course displace the people who were originally intended to benefit from the regeneration). Conversely, a private development may increase the attractiveness of a town square or a railway station.

Some progress is being made in understanding the links between public and private value. It is not hard to identify the direct impact of things like views over water and parks on property prices (and some evidence has now been gathered on patterns linking views to house values). Similarly, local amenities like playgrounds in residential areas will have a very direct impact on property prices (as will school performance and crime levels).

The management of public spaces can then also create other kinds of value. There are many examples where improvements to urban spaces including CCTV, pedestrianisation, signage, street furniture and lighting make them more attractive, bring in more people and so directly increase the value of retail sites. Better analyses of these kinds of linkages can make the market function better, and show where owners of property may have an interest in combining together to fund common services and improvements.

“For something to be of value it is not enough for citizens to say that it is desirable in a survey or consultation”

Well-designed markets then make it possible to commodify and monetise value into the future, so that alternative investments can be compared. All capital markets do this to some extent; derivatives markets take the logic a step further. Their more subtle role is to recognise and then organise hidden values and assets in ways that allow new value to be captured. Intelligent development of physical spaces unlocks this value: transforming the derelict warehouse or factory into a desirable place (and following some of the trends first described by Michael Thompson in his book ‘Rubbish Theory’ which traced the transition that many objects and physical spaces pass through from being everyday commodities, to becoming ‘rubbish’, ending up as scarce luxuries). This will be helped by relative certainty about planning horizons, credible overall strategies for urban development, low interest rates, economic stability and so on.

These aspects of private value are fairly well understood. There is also a reasonable understanding of how higher private values will indirectly flow into public funds through higher rateable values and income streams, as well as higher stamp duties. In principle, those benefiting most directly from any public investment should make some additional contribution towards it, which is why tax authorities have tried (with only limited success) to design better methods for capturing increased values in physical capital, including Tax Improvement Funds, betterment levies, and Business Improvement Districts.

In general, however, the links between private and public value are not as well understood as they should be. There are usually too many variables involved. There are also likely to be some significant interdependencies in value that arise from less

tangible behaviours that are hard to model. Social norms on cleanliness, rules on plants and gardens, can have a major influence on property values; likewise, allowing 24-hour drinking in an area may raise the value of certain kinds of property - buildings with licenses to sell alcohol - and cut it in others.

→ **Maximising public value**

Just as problematic in making sense of the value of developments in the built environment is uncertainty about exactly what is meant by public value. Most of the developments described above - from regeneration of old docks to the creation of new transport hubs - evidently create some public value as well as private value, which is why it is legitimate for the costs of development to be shared. But there is likely to be much less agreement on what that public value is, let alone how it should be capitalised.

“Beautiful designs may count for little if the human dimension of public space is cold”

It is worth pausing to be precise about what public value means. A lot of work is currently underway to give more substance to this concept - involving amongst others the BBC (who made the concept central to their charter renewal), the government's Strategy Unit, the Work Foundation, the Kennedy School at Harvard and others. (Much of this thinking is synthesised in 'Creating Public Value' published by the Strategy Unit.) It is generally agreed that whereas private value is determined in markets, public value is determined by citizens' preferences, expressed through a variety of means and refracted through the decisions of elected politicians. For something to be of value it is not enough for citizens to say that it is desirable in a survey or consultation. It is only of value if citizens - either individually or collectively - are willing to give something up in return for it. Sacrifices are not only made in monetary terms through paying taxes and charges. They can also involve granting coercive powers to the state (e.g. in return for security), disclosing private information (e.g. in return for more personalised services), or giving time (e.g. serving as a part-time special police officer). The idea of opportunity cost is therefore central to public value: if it is claimed that citizens would like government to create something, but they are not willing to give anything up in return, then it is doubtful that the asset or activity in question will genuinely create value.

Traditional market failure analysis provides one set of explanations for public action: where there are public goods

that are not excludable, information failures or externalities. Some aspects of built environment developments fit into these categories: a beautiful sculpture in a city square may be a classic public good; a row of trees that reduces the noise from a major road is a classic measure to reduce negative externalities. But often, public preferences go beyond these classic examples: people often want a public expression of identity and community (for example through major public buildings) and they often place a strong value on issues such as distributional equity (who gets the houses in a new development?) and due process. Citizens themselves are often involved in the production of public services in a way that is not the case in relation to private services (for example in the areas of public health, education, and community safety, citizens typically provide as much of the critical input that contributes to outcomes as paid professionals).

“The poorer the area, the more people talk to their neighbours and the less they trust them”

The analyses of public value suggest that the key things which citizens value, and demand from governments, tend to fall into three categories - services, outcomes and trust. These provide some useful insights into how to think about the values associated with built environments.

The built environment and services

Taking services first, the evidence from surveys and analyses of public satisfaction points to a number of critical factors that are often underrated by people concerned with the physical aspects of the built environment. For users the physical dimension of public spaces and buildings is only one part of their experience. So, for example, evidence from the private sector shows that how people are treated by staff ranks only just behind quality and price of product in determining their satisfaction. Similar considerations apply to the management of housing stock or retail space. Beautiful finishes and designs may count for little if the human dimension of the public space is cold. There is a strong correlation between satisfactions with different services and whether people feel they are well informed about them; information plays a crucial role in building relationships between services and their consumers. This is undoubtedly why involvement in planning processes can increase satisfaction with the results (though, as with all consultation, levels of satisfaction are highly dependent on both the style of engagement and the actual outcome). There is also

“There is strong evidence that physical design and trust are linked”

some evidence that enhanced levels of choice can boost user satisfaction even if it does not have a discernible impact on service outcomes. Again giving communities some choices over a major development rather than offering a fait accompli will increase satisfaction. Generally people value services and assets that they use more than ones that they only hear about through the media. According to regular surveys conducted by MORI and others in the UK roughly 80 per cent of users of local secondary schools are very or fairly satisfied with the service provided compared to only 30 per cent of the general population. These findings, along with evidence that people are increasingly inclined to trust those close to them rather than distant institutions, point to advocacy by service users as a potential tool for boosting satisfaction. Private sector research indicates that advocacy by staff is a potentially powerful tool for developing strong trust in services.

These findings may help to explain why new developments are so often greeted with initial hostility, but, once used, come to be supported (the swing in public attitudes to the Angel of the North is a good recent example). Another relevant piece of research is the work done in Perth on travel patterns. Direct home visits to talk people through alternative routes to work proved far more effective in changing behaviours than changes to taxes, fares and regulation.

There is no simple linear relationship between service improvements and satisfaction. Some factors will tend to make people less satisfied if they are absent but will not make people more satisfied if they increase, and vice versa. A useful research exercise might apply some of these tests to public spaces, such as major transport interchanges, shopping malls and housing developments.

Public spaces and the built environment contributing to outcomes

The public has always seen outcomes as a central part of their contract with government. In the past, the most important outcomes were peace and security; in the 19th century public health and education became increasingly important; in the 20th century, a range of outcomes including poverty reduction and improving the environment also moved to centre stage. These outcomes will often overlap with services. For example,

“Any major architecture and built environment development is likely to involve different kinds of value”

the service provided by a school to parents is linked to the outcome of a better-educated population. Similarly, the service provided by the police to victims of crime is linked to their success in cutting crime.

These outcomes are an important issue for the management of public spaces and built environments. In some fields the links are very direct: good physical design and mobility in transport is an obvious example; building design and energy efficiency is another. Physical regeneration may contribute to other outcomes such as higher employment rates and incomes (though experience suggests that physical regeneration on its own tends to have much less impact on these indicators than if it is properly integrated into a holistic strategy). There is also some case study evidence on the links between:

- School environments and school outcomes (these lay behind the current projects like Schoolworks and the new ‘Building Schools for the Future’ fund run by the DfES)
- Hospitals, health centres, the presence of gardens and arts and recovery rates. The availability of safe green spaces should also contribute to health outcomes, reducing Attention Deficit Disorder and so on. Heart attack risk can be reduced by as much as a half by regular walking, which in turn is heavily dependent on the safety and attractiveness of spaces
- Physical design of town centres and housing estates and levels of crime. We now have several decades of research on designing out crime, comparing housing estates with otherwise similar social compositions and assessing the impacts of such things as lobby areas visible to the street, better natural surveillance, lighting and alley gates, wider paths and so on. More use also tends to mean less crime
- Building quality and productivity in workplaces
- Physical design and democratic engagement: for example, changing town halls from being emblems of authority and power to becoming more welcoming places where people feel at ease participating in decision-making.

The impact of these outcomes may be indirect: for example any return to more dense urban living will change transport patterns, potentially cutting journey to work times and such things as respiratory ailments. Less dense areas may turn out to be more prone to pedestrian accidents: a remarkable analysis by the Surface Transportation Policy Project found that the most dangerous places in America to walk are, in fact, neighbourhoods (such as much of Florida) that were built without sidewalks. In these areas, regardless of income, “you are much more likely to be hit by a car than to be attacked by a stranger with a gun.” Research of this kind unlocks hidden potential public value, and sometimes reveals unnoticed public costs.

What is lacking are large-scale quantitative analysis of these relationships and proper testing of defaults. To be wholly convincing analyses of this kind need to be carried out over long periods of time (to avoid Hawthorne effects - where the improvement is more a temporary effect of change rather than a permanent effect of improved design), across a sufficient range of projects, and with some means of calibrating design quality.

We also lack sufficient understanding of how public preferences are interdependent. For example, someone might support a shift to a different public transport system so long as other members of the community also supported it and were willing to use it. Likewise, people might prefer some shared public spaces for children so long as others were likely to make use of it, thereby guaranteeing low- key surveillance. Bringing preference of this kind to the fore depends on active conversation - rather than passive polls, surveys and consultations.

Trust and the built environment

It has long been recognised that the design and management of public spaces is likely to have an impact on overall levels of interpersonal trust. This insight lay behind much of the civic tradition of town squares, enclosed public spaces and structured conviviality.

For the UK, the relationship between trust and the built environment is made complex by the broader patterns of trust. Social capital is now highly polarised by class. Moreover, there is now a rough correlation between social class, the extent to which people talk to their neighbours, and their trust in their



“The best way to handle diverse types of value is through the production of what could be called ‘value maps’”

neighbours: to simplify and summarise, the poorer the area, the more people talk to their neighbours and the less they trust them. This is in part an effect of higher crime and anti-social behaviour levels which has in turn been influenced by lack of care for the physical environment.

It is interesting that the first mention of social capital, in Lyda Judson Hanifan’s discussions of rural school community centres in 1916, used the phrase to describe ‘those tangible substances [that] count for most in the daily lives of people’. Although he primarily meant rather intangible substances such as good will there is strong evidence of links between social capital and physical environment. High social capital tends to correlate with cleaner and safer public spaces. Poverty and high levels of mobility, which are often taken to be the critical risk factors for neighbourhoods, may be less important than whether people participate in community organisations, have strong friendship networks and feel a shared responsibility for supervising children. Some of the claims made in the 1980s for the dramatic impact on crime and community cohesion of physically regenerating estates turned out to be ill founded. However, there is strong empirical and anecdotal evidence that physical design and trust are linked: for example average traffic speed in residential areas has been shown to correlate with the degree to which neighbours speak to each other and feel able to make requests of each other. Equally, patterns of lighting, design and flow influence friendship patterns.

There is also a fair amount of patchy data on the relationships between physical design and mutual commitment: the role of street shapes (long streets, cul-de-sacs, squares, crescents all appear to have different effects); of front doors and visibility; and of street grid patterns: all determine the extent to which people are likely to forge relationships with those around them. However, here too there is a lack of sufficient and sufficiently robust research with large samples.

→ Applications of public value

How should these insights from public value be used in relation to the built environment? There are some obvious implications:

- Value is unlikely to be maximised without better understanding of public preferences, including the service

dimensions of public spaces (the often disregarded roles of the guardians of spaces) - with dialogue rather than passive surveys as the best tools for eliciting complex preferences

- Better analysis of the relationship between spaces and outcomes. Here we can benefit from research done in other countries
- More rigorous assessment of the links between design and trust.

Some of the methods being developed to build on the insights of public value theory may also be useful:

- Involving the public in the design of contracts - for example specifying the measures that will be used to determine payments to a PFI contractor in housing
- Weighting payments to public satisfaction: for example payments to bus services reflecting satisfaction rather than simply rewarding punctuality
- Designing road building contracts to reward the minimisation of congestion so as to ensure more holistic planning with neighbouring transport authorities
- Appointing street or block leaders to motivate and mobilise their neighbours in such things as crime reduction and recycling
- Participatory budgeting which involves the community in setting priorities: time-consuming but likely to lead to greater trust levels and resilience.

These methods need to interrelate with the mainstream methods for assessing investments. Unfortunately, existing technical appraisal methods have fallen somewhat behind these insights. There is a well-established body of practice in government for evaluating policy options and investment possibilities. The *Treasury Green Book*, and individual departmental methods that draw on it, set out clear methods for systematic evaluation and have primarily been developed around physical projects to inform ministerial decisions. Cost



benefit methodologies are widely used around major projects such as airports, despite decades of damning criticism of some of their methodological flaws. Some aspects of value (e.g. service outputs, financial costs to business, citizens and the Exchequer) are relatively easy to quantify and therefore to use in an assessment. We have standard valuations for many of the outcomes that are important in public value: for example, measuring health-related quality of life through Quality Adjusted Life-Years. Beyond this, there are other well-established techniques for tackling elements of value that are very difficult to quantify (including revealed preferences, contingent valuations and rankings).

In relation to buildings and the built environment there has been marked progress in the use of much more encompassing life cycle analyses of costs and benefits, and a proliferation of more participative methods for involving those who may be affected by physical change in shaping it. However, there may be a need for more synthetic methods, which bring together the different types of value into a single transparent account that can be discussed and interrogated. The following section sets out what this might contain.

→ **Value maps for public spaces and the built environment**

Bringing together the main strands of the discussion in the previous pages, we can say that any major architecture and built environment development is likely to involve a number of different kinds of value. All of these are amenable to some valuation, though with varying degrees of certainty. Some of these kinds of value can be capitalised and translated into net present values; others cannot. However, clarity about their levels and nature is likely to improve the quality of decision-making, and the kinds of deal which can be struck.

Some existing methods are not wholly suitable. For example, scorecards are useful for individual organisations, but cannot easily capture the different perspectives on value of different interests. Social return on investment analyses can be useful for understanding the indirect effects of initiatives. However, methods that seek to aggregate diverse numbers into a single figure (like benefit/costs analyses) seek to impose an inappropriate consistency onto what is inevitably a complex picture.

“One of the weaknesses of some of the newer methodologies is that they try to bring all kinds of value together into aggregates”

The suggestion here is that the best way to handle diverse types of value is through the production of what could be called ‘value maps’ - visual diagrams which set out in graphic form the relationships between different types of value and the flows of value they achieve. These would set out the various kinds of value involved in any major building project:

- Contributions to private residential property values and their indirect contribution to public tax revenues
- Contributions to private non-residential property values and the indirect contributions to public tax revenues
- Contributions to public priority outcomes - crime, health, education (some of which can be given rough monetary equivalence - what it would cost to achieve equivalent goals through other means)
- Other contributions that are likely to create public value: service-equivalent experiences of public space; trust levels; the ‘merit good’ (ie socially desirable) qualities of particular public spaces or buildings.

Any assessments of value then need to be adjusted with an appropriate discount rate, based on the differential depreciation to give net present values. Linkages would be described in the same way as happens in systems maps.

The values described in value maps cannot be definitive. They will range from the reasonably hard values ascribed by market processes through to much less certain estimates. One of the weaknesses of some of the newer methodologies for assessing complex values is that they try to bring all kinds of value together into aggregates. A better approach is to be explicit about the degrees of certainty around different numbers (either through a star rating - one to five stars depending on the solidity of estimates, or visually through font sizes and darkness).

One of the tasks of research is then to give firmer groundings for estimates of the value of less direct outcomes (for example respiratory health, crime reductions and so on).

What use would such maps have? Their main purpose must be as a tool to support better decision making:

- Being explicit about likely impacts, and levels of knowledge
- Clarifying the opportunity costs associated with public investment
- Setting the harder private value figures against softer, but sometimes larger, public value measures
- Providing a basis for better informed discussion with the key stakeholders including funders and the wider public.

Ideally, tools of this kind should also help to increase alignment - finding the options which simultaneously maximise both public and private values by unlocking value that otherwise lies hidden and unrealised.

Maps of this kind may also be useful tools after a major development has taken place as well as before. The built environment is constantly made and remade. Stewart Brand's book on 'How buildings learn' provides a good perspective on the nature of their value, and the extent to which physical capital is not fixed but needs constant adaptation in response to changing demands. Revisiting and revising value maps could provide a focus for communities to become more engaged with their built environment and more sophisticated about the roles of money and power in shaping them.

The fabric of visions

A reflection on the democratic
potential of physical capital

François Matarasso

The term 'physical capital' was originally used to mean machinery, buildings and equipment used in a production process. But as with other types of capital - social or human, for instance - the notion has broadened over the last few decades. Today, CABE defines physical capital as the identity that results from a combination of buildings and spaces mixed with local people's culture and behaviour.

One of the difficulties of this concept is the question of ownership. The fabric of a neighbourhood, whether privately or publicly owned, is often treated as though it is private capital. This can make creating a sense of neighbourliness very hard.

The essential point of capital is to produce goods. Buildings and spaces do this - a shop provides a place to trade, a park a place to relax; and in fact, many parts of the physical environment have multiple capacities. However, a building that merely lives up to its function does not necessarily create benefit for those who live nearby, as people living beside scrap yards or wind farms might testify. Cultural value is another variable that affects physical capital. The value we attach to a house or

neighbourhood can be influenced by an abstract intervention like a blue plaque or World Heritage Status.

One big limitation of physical capital is its subjectivity and nowhere is this more apparent than in questions of design. One man's masterpiece is another man's unmade bed. It's clear that physical capital is not as easily measured as the economic version. But certain generalisations can be made about what constitutes quality in the built environment, such as fitness for purpose or longevity, standards that the Dome would have failed to meet.

The point of assessing physical capital should be to learn more about how we can improve neighbourhoods. Any attempt to measure physical capital through a 'physical capital audit' is inherently subjective, but this is not necessarily a problem. If the concept is understood to be subjective, it can still help local people, rather than professionals, to shape their communities for themselves.

And like the baseless fabric of this vision,
The cloud-capped towers, the gorgeous palaces,
The solemn temples, the great globe itself,
Yea, all which it inherit shall dissolve;
And, like this insubstantial pageant faded,
Leave not a rack behind. We are such stuff
As dreams are made on...

Shakespeare, The Tempest, IV.i



→ This paper has been written at the invitation of CABE to inform its thinking about the concept of physical capital. The paper begins by considering the concept of capital itself and the various meanings of the term 'physical capital'. It highlights some of the difficulties in applying it to the built environment, including problems of ownership, boundaries and, above all, the meanings that different people or cultures may invest in it.

The paper goes on to propose a working definition of physical capital (in CABE's field of concern), and to consider approaches to assessing and contrasting its level. It proposes three distinct aspects of the quality of physical capital: its intrinsic value, its use value and its cultural value.

It concludes by outlining the potential of the built environment (expressed as physical capital) not as a stable component of an economic assessment like cost benefit analysis, but as a focus to engage people in democratic debate about the places where they live, the uses they serve and the values they represent.

→ What is physical capital?

The meaning of capital

The concept of capital has been so widely appropriated in recent years that it is easy to forget that it belongs to economics, where it has a very specific meaning. In classical economics, capital has three fundamental characteristics. First, the term is applied to resources that enable the production of other goods. Secondly, it is the result of human creation, not a natural resource like land. Thirdly, unlike raw materials like coal or cotton, capital is not consumed in the process of production.

The term applied originally to wealth, since money enables the purchase of resources such as materials and labour; but it was subsequently applied by economists to other assets which shared its characteristics. Ideas about the nature and use of capital developed as different concepts were advanced from different economic, political and philosophical perspectives. Among the less contested of these was the term 'physical capital', which has long been used to refer to machinery, buildings and equipment used in the production process - what, in 1945, the Soviet army shipped wholesale out of Germany in the guise of war reparations.



Broadening the concept of capital

The idea of capital has been central to understanding economic processes and their impact on society. But the idea of a human-made resource, which enables the creation of further value and is not exhausted in the process, has proved useful in other fields. So we have seen the emergence of human capital, intellectual capital, natural capital, infrastructural capital, social capital and cultural capital among others.¹



This extension is a relatively recent phenomenon: as recently as 1983, in a book about the vocabulary of society and culture, Raymond Williams included capital only in its conventional sense.² But it is also an increasingly fashionable phenomenon: one analysis of social capital identifies its earliest definition in 1920, six more up to 1990, and 21 in the next nine years.³ Social capital now has widespread currency in academic and political circles.

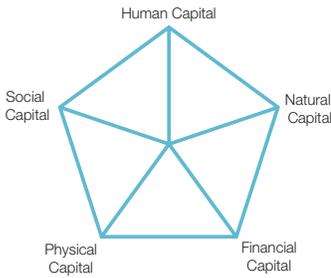
One factor in this evolving definition of capital may be the growth of economic analyses that recognise quality of life and other human values, as in the work of Amartya Sen. A broader idea of capital makes it possible to consider all the available resources through which people can improve their situations - but only if the production of goods is taken to include aspects of human, social and environmental value.

In this sense, a broad understanding of capital has the potential to enrich and diversify individual, social and political approaches to development. It has also the potential to foster empowerment by extending not just the definition of resources (and thereby who has them), but also the idea that their use is widely available.

Defining physical capital

If the concept of capital as an enabling, human and renewable resource is accepted as helpful in understanding human society and development, we can consider what the subdivision of 'physical capital' might describe. The most widely accepted definition is probably along the lines of that given by the free content encyclopaedia, Wikipedia:

*In general, physical capital refers to any non-human asset made by humans and then used in production. Often, it refers to economic capital in some ambiguous combination of infrastructural capital and natural capital.*⁴



This conventional idea of physical capital has been seen as the counterpart of human capital, and has certainly contributed to the asinine division between ‘hard’ and ‘soft’ investments which continues to hobble policy. In the post-war decades, development thinking focused heavily on physical capital (infrastructure), seeing ‘spending on health and education as a drain on the accumulation of “productive” assets’.⁵

Fortunately, development theory and practice have evolved since the 1950s, and physical capital is now understood more broadly. Thus the Andhra Pradesh Rural Livelihoods Project, following guidance from the UK Department for International Development (DFID), sees it in the context of welfare economics:

*Physical capital comprises the basic infrastructure and producer goods needed to support livelihoods. Infrastructure consists of changes to the physical environment that help people to meet their basic needs and to be more productive. Producer goods are the tools and equipment that people use to function more productively.*⁶

“A broad understanding of capital has the potential to enrich and diversify individual, social and political approaches to development.”

Crucially, in this model of development, physical capital is one element of an interdependent group of resources that contribute to social change and economic development.⁷ This links better with CAFE’s thinking which also makes space for social and economic capital. However, CAFE is both broader and narrower (it does not include tools or equipment) in its description of physical capital as:

*the idea that every neighbourhood is made up of a collection of buildings and spaces (homes, streets, shops, a school, a park), which taken together with the cultures, commerce and behaviour of local people (its social and economic capital), determine the identity and quality of life in any given community.*⁸

In short, and despite the well-established and central position of physical capital in economics and development, there are quite different understandings of what the term means. CAFE must adopt a definition which at least complements those current in related fields if it hopes to establish a basis for common thinking and action with other partners.

“The use of the built environment to produce common goods such as neighbourliness or community identity is fraught with difficulties”

Capital and ownership

A particular challenge in connecting with how others use the term is in the area of ownership. Established ideas of capital assume its control by an individual or a group. Money, industrial equipment, natural resources, education, even access to networks as understood in current thinking about social capital, can all be seen as belonging to someone.

Ownership, whether personal or corporate, is central to the idea of capital. An asset must be available for someone's use to confer benefit, whether to themselves or to others they wish to assist. This is evidently the case of financial capital; likewise, human capital, if understood as a person's capacities, clearly belongs to the individual. Social and cultural capital are also centred on people, and their links to networks, norms, education etc.

But if the concept of physical capital is extended to mean the 'buildings and spaces' that 'determine the identity and quality of life in any given community', ownership becomes complex. The fabric of a neighbourhood lies in private, corporate or public ownership, and is treated, legally and in other ways, largely as a form of financial capital. Different owners will have different objectives: contrast the developer mothballing a building while prices rise, with the shopkeeper who needs to encourage trade. Historically, it has been the role of the planning authority to hold the ring between the diverse and often incompatible purposes to which owners apply their properties. But councils are important players themselves, aiming to shape the character and quality of life in neighbourhoods in increasingly ambitious ways.

So the use of the built environment to produce common (and commonly valued) goods such as neighbourliness or community identity is fraught with difficulties: it depends absolutely on co-operation between owners, which in turn depends on a shared vision of a place.

The boundaries of physical capital

A further difficulty is introduced by the extension of physical capital to include 'spaces'. CAGE is right to be concerned with the interstices between buildings, the ambiguous spaces of complex and shifting use: these are crucial in shaping the

“Where does the realm of physical capital in the built environment begin and end?”

character and liveability of neighbourhoods. At London’s South Bank Centre what happens outside the buildings, and the flow between inside and outside, have been fundamental to its development, creating an open ground in which different groups (tourists, buskers, concert audiences, skateboarders, day trippers, street traders etc.) have found a reasonable *modus vivendi*: the contrast with space around the Barbican Centre, or any private retail centre, is instructive.

But can such territories, whose importance lies partly in ambiguity of ownership and control, be considered in the same terms as buildings where there is no such uncertainty? Where does the realm of physical capital in the built environment begin and end?

→ Elements of physical capital

There are evident difficulties in applying the concept of physical capital to something as large and ill-defined as the buildings and spaces which comprise the built environment. Before attempting to resolve them, we should look in more detail at the characteristics of that environment when considered from the perspective of physical capital.



Use value: functionality and the built environment

As outlined above, the essential characteristic of capital is to enable the production of other goods. Transferring the concept to fields other than manufacturing, or even economics, means taking a much larger view of what constitutes a good. No longer simply a product, still less a marketable one, a good in these terms is about capacity: the capacity to trade (a shop), to meet as a faith community (a temple), or to eat sandwiches away from the office (a park). In practice, buildings, streets and public spaces have multiple capacities: a pub exists to sell drink and food, but it may also be a social centre, an old people’s lunch club, a music venue, a place of work, a home and more besides.

Use-value is recognisable, quantifiable and potentially tradable, but it is not inevitably good. It empowers, but the uses to which it can be put are not equally desirable. A scrapyard may be financially viable, fulfil a socially useful process, and still be unwelcome to its neighbours. The same is true of many other forms of physical capital, from hostels to playgrounds, or wind-farms to speed cameras.



Capital, of all kinds, is essentially neutral. It has an absolute use value, in enabling people to do things they could not otherwise do. Beyond that, its value is subjective and dependent on people's culture and situation. Take social capital, whose promotion is now widely (and sometimes naively) seen as a desirable policy goal. Its components - trust, reciprocity, networks, social norms and conventions etc. - are vital factors of development, but they can lead, for example, to the exclusion of those who do not conform. In the recent past, such groups have included unmarried mothers and gays, among others; today one might identify travellers, or, increasingly, Muslims. Worse, it can be applied to wholly anti-social purposes: the Mafia's power is rooted in high levels of social capital within the group.

“If physical capital were a simple, uncontroversial good, we would not need a planning process”

If physical capital were a simple, uncontroversial good, we would not need a planning process; we do, because its use value can be applied to all sorts of ends, many of which will, at some point, conflict with someone's desires and values.

Cultural value: perception and the built environment

Even if we allow for complex, overlapping and conflicting uses, there remains a point - that might be expressed simply as fitness for purpose - beyond which differences of quality in physical capital are exactly that: qualitative. A 17th century timber-framed cottage is not essentially different from a similarly-sized Barratt home. If some people pay more for it, it is partly because of its scarcity, and partly because of a perceived quality and cultural value; others prefer the second because of their different perceptions of the same things.

The planning difficulty is that people's perceptions of value change. In the 1960s, and 1970s, the wealthy inhabitants of the historic town of Cartagena de Indias, in Colombia, were attracted to new Florida-style condominiums along the shore at Bocagrande. Today, the old city is a UNESCO World Heritage Site, investors have begun restoring its crumbling mansions, and the wealthy are coming back. Nothing has changed in the physical capital of either district: everything has changed in how they are seen and valued.

The same is true of streets and public space. They enable people to move about, access buildings and interact with others, whether on the rutted mud of a Rio favela or the trim

“There may be more sociability on a dusty street in Ouagadougou than on a tidy Milton Keynes boulevard”

verges of a Suffolk commuter village. Beyond a basic functionality, the character and quality of the street does not necessarily affect how people can or do use it. There may be more sociability on a dusty street in Ouagadougou than on a tidy Milton Keynes boulevard - and for reasons of culture and society rather than with the fabric of the place. Indeed, it could be argued that, since these factors, with economic ones, govern how we conceive, build and design, physical capital is no more than the outward reflection of them.

Shaping values and conduct through the built environment

If we can identify use value and cultural value as components of physical capital in the built environment, we also need to be aware of its influence on our conduct: the way in which the place we live allows us to be, not just to do or even to feel. To some extent this is in our own hands, managed either individually (in our homes) or collectively through the endless process of negotiation which constitutes the social contract. But, as the state's power and ambitions over the lives of its citizens has grown with industrialisation, it has become increasingly concerned to create places which will make people live 'better' lives.



This vast subject is central to CABE's mission, and stretches from classical theories of urbanism, through slum clearance and the garden city ideal, to contemporary sociological analyses such as 'What would a non-sexist city be like?'. It remains a very practical concern of planning authorities, architects, designers and those who live and work in neighbourhoods. The concept of designing out crime is an obvious example. Good lighting, greenery, secure grounds and buildings, overlooked spaces and an absence of dark corners change behaviour. They make street crime and burglary less easy and perhaps less tempting; they make residents and passers-by less fearful, and perhaps more sociable. In both cases, the explicit purpose is to change how people behave.

There are serious ethical dilemmas here, though they tend to be glossed over when the issue is crime and safety, since most people are more concerned about an immediate threat (real or perceived) than abstract questions of the citizen's relationship to the state. However, if the aim of policy is to shape the built environment (physical capital) to encourage inclusion, neighbourliness and community relations, they must be considered. To what extent is it acceptable for a planning authority, or an advisor such as CABE, to try to influence, covertly or unconsciously, how people live by changing their environment?

“The big limitation of physical capital is that it is not read, understood or responded to in the same way by everybody”

Physical capital and design

Even if it were ethically acceptable to treat people as laboratory rats, and shape their behaviour by changing their living space, there must be doubts about how far it could be done by managing of the physical fabric of a neighbourhood. The big limitation of physical capital, beyond its use value already described, is that it is not read, understood or responded to in the same way by everybody.

In Britain, more than in many countries, we live among the assets of previous generations, rubbing up constantly against their values, imaginations and social structures. Urban life today is shaped by the Victorian infrastructure of our large towns and cities, though we live in very different ways and have very different beliefs. The past we accept, we cherish (and call heritage) or do not notice; the past we reject, we tolerate or demolish, when we have the money. But whatever we think of

“Baghdad’s physical environment has seen much recent change: little of it, beyond the removal of some public sculpture, has enhanced its residents’ physical capital”

it, we are influenced, consciously and otherwise, by the embedded cultural values of our built inheritance.

Debate, conflict even, over those values becomes much more acute when we build or rebuild. Then we have to make a statement of values about the kind of society we are, no less than our ancestors did, knowing that our statement will stand and be judged beside theirs. Sometimes, as in the second Coventry Cathedral, there is an immediate recognition that what was said was right. More often, there is controversy before, during and after. The difficulties exist because Britain today is both more diverse and more democratic than it was, and the contestation of values is constant and essential.

Even where it is not contested, design is read and responded to differently. A low-maintenance business park may seem bleak to someone who does not drive, or whose only reason for being there is to clean the offices at night; a bustling street market might be read as threatening by someone who lives in a quiet suburb. Moreover, our responses to the environment change, as we do, and as tastes and society changes. The concrete estates of inner Nottingham have been demolished and replaced with low-rise, brick housing. But the councillors who approved the original developments, at huge cost, thought they were providing people with a well-designed environment which would improve the quality of their lives.

→ Physical capital, quality and measurement

How coherent is the concept of physical capital?

It will be evident, even from this brief introduction, that there are problems in describing the built environment (as opposed to objects within it) as a form of physical capital comparable with more established concepts of financial, human or social capital; these include:

- The existence of an established concept of physical capital, grounded in economics, but different from, and narrower than, the ideas so far outlined by CABE
- The difficulty of distinguishing between simple use value (up to basic fitness for purpose), and qualitative value (value added beyond fitness for purpose)

- Physical capital, as envisaged by CAGE, is either in multiple ownership, or not owned in any meaningful sense at all. Consequently, given the inevitably different aspirations of those who control it, it is difficult to see how it can be used to produce general value
- Physical capital is inseparable from complex, contested cultural and social values affecting every aspect of the built environment including whether it is even seen as an asset.

The rest of this paper considers ways in which CAGE might use the concept of physical capital while taking account of these objections.



A working definition of physical capital

Given the established use of the term in economics, any expanded concept of physical capital must build on what is already accepted. That might be expressed as ‘human-made, physical assets with a production use, including infrastructure and producer goods’. But of these elements, only infrastructure - ‘changes to the physical environment that help people to meet their basic needs and to be more productive’ - concerns CAGE: anything moveable lies beyond its remit; (there are grey areas, such as street furniture, but CAGE’s essential concern is permanence). So a working definition of physical capital for CAGE might be:

- Fixed human environmental interventions, producing physical assets with use value.

This purposely ignores aspects of physical capital which are vital from CAGE’s perspective, notably social and cultural value. But CAGE must describe physical capital as a (relatively) neutral resource if it is to open discussion with partners and stakeholders on a clear basis. From there it can work to include a social and cultural dimension that adds value (up to and including economic value) to the basic physical resource.

The quality of physical capital

But, as we have seen, interventions in the physical environment cannot be considered certain assets. Baghdad’s physical environment has seen much recent change: little of it, beyond the removal of some public sculpture, has enhanced its

“The best reason for wanting to assess physical capital is to make changes that improve a neighbourhood”

residents’ physical capital. Even in less extreme situations, the results of environmental change are questionable: in the 1960s and 1970s, the creation of ring roads in cities such as Leicester was seen as an economically sound investment, with little consideration of its impact on the quality of the urban fabric, or how it would be used by pedestrians and others. So physical capital without an assessment of quality is not a very useful term. What then are the criteria of quality against which physical capital could be assessed? There are at least three.

Intrinsic quality

The intrinsic quality of physical capital lies primarily in its fitness for purpose and its longevity. The first relates to the basic concept and design of a building or infrastructural project, and its suitability for the use to which it will be put. The second, obviously enough, relates to the length of its usable life before it is likely to need renovation, restoration or reconstruction. On this basis, the Millennium Dome in Greenwich could be said to have little intrinsic quality as physical capital, since it had no essential purpose to be fit for (the purpose to which it was eventually put was dictated by the structure, evident in the difficulty of finding a subsequent use), and has a planned life of only 25 years before the roof will need to be replaced.

Indicators of the intrinsic quality of physical capital might include:

- The relative degree of productivity enabled by its design
- The quality and life expectancy of materials used
- The ease and cost of maintenance and renewal
- The versatility of the design in relation to potential alternative use.

Use quality

The intrinsic quality of a building or public space is one thing, but it doesn’t follow that people will actually use it according to its designed purpose. Individually and collectively, people are complicated and happily unpredictable. Buildings which work on paper can be disliked and under-used; spaces with little apparent value can attract affection and activity. This is partly because we have different values, interests, aspirations, tastes and needs, so, how we move within and make use of the physical environment varies enormously. What one person

“Physical capital cannot be objectively described, quantified or assessed”

finds warm and familiar, another reads as cold and hostile. And that is not simply a matter of perception: it is embedded into the fabric of places, into the physical capital which is the concrete expression of the needs and values of its creators.

Indicators of the use quality of physical capital might include:

- The unnecessary use people make of buildings and space (i.e. beyond what they need)
- The extent of interaction between people that the space enables
- The patterns of use by different people during the day, week and year
- The range of people who use a building or a space.

Cultural quality

The final aspect of quality in terms of physical capital is cultural. This is subtle, complex and largely invisible. It is concerned with how people read and understand a building. Is it welcoming or alien? Does its design and use connect, or make people uncomfortable? Alsop's Peckham Library is one solution to making a Victorian idea speak to the present residents of inner London, but it may not resonate with those who prefer buildings to look as they expect them to. Equally, the cultural value of a Miner's Welfare may be much greater to local people than that of a new, purpose-built community centre, though the latter may have much better facilities. The cultural significance of Coram's Fields make it a far more valuable site than other urban playgrounds. These aspects cannot be seen, measured or commanded, but they can make a successful building, street or neighbourhood. They need therefore to be understood by anyone concerned with built environment and its impact on the lives of those who use it.

Indicators of the cultural quality of physical capital might include:

- The views of local people about their built environment, including such things as their knowledge, comfort, sense of ownership, memories, interest and dreams
- The incidence of vandalism, and evidence of respect
- The degree to which people are willing to get involved in its life.



A physical capital audit

What is the purpose of assessing physical capital? The worst reason for doing so would be to justify an intervention, a campaign or a programme of work. Changes to the fabric of an area cannot be graded like hotel rooms. When the assessment is made, how, of what, and by whom - these and other factors will shape the results and make them inevitably contingent. It is not possible to make a definitive or objective assessment of something which is so bound up in quality and people. It is possible to learn, and so to make better choices next time.

Besides the intrinsic value of knowledge, the best reason for wanting to assess physical capital is to make changes that improve a neighbourhood. The problem there, however, as we have seen, is that people have very different ideas of what might constitute an improvement. And it is, after all, their

“Rather than physical capital and design being a way to shape society, it could be a way for communities to shape themselves”

neighbourhood. At the moment, most people have limited ability to do anything about the physical capital of their area, even if they personally control some of it, because there are few mechanisms which enable them to take action. A physical capital audit might help redress the balance - especially if it prioritises the process of gathering information and debating its results, rather than the inevitably unreliable and approximate results.

A physical capital audit could, of course, be done by outside professionals, but they would miss much of the use and cultural value aspect of the resources. It would be better to facilitate a process, which might be undertaken by a variety of community organisations, through which residents and owners might be directly involved in considering the physical assets at their disposal and the possible ways in which they might be used to improve the situation.

There are different precedents for this kind of activity, such as Planning For Real and other more arts-based approaches. Thought should be given to whether there is a need for a separate tool - focusing specifically on ideas of physical capital as sketched out here - or whether these ideas can be effectively integrated into existing models to strengthen their capacity to deal with the quality of a place's fabric.

Physical capital and time

The relationship of physical capital to time is complex. On the one hand, it changes very slowly: my street has seen only one new building in the past 10 years, while other changes have been subtle (new street lamps) or important but invisible (cabling). On the other hand, it can change very fast: remove an important building, change the flow of traffic, close a post office, allow a crack house to start up and the quality and value of a physical environment can change overnight. Everywhere changes on its own timetable: conservation areas and poor neighbourhoods will evolve more slowly and subtly than a new development, or a high street.

That makes it very difficult to set a timetable for assessment - and assessment must be linked to time, since only time can record change. It is valuable to be able to compare the physical capital of two neighbourhoods; it is more valuable to compare



one neighbourhood with its former self. But when is the right time to do that? The only answer is to set up a schedule for auditing physical capital which is appropriate to the character and situation of the area in question. That is likely to involve two main elements:

- A major survey, undertaken on a regular timetable - perhaps once every five or 10 years
- A mechanism for keeping the evolution of a neighbourhood under review.

Further thought should be given to how both might be approached in the context of a physical capital audit.

→ A CABE approach to physical capital

This paper has tried to unpick some of the logic underlying the concept of physical capital as it might be applied to the built environment. Although it has identified a variety of useful aspects to the concept, one inescapable conclusion of the analysis is that, except in certain very specific and limited areas, physical capital cannot be objectively described, quantified or assessed. Indeed, it could be argued that what matters most about physical capital, in relation to quality of life, is necessarily subjective.

That need not be a problem: there are many other things that can be quantified. More than that, the subjectivity, changeability and ambiguity of many aspects of physical capital are an opportunity to do something else: to focus a democratic debate about the quality of neighbourhood environments - to look at the fabric of our visions.

Our buildings and public spaces reflect our values, beliefs, ideals, fears and hopes: they are the stuff that dreams are made on. There is much to be gained from developing approaches that go beyond planning debates to engage with the things people feel and care about in the places they live, to give expression to all that which so often goes unsaid or even unthought. It may be that a process - which I have tentatively called a physical capital audit - has the potential to open up those areas of vision, and so engage people more deeply in dialogue about their neighbourhoods.

Rather than physical capital and design being a way to shape society, it could be a way for communities to shape themselves.

Illustrations:

Page 30 *The Old Grammar School*, King's Norton Green, Birmingham, Winner of the BBC Restoration programme public vote.

Page 33 *The Asset Pentagon* 'was developed to enable information about people's assets to be presented visually, thereby bringing to life important inter-relationships between the various assets': Andhra Pradesh Rural Livelihoods Project <http://www.aplivelihoods.org>

Page 36 Photo by Mark Ellis

Page 38 Photo by Joe D Miles

Page 44 *Peckham Library* by SAPL, University of Newcastle

Other illustrations by the author

Notes

¹ Love, which certainly fits the concept of capital as defined by classical economics, has not yet been discovered as a form of capital, but there is still time.

² Raymond Williams (1986) *Keywords, A vocabulary of culture and society*, London.

³ Analysis by Stephen Borgatti, Associate Professor, Organization Studies Department, Boston College, USA. See http://www.analytictech.com/networks/definitions_of_social_capital.htm (checked 5/8/2004).

⁴ http://en.wikipedia.org/wiki/Physical_capital (checked 5/8/2004); the authors of this entry go on to observe that 'Such analyses, however, fail to make distinctions considered critical by many modern economists. Natural capital grows, while infrastructural capital must be built. Even 'balanced' economic growth includes many processes thought to be, or lead to, uneconomic growth. Human capital requires rest and must make choices whether to seek rest or income, which physical capital does not make. Accordingly, the designation as 'physical' has come into some recent dispute.'

⁵ Birdsall, Nancy (2000) *Human Capital and the Quality of Growth*, World Bank Institute's Development Outreach ; http://www.ceip.org/files/Publications/HC_growth.asp?from=pubauthor (checked 5/8/2004). Such reservations did not, of course, figure in the emerging European welfare states of the 1950s and 1960s.

⁶ http://www.aplivelihoods.org/physical_capital.html (checked 5/8/2004).

⁷ The omission of cultural capital from this particular model of development is notable.

⁸ Brief for think-pieces on the definition of 'Physical Capital', CAFE 2004.

⁹ Dolores Hayden (1981) 'What Would a Non-sexist City Be Like? Speculations on Housing, Urban Design, and Human Work' in Richard T LeGates and Frederic Stout (1996) *The City Reader*, London.

Value of place

Can physical capital be a driver for urban change? The experience of Castle Vale, Birmingham

Ali Madanipour
University of Newcastle upon Tyne

Castle Vale was the largest housing estate in Birmingham when it was built in the 1960s as part of the city's slum clearance plan. But 20 years on it had become rundown and dilapidated, a byword for crime and unemployment. Under the management of the Castle Vale Housing Action Trust, all but two of the 34 tower blocks were demolished, new homes were built, existing ones refurbished and shopping centres and health services added. The socio-economic turnaround has been dramatic, and the scheme has won numerous regeneration awards.

The old estate was highly recognisable for its modernist architecture, but when things began to go wrong, this distinctiveness became a stigma. The rebuilt estate has a low-rise suburban feel, and has been deliberately turned into a 'normal' neighbourhood. This has removed the stigma attached to living in Castle Vale, but it is not yet clear whether the solutions chosen will be successful in creating a neighbourhood that is sustainable in the long term.

The apparent success of the estate's regeneration lies in a mixture of sensible governance, good urban design and consistent funding. The benefits initiated by substantial physical change have been sustained through an efficient maintenance regime. Physical change has been backed up by social and economic measures, including the provision of training, and more efficient transport to overcome the estate's relative isolation. The end result has been an increase in house prices, and a waiting list to move on to the estate, reversing the situation of 10 years earlier.

The Housing Action Trust is being wound up and responsibility for the estate passes to Birmingham City Council. It remains to be seen if the council will be able to bring the same commitment or resources to bear in its management of Castle Vale.

→ Castle Vale was the largest modernist housing estate in Birmingham. It was poorly designed and built in the 1960s, and badly maintained afterwards, to the extent that many properties suffered from damp and condensation and were difficult to heat. For more than a decade, a major programme of renovation worth £315 million has dramatically transformed the area from a declining housing estate to a popular place with far better physical and social conditions, where people from other parts of Birmingham now seek to live. The dramatic success of the scheme shows a combination of factors at work. Most of the capital expenditure in the area, however, was in the built environment. This raises the question: how far and in what ways was the development of the neighbourhood's built environment instrumental in its overall improvement, including its social and economic conditions?

→ Objectives and methods

By using the case study of Castle Vale, the report searches for some answers to a more general question as to whether and how physical improvement can be a driver for socio-economic improvement in a neighbourhood.



Castle Vale School

In other words, can investment in physical capital be a precursor to the growth of social and economic capital? If physical capital is, as defined by CABI, “the potential value - financial, social and cultural - of the built environment”, then the question is whether this potential value has been realised in a real life case and in what ways. As an area that has undergone radical change, Castle Vale provides an ideal opportunity for comparing a neighbourhood with its own past, and analysing the role of physical capital in the improvement of its overall conditions. The objectives of the study are, therefore, to investigate the process of urban transformation in Castle Vale, particularly as understood by the stakeholders involved; to analyse its physical capital, and to search for linkages between “potential value” and “realised value” of the built environment. These would help finding out whether and how physical capital has been instrumental in social, economic and cultural improvement.

The case study was conducted in January and February 2005 by collecting information from a variety of sources: published documents, brochures, CDs, websites, reports, and interviews with stakeholders. In particular, the Castle Vale Housing Action

“Can investment in physical capital be a precursor to the growth of social and economic capital?”

Trust, the Tenants and Residents Alliance, and Castle Vale Community Housing Association have been very helpful by providing support and information. Within the limited timescale of the project, only a general picture could be developed, which could be used for further, more extensive research in the future.

The report is structured in the following sequence: our first task is to establish whether the regeneration of the area has been a success and find out about its main reasons. Second, we analyse the physical features of the regeneration. Third, we investigate the links between the physical change and social transformation.

→ A successful regeneration?

Just before the second world war, Castle Vale, an agricultural area near the village of Castle Bromwich on the outskirts of Birmingham, was turned into an airfield. Vickers produced Spitfires here, which were tested and displayed in the airfield, which later became the home of the British International Fairs. In the 1960s, a housing estate of 5,000 homes was developed on this site, relocating around 20,000 residents from the city through slum clearance, becoming the largest of its kind in Birmingham. It was warmly appreciated by those who resettled there, for giving them much better housing quality than they had before. Like many similar estates around the country, however, it soon fell into a spiral of decline, mainly through industry's ongoing slump, lack of public sector funds and care, and a growth in transient population through housing allocation. The neighbourhood suffered from poor quality infrastructure and buildings, lack of services, fear of crime and vandalism, poor health, unemployment, low educational standards, and a poor image. Companies avoided the B35 postcode, where a mortgage could not be obtained. By the early 1990s, the Vale's population was 11,000, of whom 71 per cent lived in social rented housing.¹ In 1993, it was transferred from Birmingham City Council to Castle Vale Housing Action Trust, which was set up after 92 per cent voted in favour of the move. The Trust's period of tenure has been 12 years, until March 2005, during which a series of regeneration schemes were planned and implemented, resulting in radical change. What has been achieved is remarkable in both physical and social terms,

“What has been achieved is remarkable, raising the residents’ life expectancy by five years”

summarised as: building 1,464 new homes, refurbishing 1,333 homes, demolishing 2,275 homes including 32 out of 34 tower blocks, building two new shopping centres, an enterprise park and a range of health facilities, and providing 3,415 training places, all at a cost of £315 million². The effect of this was to raise the residents’ life expectancy by five years, created 1,461 jobs, and reduce the unemployment rate from 28 per cent in 1993 to an average of 5 per cent in 2004 (as compared to Birmingham’s 7 per cent average).

Castle Vale’s regeneration has won national recognition and a series of awards: the Secretary of State’s Award for Partnership in Regeneration in 2000; the Birmingham Forward Prize in 2002 for ‘an outstanding contribution to the city’; the Midlands Excellence Award in 2003 for organisational excellence; the West Midlands Construction Forum Building Quality Award in 2003; a special mention by the Civic Trust for the new Centre Park in 2003, and a visit by the Queen.³ The Trust’s regeneration efforts are also validated by a series of reports they have commissioned in the final year of their tenure: studies on health, social and economic baseline, and residents’ evaluation and perception; as well as post-implementation reviews on the redevelopment of the shopping centre, road improvements, home refurbishments, empowerment and resident involvement, community safety, race equality, environment and leisure projects, economic and community development programme. Further independent research is needed to establish the extent of the Trust’s success. However, the available evidence suggests that the regeneration of Castle Vale has been undoubtedly successful in some important respects.

At least three sets of reasons can be identified to explain the success of the scheme: funding support, inclusive governance, and an integrated approach. There was £205 million in government funding, in addition to which a further £109 million was secured from other sources. The regeneration of Castle Vale shows some features of good governance, including a single agency being responsible for regeneration and based in the neighbourhood, partnership with stakeholders and a strong presence of the residents in the process, institutional continuity throughout the project’s lifetime and afterwards through successor organisations. Availability of funds and creation of

inclusive governance could have limited effects if they were only mobilised to address physical change. However, with careful planning and combining physical and social measures, the regeneration process has become much more effective.

→ **Castle Vale's physical transformation**

From building form to the organisation of the neighbourhood's space, its streets and open spaces, and patterns of density and tenure, Castle Vale has undergone significant changes.

A strategic plan for change

The Trust's vision for Castle Vale's future was "a self sustaining community living in high quality homes in a pleasant and safe environment", where its "residents will enjoy an improved quality of life and economic opportunity" and are able to make "choices regarding ownership and management of their homes". It set out to work with the residents and others with the aim of achieving "sustainable physical, economic and community regeneration", and providing "high quality services, value for money and equal opportunities".⁴ The Trust commissioned Hunt Thompson Associates to prepare a masterplan in 1994, which it more or less followed through, with some notable exceptions.⁵ The masterplan formulated a clear spatial outcome, plus environmental, economic, and community development proposals. The planning process, which involved residents and a range of other stakeholders, therefore, helped clarify the vision further, formulate the strategies and actions needed to achieve it, and provide a programme of work for the Trust's period of tenure.

"By the early 1990s, Birmingham Council had concluded that 14 tower blocks were beyond repair"

From high rise to low rise

When the area was bought from the Air Ministry in 1955, the debate was whether to build a garden city for 15,000 or tower blocks for 20,000 inhabitants.⁶ Eventually, 34 tower blocks and 27 four-storey maisonettes were built, alongside low-rise housing. Tower blocks however, soon became unpopular; they were poorly built, suffering from structural, maintenance, and management problems, and housing a transient population. By the early 1990s, Birmingham Council had concluded that 14 tower blocks were beyond repair. Maisonettes provided three-bedroom family housing, but were very unpopular for being poorly insulated and expensive to heat, and with limited access to gardens.



Castle Vale in the early 1990s



Castle Vale in 2004

“As its social problems accumulated, physical distinction was turning into stigma”

The Trust demolished 32 tower blocks, all maisonettes, and 114 bungalows, as being the most economical solution, going beyond the demolition levels proposed by the masterplan. This resulted in 62 per cent reduction in the Trust's stock, specifically focused on reducing the high-rise units by 96 per cent. At the same time, around 1400 new units were built in the form of family houses and low-rise flats. All together, 2,275 households were rehoused. Change in the building form has transformed the area dramatically, and it is seen by residents as one of most important improvements in the neighbourhood.⁷

Low densities

The area's population of 11,000 has been reduced to 9,000, mainly due to the departure of many residents at the beginning of the project, when compensation and enhancement schemes enabled those who did not wish to go through the process be relocated elsewhere. However, as the members of the Tenants and Residents Alliance stress, no one was forced to move. This major demographic change must have had a significant impact on the social climate of the neighbourhood, perhaps even explaining some of the improved socio-economic conditions.⁸

The combined result of the reduction of housing units has been a reduction in density, from 25 to 21 dwellings per hectare (based on the masterplan's figure of 200 hectares as the size of the neighbourhood), or from 20 to 17 (according to the Trust's figure of 2.5 square kilometres). The average density, therefore, is far below the minimum density of 30 dwellings per hectare that is the current national recommendation. This recommended figure equates to 12 per acre, that is, the traditional suburban density in the UK, and is itself far below the average 20 per acre that terraced housing provided. Low densities, however, have not resulted in larger homes. As some residents complain, the old houses were built to Parker Morris standards, and so were typically larger than the new ones. The attempts to achieve higher densities, such as the three-storey flats, are seen as difficult to use by the elderly for moving furniture in the absence of a lift.



New three-storey flats



One of two remaining towers

The impact of very low densities is clearly felt in the neighbourhood's space. Some new spaces, such as the second neighbourhood centre, have an urban feel through better proportions between the height of buildings and the

“The demolition of high-rise buildings has reduced the neighbourhood’s physical distinctiveness, turning it into an ‘ordinary’ suburb”

width of roads; and there have obviously been attempts to create spatial coherence through building design and layout. The street-level experience of the neighbourhood, however, conveys little sense of enclosure. Questions that would emerge include: Can very low densities provide a sustainable approach to the use of land? Can the reduction in population density solve, rather than displace, social problems?

A ‘normal’ suburb

Two features have changed the character of the neighbourhood: low-rise, low-density housing and a retail park. This change has removed the stigma and appears to be making the neighbourhood similar to other suburban areas, which is satisfying the residents, despite all the aesthetic, social and environmental problems associated with suburbs. Creating a successful suburb was indeed part of the original vision of regeneration. As the Trust’s Chairman reports: “Eleven years ago I had a vision that one day Castle Vale would become a suburb of which not only its residents, but also Birmingham, would be proud.”¹⁰



Low-rise, suburban housing in Castle Vale

The area now looks and feels more like many other suburban housing estates in the country. The housing styles do not all conform to the traditional suburban typology of semi- and detached houses; nevertheless they are predominantly suburban, which is a sign of, or at least a step in the direction of, the neighbourhood’s normalisation. The stigma of living in tower blocks and dilapidated public environments has now been largely removed. It may now be similar, in its building forms and layouts, to some neighbourhoods around the country that continue to suffer from acute social problems; but for Castle Vale the change in building form has been a step forward. Another sign of this suburban normality is the main shopping centre, which has been built in the form of a suburban retail park, where a large supermarket and other shops are surrounded by a sizeable parking lot.

Signs of suburban normality are not necessarily positive aesthetic features, or markers of sustainability. Furthermore, suburban normality here may not conform to that of the wealthier neighbourhoods. However, such signs of conformity may be a good indicator of Castle Vale’s perceived success, as it now can be considered a “normal” neighbourhood, rather

than a troubled and stigmatised housing estate. This neighbourhood's location on the city's periphery could obviously not be changed; now the character of the neighbourhood has changed to fit the overall typology associated with such location. The neighbourhood's character has largely changed through the removal of some of the symbols that caused stigmatisation, and hence allowing the neighbourhood to appear to be one like the others, even though this neighbourhood and the others may still have a long way to go to.

A distinctive neighbourhood

The old Castle Vale had its distinctive physical identity, as a housing area developed in modernist style and on a site that was separated from the surrounding areas by roads and open spaces. In this sense, it was a distinctive neighbourhood, which is advocated by some as a feature of good urban design. But this also worked against it; as its social problems accumulated, physical distinction was turned into stigma. Its distinctiveness was also reflected in tribal behaviour by its younger residents, who would get into fights with the surrounding neighbourhoods. These are signs of the double-edged nature of creating distinctive physical and social identities. These can promote a place when the conditions are right and can entrap it otherwise, generating a degree of coherence for the locality, while posing a threat of fragmentation for the city as a whole.

Although the Trust felt positive about the notion of urban villages, it aimed to adapt the concept to the special circumstances of the area, as it correctly stressed that "Castle Vale is not, nor should it become, an island".¹¹ This showed recognition of the pitfalls of establishing artificial boundaries to separate an area from the rest of the city. What has made cities successful has been the diversity and richness that many overlaps have created, not the neat separation of its areas and activities.

The demolition of high-rise buildings has reduced the neighbourhood's physical distinctiveness, turning it into an "ordinary" suburb, which is one of the key features of its success. The fear of stigma, however, has not gone away, and there are new signs of distinctiveness in the neighbourhood, which concern some as being interpreted as potentially stigmatising. The residents are, therefore, sceptical about some



Farnborough Road's new housing development

new building forms. For example, the new buildings on Farnborough Road seem too controversial in style and not matching the rest of the area's newly acquired air of normalcy; as one resident puts it, "it is an architect's dream and a resident's nightmare". Would, for example, a normal suburban housing estate include bright-coloured buildings and strange-looking public art objects? In this sense, avoiding distinction is a conservative tendency also found in other suburban neighbourhoods. The fear of standing out, and subsequently being found out as vulnerable, is hidden deep down in people's memories. The fear of being experimented upon, rather than being given what the better off routinely get, generates nervousness.

The Trust also showed awareness of the pitfalls of creating artificial distinctions within the neighbourhood: when the new Farnborough Road buildings were developed, they were

allocated to a mix of Castle Vale residents and newcomers, to avoid the association of a particular area with a particular type of resident. This overrode physical distinction with the help of social mixing, avoiding any divisive physical and social distinctions.

The transfer of management from the city council to the Trust, and the range of institutions that were set up with particular focus on Castle Vale, have helped create institutional distinctions for the neighbourhood. The Trust has been able to look at the neighbourhood as one whole unit, enjoying political and financial support, benefiting from long-term institutional continuity, which has made strategic thinking and acting possible. In this sense, planning and urban design intervention in the form of masterplanning has been a vehicle of strategic decision-making.

By recognising that social distinction may result from physical distinction, we are confronted with the question of fairness and equality of treatment. Would the residents of Castle Vale's neighbouring areas, or indeed other parts of the city of Birmingham, feel that they also deserved to be looked after in the same way as Castle Vale has been? By creating new physical distinctions for Castle Vale, just by virtue of public investment in new development and refurbishment, are there new social distinctions that some may find unfair?

Streets and open spaces

The streets of the old Castle Vale were designed on the Radburn pattern, segregating pedestrians from vehicles, leaving many properties without car access and making it difficult for a visitor to find addresses in the neighbourhood. A network of alleyways, originally thought to be havens for pedestrians, had become unsafe and unkempt places. While the Radburn pattern has remained unchanged overall, a number of adjustments have been made to provide car access to as many homes as possible. Alleyways have been gated or integrated into the housing units, as have some parts of public spaces, to reduce the possibility of crime and the public authorities' burden of maintenance. The overall amount of public open space has been reduced, which some residents complain about, thinking that too many buildings have been built to replace green open spaces. The reduction of public



The Central Park

open spaces should in principle be treated with caution, especially when converted to private property; though in Castle Vale the very low densities and vast tracts of open space make some adjustments affordable. Furthermore, new open space has been developed, notably the Central Park, a completely new park praised by residents and outsiders. In parallel, smaller parks and playgrounds around the neighbourhood have been improved. Now residents say they feel free to walk in the streets at night without fear of criminal gangs, who dominated the neighbourhood in the past.

The stretches of open space that separate the neighbourhood from the rest of the city, and parts of the neighbourhood from one another, were originally put in to create and maintain physical distinctions for the neighbourhood and its sub-sections. However, they are now barriers to creating spatial coherence, and to making connections from across these wide gaps. Road widths and building setbacks make it difficult for the street to function as a unified space, undermining the vibrancy of activities that can take place there. Such degree of enclosure is now only starting to appear in some places such as the new neighbourhood centre or some internal courtyards. The masterplan proposed splitting Castle Vale into 12 neighbourhoods, developing strategies for environmental and infrastructure improvements in each. This may have been a practical necessity for the Trust as an administrative device, as they have then been able to develop localised plans for change in connection with the overall masterplan. Thinking at the scale of 9,000 people spread across a rather large area may be daunting without such a division. There are some public art objects used as markers to show the distinctiveness of these sub-neighbourhoods. However, this is less evident to the visitor, as building styles and road layouts, which are partly inherited from the past, do not easily create such distinctiveness. Neither is it evident to the residents, who have a clear sense of identity for Castle Vale as a whole, and some geographical distinctiveness between some areas inside it, but associate no particular significance to these sub-neighbourhoods.

Focal points

Two neighbourhood centres and the Central Park form a central axis, which provides services and acts as the area's backbone. Clustering of neighbourhood services, such as

“As responsibility reverts to the City Council there are fears that litter will come back and that standards of maintenance will deteriorate”

shops, health facilities, the community housing association and residents’ organisations, police, and multi-agency services have all given these two neighbourhood centres enough strength and attraction to become its key foci.

According to the masterplan, the urban village concept promoted an area with a population of 3000-5000 people living within 900 metres of a centre; and because it was felt that two centres were needed for Castle Vale, it was envisaged as two urban villages.¹² The distinction between the two centres, however, has not created any sense of distinction between the two physical halves of the housing estate. In other words, while the two centres have become significant nodes, they help establish a single identity for Castle Vale as a whole. Furthermore, unlike the idea of providing local centres for limited populations, as the urban village concept would propose, the new retail park is drawing people from surrounding areas, becoming a sub-regional centre rather than a neighbourhood one.

The development of the retail park, particularly Sainsbury’s supermarket, has been a major turning point in the neighbourhood’s story. It provided access to daily goods, which is so often lacking in deprived neighbourhoods, as they are avoided by retailers for fear of crime and lack of customers. By the establishment of Sainsbury’s, confidence in the future of the area grew among the residents and others in the city. It could now attract shoppers from the surrounding areas, and establish Castle Vale as a significant suburban centre. Though the supermarket may be too expensive for some residents, they appreciate the change from the old, dangerous and dilapidated centre.

Rather than looking inwards and sitting at the heart of the neighbourhood, as conventional neighbourhood design would recommend, it is located on the edge, facing the major road, and looking outwards. This makes the supermarket more visible to more people, attracts visitors and shoppers, links Castle Vale to the surrounding areas, and generates a degree of vibrancy for the area that an introverted centre could not provide, while ensuring that the new traffic is not intrusive for the neighbourhood. A suburban retail park is often located at a distance from residential neighbourhoods and is rightly



New Sainsbury's supermarket

criticised for adding to car-dependency and taking the livelihood away from the urban centres. In Castle Vale, however, where no adequate shopping facility was available, this was a major step forward, even though its typology could take different forms other than that of a commercial strip or a retail park. Once again, it was normality that was the key, rather than how to transform the conventional.

Neighbourhood designers often recommend creating local services for local people, located at the centre of the neighbourhood. In wealthier neighbourhoods, this may reduce some trips, but cannot offer all the services that are needed; however, the residents have the mobility to travel long distances for the services that are not available there. Such mobility, however, does not usually exist for the residents of poorer neighbourhoods, who have to rely on what is available nearby. The residents' limited numbers, and their economic weakness, however, limit the range and quality of services available. For these services to become viable, without receiving public subsidy, they may have to be shared with the neighbouring areas, as is the case now in Castle Vale.

Diversification of tenure

One of the aims of the Trust has been to encourage the diversification of tenure, through Right to Buy, acquisition of freehold, and Self Build, resulting in increased proportion of owner occupiers from 29 per cent in 1994 to 39 per cent in 2004. Most of the improvement, however, has been in the social rented sector, i.e. the rest of the neighbourhood. Owner-occupiers are spread across the neighbourhood, which was posing a challenge to the Trust from the beginning. While public investment has dramatically improved the social rented housing, the owner occupiers have been unable to do the same to their own properties. The difference in appearance between social and private ownership has now largely disappeared, removing the stigma. However, the owner occupiers feel undermined, as they only have benefited indirectly and to a limited extent from the massive programme of regeneration that they have lived through.

Phasing

Construction work started in the west, nearer to Birmingham, and worked its way to the east. Building demolitions,

refurbishments, and the development of new homes and neighbourhood facilities have been going on for the past twelve years, while work on the second neighbourhood centre continues. Work on open spaces has started relatively lately, so that different contractors can be used, and the regeneration schemes across the neighbourhood can be finalised at the same time. Therefore, rather than phasing the development so that one phase is fully finished before the next one starts, the whole neighbourhood has been undergoing development activities throughout the period of regeneration. The result has been a degree of coherence in details and appearances, as well as clarity in working with contractors and ease of housing management. It has also resulted in a tough time for the residents, some of whom felt to be “living on a building site for twelve years”.

Maintenance and repair

The Trust used its resources to enhance municipal services in the area, such as street cleaning and maintenance of public spaces. It resurfaced the streets and changed the street lighting. However, as responsibility reverts to the City Council, there are fears that litter will come back, and that the standards of maintenance once again may deteriorate. Although successor organisations are given the mandate and financial support to undertake the essential maintenance, they need to prove themselves to the residents that they have the same effectiveness and resourcefulness as the Trust before them. In this sense, sustainability of the area needs to be ensured. What are the prospects of keeping up the energy and drive that gave this neighbourhood its current vibrancy? The successor organisations may do their best, but would they have the institutional remit and support that the Trust enjoyed? Would the economic climate remain positive? Would the renovated physical environment be kept in good conditions for long? Much depends on how Birmingham City Council, successor organisations, and residents can work together to deal with these concerns.

Combining physical and social measures

The Trust’s biggest task has been the physical transformation of the area. However, the approach that was adopted from the beginning was to combine physical transformation with community and economic development as well as

“Physical improvement
has changed the
area’s image”

environmental care. By making proactive efforts to provide targeted training and linking it to secure employment opportunities for the residents, by running schemes to reduce crime and anti-social behaviour, by supporting education, and by providing health care facilities and schemes for the area, the regeneration process has been able to tackle some of the most difficult issues of the neighbourhood and show a degree of success. These social measures need to be separately studied, and this report cannot deal with them properly. Without them, however, the effects of physical transformation would have been far more limited, as shiny new houses would not meet all the needs of a population suffering from high unemployment, poor health, poor skills and education, and high-level crime. The regeneration’s integrated approach, combining physical and social measures, therefore, has been an important key to its success.



*Getting the bottle in by
the local artist Paul Hill*

Falling unemployment and crime are national trends, which are also manifest here, and in comparison with the neighbouring wards. In other words, the current regeneration achievements would have been more limited if they were set in an adverse national context. Furthermore, Birmingham's successful attempts at urban regeneration, particularly in its central areas, are well known, providing a context for the regeneration of other parts of the city. However, Castle Vale shows well above average improvement, indicated by unemployment rates that are now below the Birmingham average. Whilst benefiting from a local and national upward trend, there are additional factors here that have caused these positive results, which attract people from elsewhere to want to live here, as evident in the long waiting list for housing and schooling.

→ **Physical transformation as a driver for overall regeneration?**

The economic dimension of physical regeneration cannot be denied, but what are the other factors at work? We can identify the functional value of the place and how it can generate symbolic value for people.

Exchange value

The notion of physical capital is an integral part of the economic process, as the development industry circulates resources and transforms them into long-term capital. It draws on the strength of the economy: more buildings and roads are built when the economy is in good shape; in return, they also fuel further economic activity by providing the necessary infrastructure. By diversifying tenure, adjustments in housing supply, and investment in physical stock, the process has improved the area's property market conditions, as evident in the rising house prices. This may be economically beneficial to the development industry, its investors and home owners. However, how can the development process help the social housing residents of regenerating neighbourhoods, those who do not benefit from property market conditions? What are the non-economic benefits of physical transformation for all the residents? In other words, what are the values of place beyond its exchange value?

Reduction in a property portfolio to such an extent can only be expected from a public body. In Castle Vale, the main target population for housing improvements has been the social

housing residents, and it is the owner occupiers who feel undermined, even though they have benefited from the process through rising property values. There seems to be overall a positive evaluation of the neighbourhood's regeneration by both types of residents as well as outsiders; therefore, it seems that the regeneration process has provided some other forms of value. The example of Castle Vale, therefore, should show us the multiple values of physical improvement to the overall regeneration of the neighbourhood.

Use value

Physical improvement has produced spaces that are better serving their purpose, and hence better serving the people of the area, that is generating new use value. The old housing units, open spaces and the neighbourhood centre were not serving their purpose anymore, if they ever were doing so properly. They needed to become useful to the people of Castle Vale. Even when housing is at a good standard, lack of access to good local shops and other facilities is one of the key problems of disadvantaged neighbourhoods. By providing better homes, better streets and open spaces, and better, safer neighbourhood facilities, the physical improvement programme has undoubtedly served its primary purpose. There may be disagreements on some aspects of this process, but by and large it has satisfied its target population. Functional value, therefore, has been provided by the development process.

At smaller scales, it is also possible to see the impact of physical change on the better functioning of the neighbourhood. For example, employment opportunities have been supported through increased mobility. The area is physically separated from its surroundings, by the M6, railway lines, and major roads. When the area was first developed, it relocated people who had limited mobility to an isolated location on the outskirts of the city, reducing their chances of finding jobs. As the industries around them declined, the area's residents could not have the necessary mobility to search for jobs elsewhere. Now, at least two measures have been introduced to overcome the negative impacts of physical distance and geographical marginalisation. A subsidised bus service to work has been introduced, and private parking spaces have been provided and improved, as a result of which more people have been able to buy a car without fear of crime

“The physical regeneration process provides the possibility of shared experience among the residents”

and vandalism, hence looking for work elsewhere. Another example is reducing crime and vandalism through making micro-adjustments to public spaces, so as to reduce the areas that are not looked after by anyone, while creating new, better quality public spaces for the neighbourhood with the provision of park keeping.

Symbolic value

In addition to the exchange and functional values of the place, which refer to what it does and how much people are prepared to pay for it, it has also a symbolic value, which refers to what it represents and means for people. This includes a wide range of personal and social meanings, and here we can only touch on some of the collective meanings that have a bearing on regeneration.¹³

Positive image

Physical improvement has changed the image of the area, both in the minds of residents and outsiders. As a result, the old stigma has largely disappeared, and a new vibrant image has helped attracting new residents and activities, and creating new opportunities and higher hopes for future for the existing residents. The result is that physical capital has been translated into social and eventually to symbolic capital¹⁴, improving the relative social disposition of the neighbourhood in the city.

Shared experience

The physical regeneration process provides the possibility of shared experience among the residents, which is at the core of any process of social integration and community building. Shared experience through festivals and cultural events, as used in community development schemes, can bring people together. But even stronger than this is the shared experience resulting from a process that takes years to unfold and goes much deeper in affecting a group, such as the redevelopment of their neighbourhood. If this is overall a positive experience, it can generate a great deal of social capital, through establishing trust and mutual support among the residents. If successful, the outcomes of the development process can generate a sense of common interest among those who are immediately affected, leading to emotional investment in the neighbourhood's people and places. However, if it goes wrong, or if the residents are not involved in the process, as was often

the case in large scale redevelopment schemes in the past or even now, feelings of alienation and marginalisation intensify.

Confidence and trust

Making real and substantial changes in people's conditions has attracted their trust, especially as they have been a party to the process and feel they have influenced it in significant ways. People have felt that they are being looked after, rather than being abandoned, as many residents of deprived neighbourhoods feel. They also feel that they have been enabled to look after themselves, through an effective and inclusive system of governance, which has created confidence in themselves and hope for the future. Combining physical and social measures brought about many new opportunities for the people of Castle Vale. It was their positive outlook, enhanced through their involvement in the regeneration process, which enabled them to take advantage of these opportunities. Optimism has been a major outcome of the physical regeneration, releasing new energies that were not utilised before, both in residents and other partners. As one resident puts it, HAT brought hope to Castle Vale, when there was despair.¹⁵

“The fear of standing out, and subsequently being found out as vulnerable, is hidden deep down in people's memories”

The role of design

It is of course important to avoid physical determinism - the idea that the physical is sufficient to transform the social - instead recognising how the social and the physical are interrelated. The three sets of values are often intertwined in different proportions according to circumstances, and there is always a danger that one may be given priority over the others. Nevertheless, exchange, use and symbolic values together constitute the physical capital of a place. Good design is the process that can help achieve these values, as it engages with all of these aspects and can combine them in new and exciting ways. The Castle Vale masterplan contains some elements of good urban design, such as reinforcing the centre and the provision of a new central park. Buildings and open spaces in the area also contain elements of good design, which have created a sense of relative good quality, even though their aesthetic expressions are not always convincing to residents, such as the architectural language of some buildings, the park's gates and fencing, or some public symbols.

Households that buy their house in a desirable location improve their actual conditions of life as well as improving their social positioning. Private firms that develop new buildings for their headquarters both create spaces fit for their use as well as demonstrating to others their strength and optimism in the future of their company. Public investment does the same in the deprived neighbourhoods, creating new and better spaces for use, as well as generating trust and optimism in the future of an area. Public investment can also create a market, preparing the ground to attract the attention of the private sector. By improving the real conditions as well as the image of the area, and by displaying the trust of the government in its future, public investment shows the existing and future residents that the area is on an upward trend and they can safely invest there financially and emotionally. Ensuring the high quality of the built environment through good design is one way of making the best use of public investment. After all, a good urban environment is one that is good in all its parts, and not only in its showcases and wealthy neighbourhoods.

→ **Conclusion: the values of place**

The experience of Castle Vale shows the combined effects of good governance and funding support, which has effectively managed the process of regeneration through an integrated and holistic approach, combining physical and socio-economic measures. The resulting physical environment has better economic value, is serving the needs of residents better, and has a richer symbolic value, through its positive image, providing shared experience of change, and the development of confidence and trust. Through functional and symbolic values, which were brought together in the planning and design process, the renovated built environment has been instrumental in overall improvement of the neighbourhood's conditions. Physical capital has been translated into symbolic capital, which is the key link between physical improvement and socio-economic improvement. By generating a new infrastructure and a new image, which was only possible through the public sector's sustained support and commitment, the neighbourhood enjoys better quality of life, as well as confidence, optimism in the future, and a sense of ownership and hope. Physical capital has, therefore, improved Castle Vale's functional value. Its symbolic value, has also improved its relative disposition in the city, thus enabling it to

“Without care and constant investment and reinvestment in any form of capital, it dwindles and perishes”

benefit from an overall improvement in the national economy. The levels of hope were high also when the estate was first built in the 1960s. City authorities, planners and designers, as well as the new residents, thought that a good quality neighbourhood had been built and a bright future lay ahead. They thought that they had used good design to direct urban development at the service of improving the living conditions in the city. Is the current wave of optimism comparable to this first wave, both rooted in massive public investment schemes? Will this phase be as vulnerable as the last if the momentum and maintenance is not kept up? The notion of physical (and other forms of social and economic) capital entails a process of continuous accumulation and maintenance. Without care and constant investment and reinvestment in any form of capital, it dwindles and perishes.

We should of course avoid the pitfalls of physical determinism, and see this improvement in the context in which it took place, rather than seeing physical improvement as the sole cause of regeneration. As the failures of the first development of the neighbourhood show, much more needs to be done to succeed. The potential limitations of a brief study such as this on a substantial regeneration process such as Castle Vale's can be overcome through further independent research.

Illustrations:

Page 55, 58, 60 By Castle Vale Housing Action Trust. Other photographs are by the author.

Notes and references:

¹ www.birminghamuk.com/castlevale.htm, accessed 14 Jan 05; Housing Action Trust's Annual Report and Accounts 2003/2004, p.3; Castle Vale Master Plan, September 1995; HAT as Landlord: Lifetime achievements 1994-2004, December 2004.

² Castle Vale Housing Action Trust, 2005 Calendar, Celebrating 12 Years of Change.

³ Castle Vale Housing Action Trust, Annual Report and Accounts 2003/2004, p.7

⁴ Castle Vale Housing Action Trust, Annual Report and Accounts, 2003/2004, p.2; www.castlevalebham.fsnet.co.uk/regeneration.html, accessed 13 Jan 05

⁵ Castle Vale Housing Action Trust, Castle Vale Master Plan: Written Statement, September 1995.

⁶ Castle Vale Masterplan, p.6.

⁷ MORI survey conducted in 2004.

⁸ This point needs further study to be ascertained.

⁹ Castle Vale Masterplan, p. 5; Castle Vale Chronicle, Issue No.7, 2004, p.1.

¹⁰ Annual Report and Accounts 2003/2004, p.3

¹¹ Masterplan, p.35

¹² Masterplan, p.35.

¹³ I have discussed these dimensions more fully in *Design of Urban Space* (Wiley publishers, Chichester, 1996) and *Public and Private Spaces of the City* (Routledge, London, 2003).

¹⁴ For this translation, see Pierre Bourdieu's *Pascalian Meditations* (Polity Press, Cambridge, 2000); see also John Searle's *The Construction of Social Reality* (Penguin, London, 1995)

¹⁵ Vale fm, 2004, *Voices of the Vale: Perspectives from a transformed community*, CD produced for Castle Vale Housing Action Trust.



Dr Geoff Mulgan

In September 2004 Geoff Mulgan CBE took over from Sir Peter Hall as director of the Institute of Community Studies. Between 1997 and 2004 he had a number of roles in government: he established and directed the government's Strategy Unit and served as head of policy in the Prime Minister's office. Before that he was founder and director of Demos, described by the Economist as the UK's most influential think-tank. He has been a reporter for BBC TV and radio and a columnist for national newspapers including the Guardian and Independent. He has two books forthcoming in 2005/6: *Good and Bad Power*; and *The Art of Public Strategy*.



François Matarasso

François Matarasso is an independent writer, researcher and consultant. Since 1994, after 14 years working in community arts, he has focused on project support and research, including groundbreaking work on the impact of participation in the arts. He continues to work on cultural programmes - currently on heritage and community development in South East Europe - maintaining the link between ideas and practice. He has undertaken work for UNESCO, the Council of Europe, government departments, local authorities, NGOs, foundations and cultural bodies in over 20 countries in Europe, Latin America, Asia and Africa. His work has been widely published and translated.



Professor Ali Madanipour

Ali Madanipour is Professor of Urban Design at the School of Architecture, Planning and Landscape, University of Newcastle upon Tyne, where he is also a founding member of the Global Urban Research Unit, an interdisciplinary research centre. He has studied, practised and taught architecture, urban design and planning, winning design awards, conducting research on design, development and management of cities, and publishing widely. His latest book *Public and Private Spaces of the City* was published by Routledge in 2003.

Acknowledgments

Design

Unit
www.unit-design.co.uk

Print

Printed by Ernest Bond Printing Ltd to ISO 14001 environmental standards on Revive Uncoated paper (80 per cent recycled content).

