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Place value and the ladder of place quality

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Keynote session 3: How to manage quality

Lots of claims are made about the power of place. Having long been fascinated by how, where and under what circumstances the design of places ‘adds value’, we recently embarked on a new Place Alliance project to bring together as much robust empirical evidence as possible in order to better understand the relationship. There turned out to be a lot more than I imagined, now brought together at www.place-value-wiki.net.

What is place value?

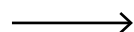
Concepts of value have been most comprehensively developed in the field of economics, but economic value is only one way of defining and measuring value. An entirely different way of thinking about value is the degree to which an intervention – in this case in the built environment – impacts, either positively or negatively, on different public policy goals. This notion, which might be called ‘Place value’, reflects the idea that a complex but inter-related basket of benefits (or harms) accompanies any development. Ultimately these flow to those with a stake in the place; that is the local residents, investors and developers, workers, business owners, public authorities, and so forth.

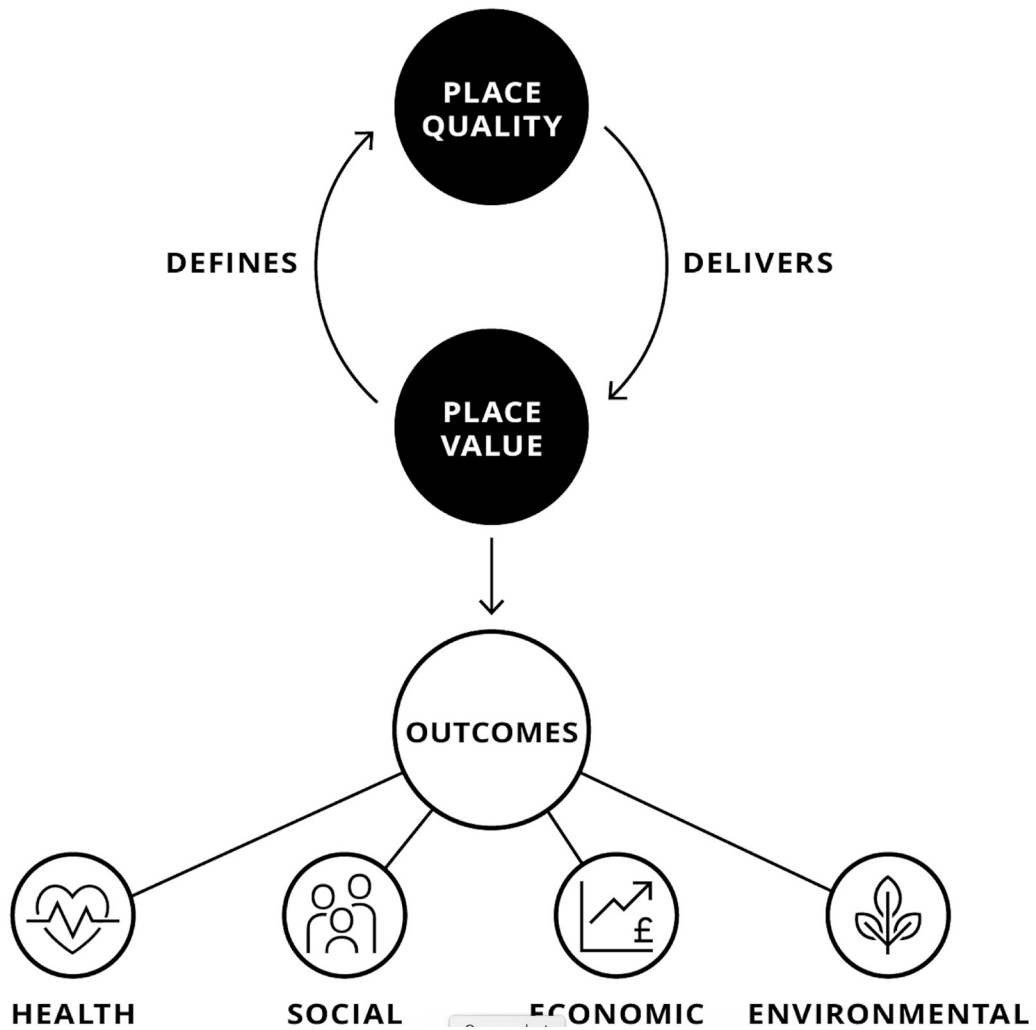
My own work gathered evidence together under four ‘big ticket’ policy arenas that governments (national and local) everywhere are typically concerned with: health, society, the economy and environment. These are the areas on which elections are won and lost as they impact so directly on the daily lives of citizens. Testing the extent to which these arenas are influenced by the quality of the local built environment is therefore a legitimate means to assess whether it is worth worrying about how places are designed. In other words, how can the qualities of place deliver value as regards enhanced health outcomes, greater societal well-being, economic success and environmental sustainability.

How can we define place quality?

There are many different views about what is or is not a high quality built environment. Cutting through this complexity, one way of answering the question – what is meant by place quality? – might simply be that a high quality place is one which returns the greatest value to its users. This means sustaining them in healthy, socially rich and economically productive lifestyles that touch lightly on the environment.

In this way place quality and place value are inherently inter-linked because, as the evidence in www.place-value-wiki.net demonstrates: first, high quality places deliver greater value to their users in all these ways, and, second, there is a virtuous loop, with the degree to which environments deliver value (and facilitate key public policy goals) determining the qualities that we should seek in order to shape higher quality places in the future. Fortunately, the sorts of qualities that deliver value are neither complex to understand nor deliver. That said, we consistently fail to do so.

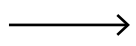




Place quality and place value are inter-linked in a virtuous loop in which quality dictates value and value defines quality

The technical bit

Systematic reviews are a standard approach used in the sciences, in particular in the medical sciences, to establish what is known and what is not known about a particular topic. Typically, systematic reviews begin with the identification of a key question or issue in order to focus the search. In this case the review focused on a broad range of place value dimensions as represented in the box.



<p>Health</p> <p>A1. Greenness and physical health A2. Greenness and psychological well-being A3. Place quality and mental health A4. Walkability, active travel and related health A5. Place quality and physical health</p> <p>Society</p> <p>B1. Street layout and crime B2. Environmental design and crime B3. Street design and safety from collisions B4. Place quality and liveability B5. Urban vitality B6. Inclusivity and social capital B7. Enabling environments B8. Place quality, play and learning</p> <p>Economy</p> <p>C1. Property values and green space C2. Residential property values and urban design C3. Commercial property values and urban design C4. Streets, public realm and economic value C5. Economic development and regeneration C6. Public spending (and savings)</p> <p>Environment</p> <p>D1. Urban form, density and energy use D2. Transport, technology and carbon reduction D3. Thermal comfort, cooling and pollution D4. Ecology and resilience</p>

Place value dimensions covered in the review

Across these dimensions the systematic review revealed 13,700 records for possible inclusion in the review. From this long list, a series of inclusion and exclusion criteria were applied to narrow the selection including omitting research studies that focused exclusively on the construction or internal spaces of buildings and those with only strategic (city-wide or regional) relevance. In other words, there was a scale limitation to the studies that were included, which needed to be specifically ‘urban’ and ‘place’ focused.

This process narrowed the final selection down to 271 studies that were considered worthy of inclusion in the review; approximately 2% of the records originally identified. These were classified against the four related public policy dimensions and the various sub-categories and their key findings were extracted. As a wiki, the evidence base has continued to grow and the site now contains well over 300 empirical research studies.

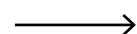
Whilst the evidence reviewed was truly international in its origins, the search itself was restricted to English language articles. Of the 271 studies, 38% derived from the USA and 34% from the UK. Other significant contributors to the evidence base included other European countries (notably the Netherlands), Australia, China, South Korea and Canada. A more extensive discussion of this research was recently published in the *Journal of Urban Design*¹.

What value does place quality release?

On health outcomes

There is a large and rapidly growing body of evidence on the importance of place quality for health outcomes. Together the health evidence is overwhelming, demonstrating that the way places are designed can

¹ Carmona M (2019) Place Value: Place quality and its impact on health, social, economic and environmental outcomes, *Journal of Urban Design*, 24(1): 1-48



play a major role in delivering place value, care of the wide range of positive health benefits that can be released. Foremost amongst these are:

1. **Better physical health:** lower obesity, less type two diabetes, lower blood pressure, reduced heart disease, lower rates of asthma and respiratory disease, faster recovery from illness, and from fatigue.
2. **Better mental health:** less stress and more psychological restfulness, reduced depression, anxiety and anger, reduced psychosis.
3. **Better general fitness:** increased walking (for both travel and recreation), increased exercise, sport and recreation, and more cycling.
4. **Greater daily comfort:** reduced air pollution, heat stress, traffic noise, and poor sanitation and reduced exposure of lower socio-economic groups to the effects of debilitating neighbourhoods.
5. **Enhanced quality of life:** increased sense of emotional well-being and satisfaction, greater happiness, reduced fear and higher energy levels.

On social outcomes

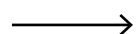
The research relating to social outcomes was more diverse than that for health. The social evidence demonstrated that the way places are shaped has a major impact on delivering aspects of place value through social benefits that range from lower fearfulness to greater happiness. The manner in which places are designed has the potential to deliver:

1. **Fewer accidents:** reduced collisions and casualties on the road, and reduced fearfulness of accidents.
2. **Social integration:** reduced stratification and greater integration of social groups and larger social networks locally, with stronger social support.
3. **Lower rates of crime:** reduced burglary from homes, lower street crime, less fear of crime and stronger perceptions of safety.
4. **Better educational outcomes:** increased child independence and positive play behaviours, and enhanced learning and educational achievement.
5. **Enhanced street level vitality and sociability:** a richer public life, enhanced social interaction and greater longevity of use in urban streets and spaces.
6. **Stronger civic pride:** an increased sense of pride, local morale, social resilience, and community life, and enhanced social capital (social and political engagement) generally.
7. **Greater inclusiveness:** enhanced use of the city by marginalised and socioeconomically disadvantaged groups, and greater female empowerment and acceptance of cultural and social difference.
8. **More enabling environments:** in older age and for those with disabilities.

On economic outcomes

Research in this rapidly growing field of study suggests strong private as well as public economic benefits from place quality, through a rich vein of evidence that is again overwhelming. In this area some caution is required when interpreting the evidence as certain outcomes – for example rising property values – may not always be desirable. Collectively the evidence suggests that how places are shaped can deliver:

1. **Property uplift in the residential sector:** influenced by access to views, trees, and open space, lower pollution, mixed use (up to a point and as long as homes are not too close to retail), walkability, neighbourhood character, access to public transport (if not too close to homes), external appearance, public



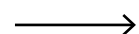
realm quality, connectivity and vitality.

2. **Property uplift in the retail sector and reduced vacancy:** influenced by urban greenery, walkability, public realm quality, external appearance, street connectivity, and frontage continuity; all leading to increased retail viability.
3. **Property uplift in the office sector, and reduced vacancy and depreciation:** influenced by walkability, external appearance, design innovation and street connectivity.
4. **More viable investments and extended regeneration benefits:** by making investment more attractive, enhancing competitiveness through differentiation and strengthening community support for development.
5. **Reduced public expenditure:** through reduced capital and maintenance costs for roads infrastructure, reduced public realm maintenance and management (including security) costs, support for the historic built environment and urban regeneration, lower crime and policing costs, and reduced health and social care expenditure (thanks to reduced levels of medication, prescriptions and hospitalisation).
6. **Higher local tax take:** through attracting new development; and generating a greater willingness to pay for place services from businesses and communities alike.
7. **Lower costs of living:** through lower car use and public transport costs (more viable / cost effective public transport), and lower costs for health insurance, and reduced energy consumption and smaller carbon footprints (from transport, infrastructure and buildings).
8. **Higher productivity:** more efficient property and workers, easier recruitment of employees, the enabling of higher density development and more efficient land use, greater adaptability of buildings and spaces over time, and avoiding the unnecessary costs associated with bad design.

On environmental outcomes

The final grouping of evidence was also the thinnest as regards the quantity of robust evidence uncovered. However, a remarkable consistency in what the evidence revealed helped to overcome its relative paucity, with many of the findings strongly reinforcing those associated with the other dimensions. Collectively the research pointed to multiple potential environmental benefits:

1. **Reduced energy use and associated carbon (greenhouse gas) emissions:** through the creation of urban forms that need less heating and cooling and require less private (vehicle) travel.
2. **Adaptive reuse:** buildings, spaces and urban infrastructure that is adaptable over time and more able to support the changing needs of society within the existing built fabric (and its embodied energy).
3. **A viable local exchange network:** with local facilities, amenities and employment opportunities reducing the need to travel further afield and supporting local economic and social resilience.
4. **Reduced heat stress and enhanced thermal comfort:** particularly for pedestrians through greater greening and shading in urban areas.
5. **Reduced waste:** through lower demand for construction materials and a reduction in construction waste.
6. **Reduced pollution:** including atmospheric pollution and noise pollution (with knockon health and wellbeing benefits).
7. **Greater resilience:** through accommodating and managing hydrological cycles and working with (rather than against) natural phenomena.



8. Ecological diversity: Through supporting a greater diversity of species and a greener built environment.

A basic necessity of life

In recent years, the evidence base linking better place design with value (broadly defined) has grown strongly. The very large majority of evidence now points in the same broad direction, that better place quality adds value economically, socially and as regards health and environmental outcomes. The impacts of place are profound, contribute benefits to society over short, medium and long-term time horizons, and reverberate throughout the lives of citizens across all socio-economic strata and globally.



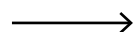
Place Quality delivers Place value

Whilst the different types of value may not be directly comparable (e.g. mental well-being versus return on a property investment), may flow differentially to different parties and over different time horizons (e.g. short-term profit to developers versus long-term health benefits to society), and perhaps not to those who paid for them at all (e.g. the impact of street trees may not be truly felt until they are fully grown); all are important and can be considered together as a varied and ever changing basket of place value.

In a context where the governance of design (and place) is increasingly a shared endeavour encompassing critical inputs from public, private, third and community sectors, such a shared perspective on the importance of place quality is all the more important and (where it exists) powerful in its impact. Place quality is not a mysterious and luxurious aspiration only to be considered when things are good or only for the wealthy. Instead, as the evidence gathered in www.place-value-wiki.net shows, it is a basic necessity of urban life with profound and far-reaching impacts on the lives of citizens today and tomorrow. It is so important to our basic well-being that it should be the expectation of all.

The ladder of place quality

As has been argued, the quality of place has profound impacts on the lives of people, as regards their health,



social well-being, economic circumstances and the environment within which they live. The research underpinning those assertions² went on to uncover the truth about the qualities of the built environment that are good for us, and those which are not, and these are presented in the Place Alliance report: *Place Value & the Ladder of Place Quality*.

As the title suggests, it is possible to envisage different qualities of place as sitting on a ladder. The ladder climbs from those place qualities that **should be avoided** at all costs when designing new development (because of their very likely negative health, social, economic and environmental impacts); to those about which the evidence is still inconclusive (and where we should be careful not to be too prescriptive in policy and guidance). Next come place qualities that are strongly associated with positive outcomes of all types (and which should be the aspiration of built environment policy and development-related decisionmaking). Finally we have a limited number of qualities that are fundamental and which **should be required** in new development as a means of maximising place value through good design.



The ladder of place quality

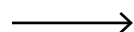
Climbing the ladder

Looking across the 271 studies, many were focussed on particular narrow types of value and outcomes. Collectively, however, the results of the studies can be aggregated in order to determine which associations between dimensions of place value and the different qualities of place are stronger, weaker, negative, or simply still uncertain given the available evidence. So let's climb the ladder.

Step one: avoid

The evidence reveals a **VERY strong negative** association between some qualities of the built environment and place derived value of all types. Here the strength of the evidence is extremely strong suggesting that

2 Carmona M (2019) Place Value: Place quality and its impact on health, social, economic and environmental outcomes, *Journal of Urban Design*, 24(1): 1-48



these are qualities to be 'avoided' at all costs when shaping the built environment. Eight of these negative qualities were identified:

- Car dependent and extensive forms of suburbanisation
- Relentlessly hard urban space (absence of local green space)
- Too much very local permeability (connectivity) in the pedestrian path network (e.g. unsurveilled back alleys and routes)
- The presence of rear parking courts and other poorly overlooked or segregated areas
- Poor maintenance / dilapidation (including of green spaces)
- A sense of overcrowding in residential buildings and estates
- Presence, in close proximity to homes, of too many unhealthy food options
- Presence of roads with higher traffic loads and speeds, wider carriage-way widths, that are elevated, or which otherwise cause severance in the local built environment.

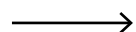


Avoid rear parking courts

These are largely tangible and measurable qualities and are therefore capable of direct control (in a preventative manner) through formal tools of design governance such as through planning policy, zoning, street adoption powers, or the use of design codes.

Step two: beware

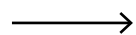
For some qualities of place the research evidence was conflicting or simply not yet definitive enough to come to a firm view about the impact. There are eight issues in this category:



- Particular architectural styles (the evidence does not clearly show the superiority of any one architectural style over others)
- Higher versus lower densities of development (there is conflicting evidence linking both higher- and lower-density living to health outcomes, sociability and perceptions of crime and safety)
- Extreme densities (there is conflicting evidence relating extreme densities to carbon reduction, social welfare and ecological richness)
- High-rise living (the evidence is unclear regarding the social impact of living in highrise buildings, although it does seem unsuitable for families with children)
- Street length and pedestrian connectivity (the health and crime evidence diverges on the relative benefits and drawbacks of longer versus shorter streets and on how connected street networks need to be)
- Cul-de-sacs (there is conflicting evidence on the impact of using cul-de-sacs on crime and safety, property value, sociability and children's play)
- Separating vehicle and pedestrian routes through urban areas (the evidence is weak and conflicting regarding pedestrian safety outcomes)
- Use of shared spaces (there is conflicting evidence relating to use of shared spaces – spaces shared by vehicles and pedestrians – to levels of both actual and perceived safety)
- Proximity of retail to residential properties (there are divergences within the economic evidence based on the relative size and impact of negative externalities related to living in extreme proximity to retail).



Beware shared spaces

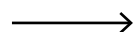


On all these qualities, more research is required, and care should be taken when seeking, without very good reason, to be prescriptive on such issues in policy or guidance.

Step three: aspire

There is a **strong positive** association between place-derived value of all types and fifteen further qualities of place. Whilst the evidence on each of these is powerful, it is not as extensive and definitive as the next set of qualities. Partly this seems to be because of the more intangible nature of these qualities, which makes researching them more challenging. These qualities include:

- Visual permeability (being able to see into and through a space)
- Sense of place (distinctive sense of local character)
- Pedestrian scale (design of streets and buildings are clearly oriented to the scale of the pedestrian)
- Façade continuity (façades form a continuous and coherent street wall)
- Natural surveillance (the creation of space that is well overlooked by surrounding buildings)
- Presence of street-level activity
- Good street lighting (where streets are well lit to improve street safety, but not overilluminated, thus creating light pollution)
- A denser street network (avoiding large urban blocks in favour of smaller ones)
- Low vehicular traffic speeds
- Low neighbourhood noise
- Presence of public spaces that are attractive, welcoming, comfortable and adaptable
- A positive, sociable threshold between public and private spaces (such as front gardens, porches and external seating areas)
- Retention and integration of built heritage into new development
- Natural features and a diverse ecosystem integrated throughout the built environment
- Architectural quality and beauty in the built environment





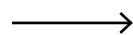
Aspire to create attractive, welcoming, comfortable and adaptable public spaces

Whilst some of these, for example façade continuity or traffic speeds are relatively easily specified, most need more careful interpretation in the light of local circumstances and this will lend itself to greater control through the informal tools of design governance, for example through design review, or the preparation of design guidance. They are therefore likely to be 'aspirational' rather than required qualities.

Step four: require

Finally, there is a **VERY strong positive** association between place derived value of all types and six final key qualities:

- Greenness in the built environment (notably the presence of trees and grass, water, and high-quality open space)
- A mix of uses (diversity of land uses within a neighbourhood)
- Low levels of vehicular traffic
- Pedestrian- and bicycle-friendly design (including well-connected, safe pedestrian paths and bicycle routes passing through a high- quality local public realm)
- Use of more compact patterns of development (that are well connected, less sprawling and not fragmented from other urban areas)
- Convenient connection to a public transport network





Require a mix of uses

These can be seen as first order highly desirable qualities that also happen to be very tangible and objective and therefore measurable. By implication, if the will is there, they can be readily articulated and specified by policymakers through the same formal tools of design governance as the qualities to be avoided. The high standard of proof required to determine that these factors 'are good for us' means that there are relatively few of them. As such they can and should be specified in a manner that (suitably adapted to local circumstances) 'requires' their delivery.

Final reflections

Given the strength of the evidence, policymakers, developers and built environment professionals would be remiss if they failed to make the pursuit of a high quality built environment a top priority. They should take very seriously the sorts of qualities that are systematically shown to add value: economically, socially, environmentally and as regards health outcomes.

Fortunately, this is a field of knowledge about which we know a good deal, including the essentials of what makes a good place, and how the way we shape places can add value. None of the constituent qualities of successful places are particularly unique, innovative, or remarkable in any way, yet day to day and place to place they play a role in successfully influencing positive health, social, economic and environmental outcomes. They are easily achieved if we have the will to do so.

Ultimately we can use this knowledge to advance the case for quality when policy, project or investment decisions that affect the built environment are being made. Alternatively we can ignore it and suffer the consequences. It is that simple!