Townscape assessment: the development of a practical tool for monitoring and assessing visual quality in the built environment

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Abstract. *'Townscape' as an approach to understanding one aspect of quality in the built environment has had mixed fortunes over the last few decades. Nonetheless, it remains a useful category within which the question of how places work at an aesthetic level can be considered. The problem has been, however, the absence of a comprehensive and relatively objective system for recording and representing the findings from townscape evaluation in the field. This paper presents the evolution of one such approach, and illustrates how it has been applied as part of a more general impact assessment research project to determine the effectiveness of the Townscape Heritage Initiative (THI) regeneration programme in the UK. The paper concludes with a discussion of the utility of the method for future built environment monitoring and evaluation programmes.*

Key Words: townscape, urban design, urban quality, evaluation methods

As a focus, 'townscape' has dominated the more popular literature on urban design in the UK since the end of the Second World War. The term's specific use seems to date to Hissey (1889, p. 263) who recorded 'some of the quaint townscapes (to invent another word) of our romantic, un-spoilt English towns'. Its near equivalent outside the UK is 'urban landscape', a term that occurs frequently in this journal, as does the term 'townscape' itself, which is used widely not only by architects but also by British geographers (for example, Smailes, 1955).

In the immediate post-war period townscape was seen by many architects as a concept that re-emphasized character, tradition and differentiation in distinction to the imported and imposed uniformity of the Modern Movement (De Wolfe, 1949). Use and development of the term shared some of the implications (and confusions) of the seventeenth-century coining of the term 'sharawadgi' as applied to the studied beauty of irregularity (Pan, 1995).

Although always criticized as a sub-theoretical set of tools for partial analysis and prescription (as well as the basis of strongly felt and elegantly argued critiques of change in British towns – a prime example being Ian Nairn's *London*, 1966), the townscape approach to urban analysis dominated planning thought for a considerable period. It remains a key consideration, especially at the interface between professional and public views of existing and future environments,

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particularly in the UK where it has had a significant history in urban design, planning and conservation. Its development will always be associated with the name, writing and especially the illustrations of Gordon Cullen (Gosling, 1996; Whistler and Reed, 1994).

The subject remains central to the processes of conservation, development and urban design (Tugnutt and Robertson, 1987), although interpretations differ considerably. In the early 1990s, to the English Historic Towns Forum (1992) it appeared to consist of quality in building detail, whilst in an American survey exploring popular visual preferences through photographs (A. Nellesen Assoc., 1993) it was the quality of spaces which was the focus. More recent literature (Shipley *et al*., 2004) has suggested that townscape can be used in conjunction with other approaches for assessing change in the built environment, relating this to criteria of evaluation and performance. That is, townscape is becoming again the focus of interest in specific fields of urban conservation and design as a potential means for measuring change brought about by regeneration programmes such as those funded by the Heritage Lottery Fund (for example, the Townscape Heritage Initiative, THI). It is being used as a tool for understanding how investment in the physical fabric of places at the urban scale can affect their visual performance.

Although many researchers have explored geometric analysis, photographic recognition and comparison, and spatial analysis techniques as surrogates for the comparative analysis of townscapes (see, for instance, Cooper, 2005, on the application of fractal analysis in streetscape evaluation), no single technique is either comprehensive or generally accepted. The search has been for a field technique which records and / or assesses an urban or street view, and translates this into a manageable set of data which can be mapped and compared with other, similarly achieved, data. The purpose of this paper is to describe and explain the development of such a technique over a 25-year period, and to provide some recommendations for its application in urban design and urban morphology. The paper describes a number of projects in which this technique has been evolved, and concludes with a detailed account of its current incarnation in its application to a longitudinal evaluation of the THI programme.

Identifying environmental opportunities in Tower Hamlets, London, 1978

The method employed in the THI work relies on detailed field observation and recording of the quality of townscape elements on a prepared and piloted pro forma and the use of summary scores for each view (not view-point) for the construction of score sheets and maps which suggests the patterns and complexity of townscape quality within a given area. The use of a standardized pro forma permits comparison both within, and between areas, and also allows comparison of individual, or groups of, variables. The method was initially developed by Goodey (Goodey and Ashford, 1978) in response to a request to identify environmental opportunities in the London Borough of Tower Hamlets for the Tower Hamlets Environment Trust.

The brief focused on the emerging concept of 'opportunity' in the area adjacent to the City of London and the recognition, as in the Department of the Environment's *Making towns better* studies of 1973 (especially that for Rotherham) (Department of the Environment, 1973), that visual quality was a key component of urban improvement. Elements drawn from both the 'townscape analysis' and 'environmental quality measurement' in the Rotherham reports were influential in shaping the methods described below.

Initial discussion about both the factors which might comprise a townscape assessment and the methods, including scoring, that were to be used took place at a time when Alice Coleman (1984, 1986) was developing a method for the assessment of built environmental quality in nearby areas. Her work, when published, proved both

provocative (Campbell, 1985) and influential in decisions on public housing renovation. It was particularly concerned with the presence or absence of quality or condition markers, rather than the overall aesthetic quality of townscapes or streetscapes.

From a range of existing analyses and studies we determined the following initial set of variables as describing townscape quality:

General impression:
character of buildings
maintenance of buildings
grouping of buildings

Detailed observation:
character of boundaries
maintenance of boundaries
street furniture
street amenities
street maintenance
planting:
  shrubs and flowers
  trees
  lawns

With the addition of perceived land-use diversity, a pro forma allowing scores for each variable from 0 (low) to 5 (high) was used in a sample of road junction views in the largely residential areas of Bromley-by-Bow, east London. Findings from this pilot survey were compared with the results of an interview survey with a sample of the area's residents which sought their evaluation of the variables selected.

To further refine the method, especially with regard to observation points, visual envelopes and the weighting of variables, a second pilot survey was undertaken in Middleton Cheney, a village of then some 4000 inhabitants with a wide range of residential settings, located in south Northamptonshire. As the residence of one of this paper's authors, this offered many advantages with regard to view definition and knowledge of spatial coverage. In this revision, traffic and pedestrian environments received increased emphasis, as did skyline features, and evidence of historic or community concerns. As a result of both pilot surveys we were able to advise on the density of observation points, the form of views being assessed, the locations to which scores might be attributed, and the firmer definition and scoring of all variables employed. A six-point scale was suggested, although not all scores would be available for all variables. The report outlines the use of the method as one of a suite of techniques for assessing local environmental quality, several of which would involve community input or comment.

The final set of variables proposed for future use in the Tower Hamlets context was:

1. **First impression**
2. **Evident functional diversity**
3. **Built form**
   - character
   - quality
   - grouping
   - maintenance
   - personalization
4. **Boundary**
   - quality
   - maintenance
5. **Green space**
   - percentage of view public or private?
   - quality
   - maintenance
   - waste land
6. **Streets**
   - traffic suitability
   - surface quality
7. **Pedestrian environment**
   - traffic suitability
   - surface quality
   - vandalism
   - graphics/advertising
8. **Skyline/'wirescape'**
9. **Nostalgic reference**
10. **Evident community concern**
11. **Presence of selected features**
    - children's play areas
    - public eating facilities
    - public toilets
    - recreational water space
12. **Work in progress**

The report concluded that 'what we have been asked to consider is a technique which 'formalises subjective observations over a limited ... and biased ... set of variables' '. If the scores generated are treated as sacrosanct or in isolation, then there is little chance that any changes that are sensitive to either the community or the environment will be affected. Scores offer a starting point, the requested 'base line', from which people who care about a place called Tower Hamlets (or parts thereof) can begin to probe further and ask some questions that have not previously been raised.

The report's findings and implications were considered in detail by the Trust. Any borough-wide survey by an agency intent on attracting investment and making its mark in the area was seen as too heavy an investment in terms of time and money.

It was the presumed high cost of surveying that prevented the Tower Hamlets report being developed further in consultancy studies. Nonetheless, the techniques found a place in a number of graduate student research studies and, although the labour in their studies might be seen as voluntary, were not reported as particularly burdensome. Several theses were able to employ, refine and appraise the utility of the methods. Issues of initial definition, variables to be used, density of observations, weighting and application of results were the major themes for discussion.

Coventry environmental quality survey, 1989

As a key element in the development of Coventry's Unitary Development Plan, the First Interpreters planning consultancy, based in that city, was commissioned to undertake an environmental quality survey of the city's area. The report on work undertaken in early Spring 1989 details the process and results (First Interpreters, 1989).

The survey called for a particular emphasis on green space within the urban context, and was to represent the initial stage of an environmental quality enquiry which would then be pursued with communities at the local level. The framing of the work implied a high value attached to landscape-dominated design, 'arcadian' views and English landscape tastes as, for example, maintained by both the first (and second) editions of the 'Essex Design Guide' (Essex Planning Officers' Association, 1997), although possible differences amongst ethnic communities were recognized.

The pro forma for observations that emerged from a pilot study on Coventry's fringe, resulted in assessment of the following variables on a seven-point scale:

1. Built form
- human scale
- buildings design detail
- functional variety
- permeability

2. Green space
- presence of
- variety/species/forms
- seasonal vision
- maintenance

3. Public space
- design quality
- edge feature quality
- cleanliness
- maintenance

4. Water
- presence of
- maintenance

5. Explicit heritage

6. Street furniture design

7. Skyline quality

Observations (unscored)
- presence/absence of enclosure
- new build
- traffic
- parking issues
- graffiti
- neighbouring wildlife, etc.

With the intention of providing a map base for the whole city area, a regular grid of 1 km squares within the city boundary was employed, with road junctions or open view-points closest to the grid intersections being used for four cardinal observations. This basic grid was intensified in the more central,

built-up, areas and was supplemented by additional observations where areas of contrast were hidden from initial view. In addition, special attention was paid to a nominated range of post-war residential schemes.

The whole survey, involving 249 sites and just less than 1000 survey forms, was undertaken by one surveyor, and photographs were taken of each view observed. This was achieved in 8 working days in March 1989, during daylight hours and with the benefit of fine weather throughout.

A photographic follow up in better light revealed the continuing process of modest environmental change which endorses each view as dynamic, but seldom altering radically over a year. The presence of one surveyor aided consistency in the observation, interpretation, and supplementary notes on areas which formed part of the final report. View scores were mapped, both to provide an overall environmental quality map of the city and specifically to draw on the green space variables. The results were used as a basis for further enquiry and discussion in the development of Coventry's Unitary Development Plan.

Consequent upon the Coventry work, a further study was undertaken in the Ancoats area of Manchester by First Interpreters. This took the method back to an area not dissimilar to parts of Tower Hamlets – inner city industrial and residential with a few, fading, buildings of note. Two surveyors were used in a study drawing on observations at all intersections, providing a high-density coverage.

After a pilot survey, the variables selected for Ancoats marked one significant change from those used in previous studies. The issue of safety brought into perspective the differences between the sexes in townscape evaluation and joint observations by observers of both sexes were employed at each point. Issues of personal safety were expanded in the variables to be assessed. This study was not published, but fed into the local regeneration process.

1990-1998

In October 1989 a further application was employed in an environmental audit of Broseley, an historic industrial town adjacent to Ironbridge in Shropshire. The survey was at a very detailed scale, with observations at all road and path intersections, and of between-building views. It yielded maps of overall townscape quality, and especially of visible green space. The data and maps were used to guide detailed analysis of public space quality (First Interpreters, 1990).

Summarizing the qualities implicit in the survey, the authors noted:

> ... we can characterise a *good view* as one in which there are no out-of-scale buildings, there is attention to design detail, where there are several uses in view, and where there are alleys and side roads *which* suggest a variety of routes through the scene. In Britain we expect greenery in our towns and that a variety of species ensure all year character; we also expect planting to be well, or appropriately, maintained. Good public spaces have been designed or directed to achieve public functions, they have attractive edges and are clean and well managed. Water adds movement and light to the scene. Clear evidence of history is an attraction which reminds visitors of their roots. Street furniture is always in evidence and can be an asset. Long-distance and skyline views help place a town in its setting. A *bad view* is easy to deduce from the above. Single use areas of poorly detailed buildings with little planting, arid standard street furniture, the whole poorly maintained, represent the town view which gains little attention or interest.

There followed a fairly fallow period in the development of the approach in the public arena, although again student work reflected on the problems and opportunities. It was the presumed cost of field survey which held the method back, although complex combinations of desk, community and field survey were employed to reach related ends, as in the 1989 environmental assessment of the residential areas of Harrow by Wootton Jeffreys (Munro and Lane, 1990). Our experience in this work

since then has reinforced the conclusion that systematic townscape evaluation using our methods does have serious resource implications if applied unthinkingly. However, assessments using the methods being described here can be made reasonably cheaply and efficiently to evaluate specific and clearly defined areas, or even single views, in which change is occurring or is about to occur; or where there is a need to record the visual status quo for future reference – such as in conservation areas.

A considered view of the methodology, developing and latent, over the 20-year period returns to four key factors. The first two are identified by Findlay, Rogerson and Morris (1988, p. 96) in their discussion of quality of life indicators:

> Two main technical problems are faced by researchers in the evaluation of quality of life. The first relates to the identification of those elements or dimensions of an environment which are involved in people's assessment of its quality of life. The second is to decide how much importance to attach to each of the elements when they are aggregated to form an overall evaluation of quality of life.

Problems also arise in the case of environmental and townscape quality. First, what are the variables to be considered? And second, how are they to be weighted in the production of a composite indicator? The third key issue in the method outlined above is the density and location of observations and score allocation, a matter which was seemingly resolved in the Coventry study. The fourth issue is the more practical one of how the data and their presentation are to be used in the urban environmental management process. Given that a survey can reveal contour zones of related quality, and that maps can suggest both high and low points of visual environmental or townscape quality, there is the question of how these data can be used to better understand the processes involved in environmental change. The next study described below begins to address this question.

Townscape evaluation of the impact of the Jubilee Line Extension (JLE) on the London Underground, 1999-2003

The London Transport study provided a particularly useful focus for addressing this last issue. By monitoring the areas surrounding the Jubilee Line Extension station sites both before and after opening, a measure of townscape quality change could be attempted (see Willis, 1997 for an account of the background to the JLE). Indeed, this was essentially the brief for this work, which formed a part of a large-scale evaluation of the impact of the JLE economically, socially, environmentally and in terms of other issues (Reeve and Goodey, 1999).

The JLE townscape evaluation took the form of a detailed survey of seven of the eleven new station sites and their immediate contexts in 1999 prior to opening, and 2 years later once operational. The assumption was that the impact on the townscape would be both in terms of built fabric (quality of buildings, streetscapes, etc.) and the levels of activity or business around each station. The pro forma developed for this project attempted, therefore, to record both 'static' and 'dynamic' elements in the visual scene, and to assess them qualitatively before and after the JLE was operational. The method developed earlier thinking regarding evaluation of townscape by considering the scale of, or boundary between, elements or dimensions in the visual scene. We considered that the scene could be understood at four levels of resolution: pedestrian (local); street long (neighbourhood); elevated views (districts and above); and skyline views (metropolitan and above). For the purposes of the JLE evaluation, levels one and two were the primary focus, although in North Greenwich and Canary Wharf townscape can be experienced at an undoubtedly elevated level. Our method was chiefly concerned, however, with the public and pedestrian view point rather than that available to those with access to high buildings, for example.

We also sketched out 'expanded' townscape criteria to think through the

qualities that might both be observed and might impinge on the experience of the place and thus affect perception – although made up of a number of different visual clues. These were organized into three categories:

General affective quality
- ambience
- distinctiveness
- legibility
- human scale
- personal safety
- cleanliness
- vitality
- functional variety

Detailed morphological element
- architectural quality
- grouping/blocks
- street pattern
- 'floorscape'
- street furniture
- edge features
- planting
- trees
- signage
- visual stops
- barriers
- viewing places
- changes in scale
- containment
- landmarks

Dominant content of area
- listed buildings
- conservation area
- historical associations
- dominant buildings
- dominant building height
- dominant building function

The criteria for assessment are complex, in so far as they require knowledge of site conditions beyond the immediately apparent (such as conservation area status). However, this complexity seemed to be justified if we were to build up a clear understanding of the context within which visual change was occurring, and the relative status or significance of the views being scored. For a dedicated research project such as the JLE work, the time and other resources involved in building up this complete picture could be argued for in relation to the overall budget for the JLE itself and on the basis of the permanence and significance of alterations to the streetscapes around the new stations. However, the criteria were simplified after the pilot survey, so that greater emphasis was given to those qualities that could be observed in the field rather than those requiring additional research. In addition, only the morphological elements were scored – on a six-point scale – and the others simply noted. We also developed a set of guidance notes for scoring views, so that the field worker could have confidence in terms of what counted as having a high score and the opposite. For example, for the criterion of cleanliness this guidance was given:

> *a.Cleanliness:* evidence of high level of cleansing of all areas of public space – litter, casual obstructions such as road works in good order, graffiti, redundant signs, posters, etc.
> *High:* a clean and appropriately 'tidy' environment, bearing in mind this is the most frequent concern of street users.
> *Low:* long-standing litter, redundant public works debris, torn posters, overflowing litter bins, dumped black bags, etc.

The implication here, which gradually emerged as we thought through the appraisal method, is that what we were assessing was performance against an explicit standard. This is critical to understanding how the method has evolved, and how it differs from previous instances of townscape evaluation. More will be said on this later in the paper.

In all, over 1000 views were scored both before and after the opening of the JLE, building up a clear picture of what changes had occurred and their significance in townscape terms. Unfortunately, a proposed further follow-up 5 years after opening will not be conducted, for funding reasons, although several types of townscape impact take several years to become evident.

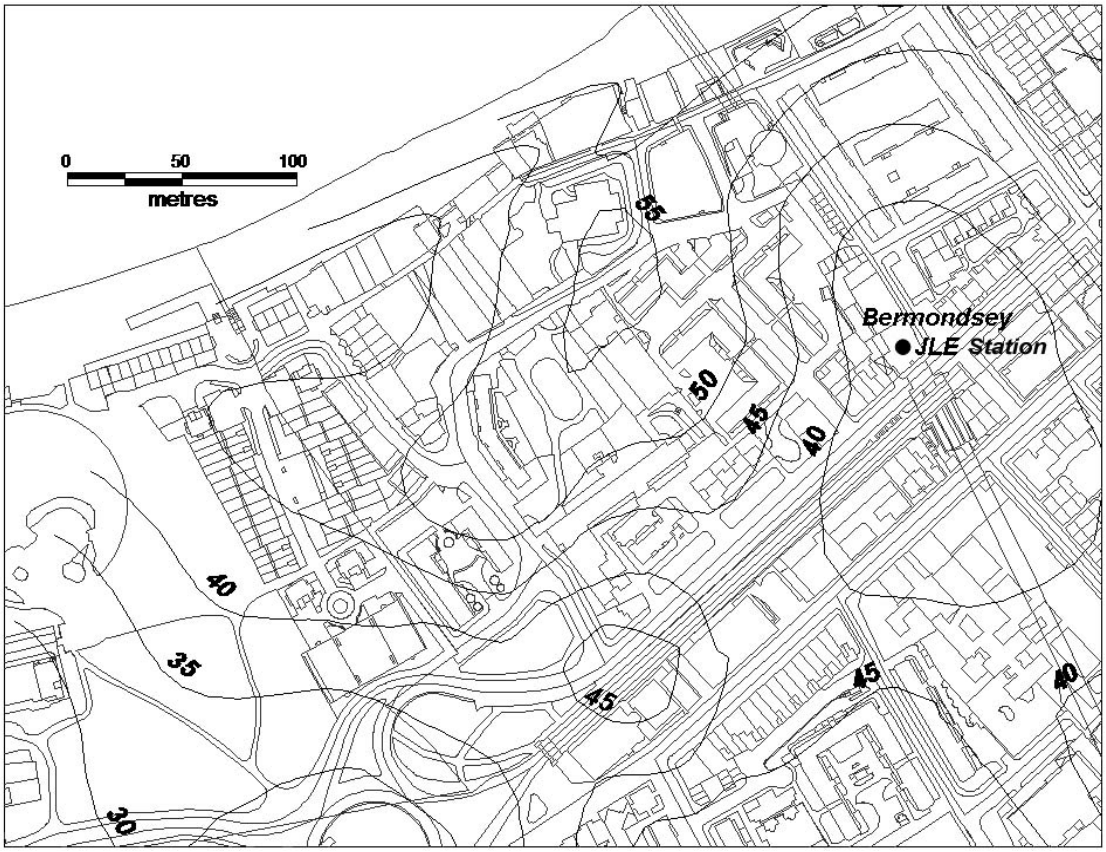

Figure 1. Map of the immediate environs of Bermondsey Jubilee Line Extension Station, London, showing isolines. The higher the number on each isoline, the higher the townscape score and hence quality.

The main finding, in terms of method, is that it provides a reasonably robust and systematic technique for capturing change with respect to clearly specified elements in the visual scene. Moreover, saturating an area with views for scoring allows a potentially very detailed picture of change to be built up over time, in a way that permits this to be graphically presented through isoline maps, score cards and other means. Figure 1 provides an example of how isolines were used in this study to represent areas of different townscape quality.

The method is also adaptable for the needs of particular places. For instance, different criteria can be used for determining which views to score, depending, for example, on the presence of new work, or of particularly sensitive townscapes. Likewise, the elements scored can be determined on the basis of the type of change being monitored and evaluated. In the case of the JLE research, the elements considered covered a wide range of visual issues because the research was concerned with the overall impact on the immediate and local vicinities of the station sites. In the case of our work for the Heritage Lottery Fund (HLF), (to be considered next), the focus was on conservation quality and the impact of investment and regeneration, and the method was adapted to take account of this.

The Heritage Lottery Fund, 1989 and beyond

The Townscape Heritage Initiative (THI) was established by the Heritage Lottery Fund in 1998. The THI Evaluation is a 10-year project designed not just to monitor the results of THI schemes being carried out across the United Kingdom, but more importantly to

measure their effectiveness. The rationale, particularly from a townscape perspective, is that regeneration projects at the streetscape and district scale not only take a considerable time to implement, but that their effects can take as long to materialize. The research team have the advantage of a relatively long period to observe change: built into the research is a programme of at least three visits to all 17 individual THI projects (sampled from a total of around 75 schemes at the outset of the work) to undertake field work, including a townscape scoring. The townscape method has particular application here since it is ideal for monitoring change, not recording static conditions. In addition, the work has involved a baseline study to capture the quality of the townscape in the selected schemes prior to investment. As with the JLE research this provides an unambiguous benchmark against which change can be measured.

Adapting the townscape method and the criteria for evaluation to the needs of the THI programme

As with the earlier research projects, the essential method employed in the THI survey relies on detailed field observation and recording of the quality of townscape elements using a pro forma (Figure 2). The elements within the pro forma differ from those used for the JLE assessment, particularly in their emphasis on indicators of conservation quality. These are grouped under three distinct themes: streetscape quality and maintenance; private space in view; and heritage in view. This is to allow aggregation of scores under these heads, and analysis of change with respect to them once the data have been collected. This relates to a central assumption of the research, as well as the main focus of the projects: that private and public space, whilst both contained within a single view, are differently and separately managed. Whilst the quality of elements in the street are normally the product of public spending and public maintenance and design, for example by a local authority, the elements in private space are managed by the individuals owning or controlling that space. The further hypothesis tested in the research is that spending on elements in the publicly-owned part of a view will have an impact on those in the privately-owned part. The third theme, heritage in view, is clearly the most direct indicator of change with respect to heritage provision, maintenance or conservation.

A further refinement of the method as employed for the THI study involves the field worker giving an impression score to serve as a check on the aggregate total derived from the individually-scored elements. In most cases the impression score and the aggregate of individual scores do not vary that much. Where they do, this is usually because there is some additional quality – such as a distant vista – that either improves the overall impression, or gives an impression of dilapidation, decay and visual dreariness or oppression that is not entirely captured by the scored elements. The full emotional or affective 'content' of a view or scene cannot be captured by reference to its visual components alone, since this 'content' must include other aesthetic sensations such as smell and sound; it must also invoke sensations which go beyond the aesthetic – including, for example, fear.

In terms of defining criteria, as suggested earlier, these are now based more clearly on a notion of 'performance' than in previous iterations of the method. In other words, the question is asked, 'how well is the urban quality delivered in the view as measured against a reasonable expectation?' What will be observed is that the qualities listed range between the cognitive and the affective, but all are capable of being scored on a five-point scale using the criteria, and all assume that expectations are both definable and realistic in relation to particular views. They are, therefore, quantifiable.

With respect to conservation in particular, the articulation of clear criteria for assessment can be shown in this example from Table 1:

TOWNSCAPE EVALUATION PRO-FORMA

LOCATION: DATE: TIME:

REFERENCE: WEATHER:

Score between 0 (absent) and 5 (excellent) for each factor.
Impression Score out of 10 (1=couldn't be worse, 10=couldn't be better).

A. STREETSCAPE: QUALITY & MAINTENANCE

A1 - Pedestrian friendly	A8 - Personal safety: traffic .....
A2 – Cleanliness	A9 - Planting: public .....
A3 - Coherence	A10 - Vitality .....
A4 - Edge feature quality	A11 - Appropriate resting places .....
A5 - Floorscape quality	A12 - Signage .....
A6 - Legibility	A13 - Street furniture quality .....
A7 - Sense of threat	A14 - Traffic flow: appropriateness ..... /70

B. PRIVATE SPACE IN VIEW	**C. HERITAGE IN VIEW**
B15 - Advertising, in keeping	C20 - Conserved Elements Evident .....
B16 - Dereliction, absence of	C21 - Historic Reference Seen .....
B17 - Detailing maintenance	C22 - Nomenclature/Place Reference .....
B18 - Facade quality	C23 - Quality of Conservation Work .....
B19 - Planting : private	C24 - Quality of New Development . ....
/25	C25 - Neglected Historic Features .... /30

Impression Score /10

Aggregate Score /10

Figure 2. Blank townscape pro forma as used in the field to score different townscape qualities.

C. Heritage in view

C.25 Neglected historic features

Some buildings of historic significance, either listed or at least part of the streetscape of conservation areas, may be in such poor repair that their future is not certain. Often these structures are vacant. It will be important to note the presence of such buildings.

High: No visible evidence of neglected historic buildings.

Low: Several historic buildings which appear to be in poor repair and may be in danger of eventual loss.

Table 1. Summary score-card for Bodmin, Cornwall at baseline stage, before any investment under the THI programme.

	Score	Out of	%	Out of 5
A. Streetscape quality				
A1: Pedestrian friendly	138	220	63	3.1
A2: Cleanliness	161	220	73	3.7
A3: Coherence	155	220	70	3.5
A4: Edge-feature quality	137	220	62	3.1
A5: 'Floorscape' quality	136	220	62	3.1
A6: Legibility	162	215	75	3.8
A7: Sense of threat	150	220	68	3.4
A8: Personal safety: traffic	141	220	64	3.2
A9: Planting: public	88	140	63	3.1
A10: Vitality	124	215	58	2.9
A11: Appropriate resting places	58	100	58	2.9
A12: Signage	89	170	52	2.6
A13: Street furniture quality	105	215	48	2.4
A14: Traffic flow appropriateness	144	210	68	3.4
Total	**1788**	**2805**		
Average			**63**	**3.2**
B. Private space in view				
B15: Advertising, in keeping	94	175	53	2.7
B16: Dereliction, absence of	130	210	61	3.1
B17: Detailing, maintenance	133	220	60	3.0
B18: Façade quality	135	215	62	3.1
B19: Planting: private	81	120	67	3.4
Total	**573**	**940**		
Average			**61**	**3.0**
C. Heritage in view				
C20: Conserved elements evident	116	180	64	3.2
C21: Historic reference seen	80	115	70	3.5
C22: Nomenclature/place reference	58	115	50	2.5
C23: Quality of conservation work	107	180	59	3.0
C24: Quality of new development	84	170	49	2.5
C25: Neglected historic features	91	180	5	2.5
Total:	**536**	**940**		
Average			**57**	**2.9**
Impression score	**273**	**440**	**62**	**3.1**
Aggregate score	**2897**	**4685**	**62**	**3.1**

In this case it is simply a matter of observing whether neglected buildings of heritage value, or whose contribution to the heritage value of the streetscape is significant, are present and to what degree. The THI application and development of the method have allowed one key principle to come to the fore in our evaluation of places: that we assess them not

against an ideal aesthetic standard, but against what they can reasonably be expected to achieve. This means that different places with different townscape 'quality' (uniqueness, architectural merit, townscape variety, for instance) can achieve the same score. What matters is whether that score improves or declines over time and with respect to particular qualities in the visual field. This is justified in that we are monitoring change, or movement towards a standard that satisfies separately all of the criteria explained in the score sheet.

Representing the data for the THI evaluation

As suggested earlier, the townscape method allows the data to be represented in a number of ways. The scoring also means, of course, that this representation can show changes over time at the micro scale if necessary. For the HLF work we have used two methods for presenting the data: mapping and a score-card. The score-card allows scored values to be presented at a number of levels of resolution: for example a summary can be produced of all the elements in a project and of how these have changed over time (Table 2). Alternatively, a particular theme can be summarized for the whole project, and compared over time – for example heritage in view. A third option is to show change with respect to a particular view.

The other means of showing the data is by mapping. We have found that grouping scores into bands and plotting these on 'view maps' – that is maps that show the location and direction of views – can be a very powerful method of revealing and communicating the impact of spending on the townscape of a place. This allows us to highlight graphically where change has occurred, and to say how these changes map against where spending has happened at the very local level. That is, the mapping can test whether there has been a positive or negative response in the townscape to spending on a cluster or terrace of buildings, or on a public space. Indeed, the scoring of individual themes and elements makes it possible to produce a whole series of maps showing change for particular elements. Such maps avoid the inherent problem of isoline representation, with its assumption that there are regions within an area under assessment with the same townscape score when the score relates to a particular view, not to a generalized area. So, with sufficient resources, over sufficient time, an extremely clear and detailed picture can be painted of how a place has been changed as a consequence of spending on the physical fabric. For example, in West Wemyss, on the east coast of Scotland, 25 miles from Edinburgh (Figure 3), there is a very clear finding that in those areas where buildings have been restored the townscape improved dramatically once building work was completed.

Discussion

The paper has described the evolution of a method for townscape evaluation over a period of some 25 years, by a number of researchers, and through half a dozen significant research projects. The method has arrived at a state which, arguably, allows it to be used to assess the performance of townscapes using explicit criteria to produce numerical results. The fact that the method involves numerical scoring means that the data generated, whilst qualitative themselves (that is, based on empirically observed qualities), can be unambiguously analysed, described and represented. The method also makes no claims to capturing, objectively, the aesthetic quality, per se, of places assessed since it is now based on explicit criteria to do with how well a view performs in relation to particular qualities.

However, a number of issues raised by the method should be acknowledged. The most important of these is the question of the objectivity of the scorers in the field and their competence to score consistently the same view. That is, do different observers arrive at the same score for the same view? Our experience suggests that they do. Although, to give greater confidence in this, the method is

Table 2. Summary score-card for Bodmin, Cornwall at interim stage, 2 years after work commenced.

	Score	Out of	%	Out of 5
A. Streetscape quality				
A1: Pedestrian friendly	125	175	71	3.6
A2: Cleanliness	126	175	72	3.6
A3: Coherence	130	175	74	3.7
A4: Edge-feature quality	127	175	73	3.6
A5: 'Floorscape' quality	120	175	69	3.4
A6: Legibility	137	175	78	3.9
A7: Sense of threat	131	175	75	3.7
A8: Personal safety: traffic	122	175	70	3.5
A9: Planting: public	90	135	67	3.3
A10: Vitality	125	175	71	3.6
A11: Appropriate resting places	48	70	69	3.4
A12: Signage	64	100	64	3.2
A13: Street furniture quality	50	100	50	2.5
A14: Traffic flow appropriateness	117	175	67	3.3
Total	**1563**	**2225**		
Average			**70**	**3.5**
B. Private space in view				
B15: Advertising, in keeping	90	155	58	2.9
B16: Dereliction, absence of	131	175	75	3.7
B17: Detailing, maintenance	127	175	72	3.6
B18: Façade quality	122	175	69	3.5
B19: Planting: private	55	90	61	3.1
Total	**525**	**770**		
Average			**68**	**3.4**
C. Heritage in view				
C20: Conserved elements evident	86	130	66	3.3
C21: Historic reference seen	39	50	78	3.9
C22: Nomenclature/place reference	35	55	63	3.2
C23: Quality of conservation work	60	115	52	2.6
C24: Quality of new development	54	110	49	2.5
C25: Neglected historic features	97	150	64	3.2
Total	**403**	**630**		
Average			**64**	**3.2**
Impression score	**242**	**350**	**69**	**3.5**
Aggregate score	**2491**	**3625**	**69**	**3.4**

always applied with two field workers and requires both to agree a score.

In addition, to test the robustness of the method as an instrument for evaluating the quality of townscapes and when a number of observers are involved, an experiment was undertaken by one of the authors. The test involved 60 third-year students from the

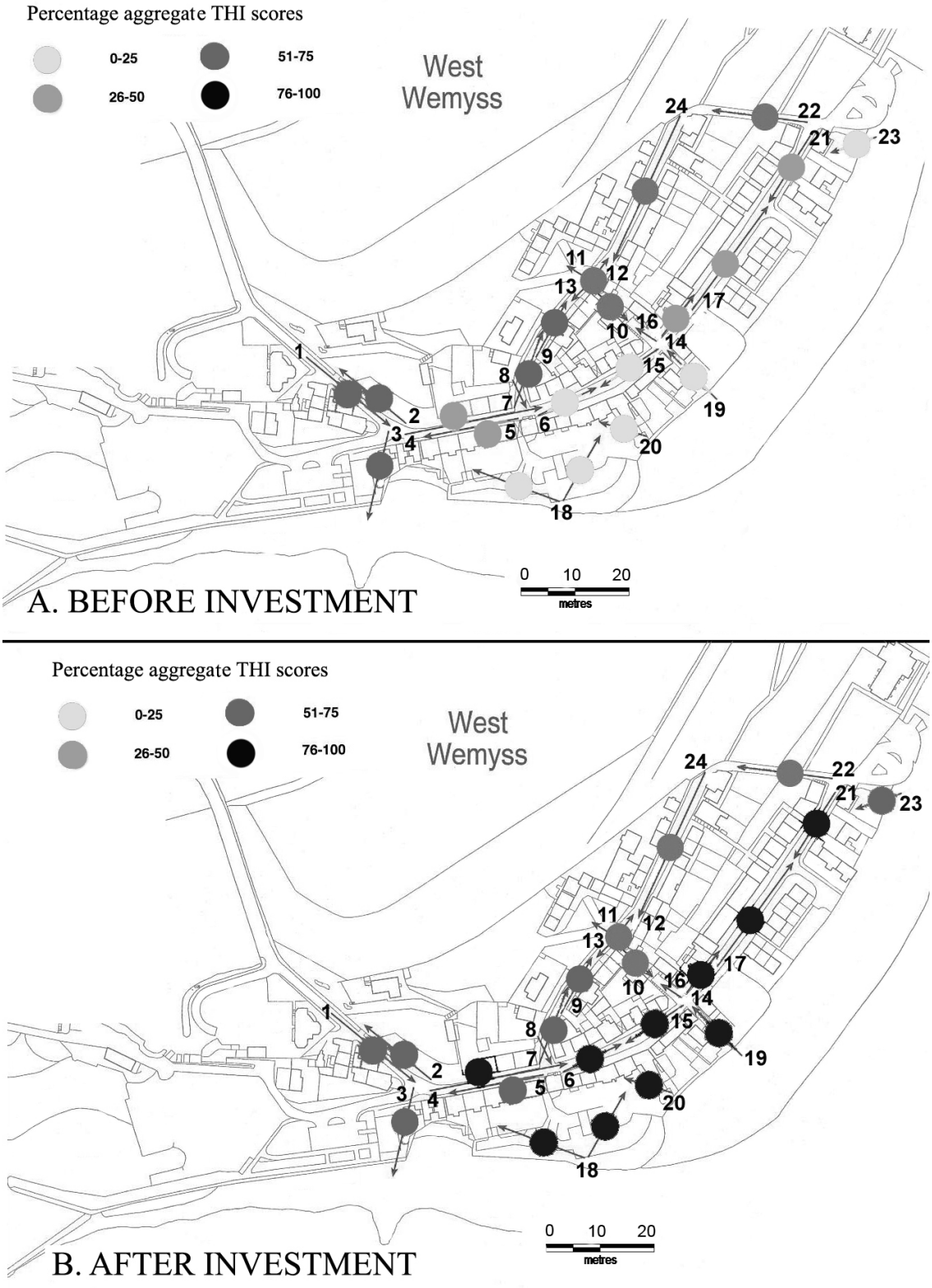

Figure 3. Scores for key views, West Weymyss, Scotland (the higher the number, the better the view). A. Before investment under the Townscape Heritage Initiative. B. After investment. Reproduced by kind permission of the Ordnance Survey (license no. 100017958).

School of Planning at the University of Waterloo in Canada. The participants were given only the written instructions for conducting the survey and sent out to evaluate four views each. The students were divided into groups with each group visiting one of five different local towns or city centres.

The results of their surveys were then analysed and a number of findings emerged. First, there was a wide variation in the recorded scores, varying by as much as 15 per cent above and below the median score. That is, if the highest possible score is 125 and the mean reported for a given view was 65, the reported scores might range from 45 to 85. When the top and bottom 10 per cent of the scores in each group were eliminated the range was reduced to about 8 per cent above and below the median (from 55 to 75). That would still render the technique unreliable if used in this way. However, the second finding was that the aggregated impression scores and the aggregated reported scores were very close, meaning that the observers were very consistent in their own individual impressions and scoring. Finally, it was found that while scores varied greatly among observers, their rankings of the views were quite consistent.

The second part of the experiment involved a sub-set of the class that had undertaken the first surveys. There were two differences from the first test. First, whereas the original exercise was a compulsory class project, the sub-group for the second exercise was volunteers and they were paid a small fee for their services. Secondly, though the participants were again given the written instructions for the survey, they were also instructed to observe one view together, discuss the instructions and arrive at a score for each of the 25 criteria on which they all agreed. In other words they 'calibrated' their scoring system. This exercise took about 40 minutes. The results of analysing the scores of this group revealed that the deviation from the median was between 2 per cent and 3 per cent above and below.

This experiment would seem to support the assertion that motivated users with a minimum of training in the use of the method can be relied upon to produce consistent and comparable scores. The training is necessary, clearly, to induct field workers with the application of the method, and to deal with any possible ambiguity about the meaning of elements, or the criteria for scoring them.

What the method does assume is visual competence and some degree of familiarity with basic planning and urban design terms such as 'legibility'. For the THI evaluation, at least one field worker is required to have conservation knowledge to make informed evaluations of elements under the 'heritage in view' theme. In other words, the method is not designed to elicit lay responses to the visual scene; but the views of researchers, students and professionals with sufficient competence to observe change and to make simple judgements using explicit criteria.

Finally, we considered the use of photographs as the evidence for scoring as opposed to direct observation. The benefit of this approach would be that it allows for greater consistence in the environment in which the assessment is actually made. We have not conducted any experiment to test whether environmental factors (temperature, weather, light, field-work 'fatigue') affect the scoring. However, our view is that whilst a photograph provides a useful record of views scored, it is no substitute for field observation, particularly where certain qualities are really only evident when directly observed. For example, the quality of conservation work is not always captured in a photograph – as in the case of the type of mortar used for re-pointing.

Conclusions

We started this paper with an assertion that prior to our work there had been no reliable technique for translating townscape observation into a manageable set of data that could be used to compare visual environmental quality over time, or between places. What we hope to have shown is that with the THI version of the townscape survey method such a technique now exists, and can be adapted by other researchers in this field. For others

considering using this method in their work we would make four observations.

First, the technique is adaptable to a range of different problems and at different scales in the evaluation of environmental quality; but because of this the examples of elements, themes and criteria given in this paper should not be applied unthinkingly or uncritically. Secondly, the key to using the method is to make clear what counts as an indicator of visual quality, and what the criteria are for assessment – principally that they should always refer back to identifiable physical elements. Thirdly, it is recommended that elements within a scorecard be grouped thematically to avoid the problem of weighting: in this way particular themes (such as conservation quality) can be evaluated separately from other issues without getting embroiled in whether one element has more significance than another. Finally, we would stress that the main value of our method is that it allows the researcher to accurately identify and map areas of different visual performance and quality, and thus can provide powerful evidence for arguing the need to protect, improve or treat in some other way specific streetscapes, groups of buildings or other morphological elements within a given townscape. As a systematic tool for observing townscape it forces the researcher to look closely and assess clearly where change is occurring, and to decide, using explicit criteria, whether this change is desirable.

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Density inside out

The Departments of Geography and Architecture at the University of Edinburgh are organizing a conference on urban density. It will be held in Edinburgh, UK, 6-8 June 2007.

To think of the city is to invoke the question of density. Urban density has been celebrated, cultivated, worried about, managed and shunned. For some, density is what makes the city full of promise; for others it is what determines its problems. Derived from the physical science formula for the ratio of mass to volume of inert materials, in urban applications density has operated as a seemingly objective measure of the ratio of people or activity to area. As a diagnostic tool, density has been employed in fields ranging from the pragmatic science of urban planning, to the art of urban design. But the city is no mere inert material. The conference offers an opportunity to reconsider the relationship between conceptions of density and how technology, infrastructure and buildings are organized. The following are some of the suggested themes:

1. Metaphorical and ideological fortunes of 'density'
2. Density/intensity
3. Measuring density
4. The history of density in urban planning, design and architecture
5. Typologies of density
6. Cultures of congestion
7. Crowding, proxemics and territoriality
8. Prosthetic, dispersed and networked densities

The conference organizers are: Jane M. Jacobs (jane.jacobs@ed.ac.uk), Geography, University of Edinburgh; Stephen Cairns (s.cairns@ed.ac.uk), Architecture, University of Edinburgh; Ignaz Strebel (ignaz.strebel@ed.ac.uk), Geography, University of Edinburgh.

A suburban world?

An international conference on global decentralization and the new metropolis will be held at Reston, Virginia, USA from 6 to 8 April 2008.

A new era has begun in which areas outside worldwide core cities are forming different settlement systems. In Europe, even tight building controls have not curbed the appetite of households to move out of the central cities. China and India, with fast-growing middle classes, are witnessing a startling expansion of their own urban areas with rapid automobile-dependent growth on the fringe. Mexico and Indonesia are beginning to adopt American-style suburban development patterns. As urban form changes, new research and policy have to be created to address the challenges of sprawl, congestion and affordable housing. This conference will explore these and other issues in an American as well as an international context. Themes to be explored include:

1. Immigration and the demographics of the suburbs
2. Segregation by lifestyle and economics; including gated communities
3. Metropolitan form
4. Energy consumption and sustainable environments
5. Governance and regulation
6. Suburban decline
7. Urban form at the neighbourhood level
8. New suburbs and new towns

Conference website: http://www.mi.vt.edu/
Further information may be obtained from: asuburbanworld@vt.edu