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Email:	sarah.hoekwater@astmanagement.com.au

4th International Urban Design Conference

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Built heritage and sustainability: Perspectives on value

Lynne Armitage

*Institute for Sustainable Development and Architecture
Bond University, Queensland*

Abstract

The values associated with built heritage can be identified and defined in a number of different ways, often reflecting the perspective of the commentator. From the Australian perspective, the community's commitment to heritage protection predates that of the formal legislature but has been slower to act than many other OECD nations. The National Trust of Australia, as a community organisation, championed the cause of built heritage more than two decades before the government responded by legislative action. It was not until the 1970's that formal frameworks were established through statutory control mechanisms for the identification and protection of Australia's rich stock of heritage places (Irons and Armitage 2011).

Currently the national conscience is becoming more aware of the need to reduce our carbon emissions. The potential opportunity cost savings achievable by the more effective use of the resources embodied in existing built structures has re-emerged as an area of interest and the imperative for policies and practices across the board to achieve reductions in carbon pollution is becoming normalised, albeit not yet fully mandated. Set within this context, this paper seeks to review the multifaceted elements which contribute to our perceptions of heritage which may be equated to a reflection of our values incorporating yet transcending the merely economic (Ashworth 2002) and also identifies responses being developed to deal with these concerns from a sustainability perspective.

The paper considers some of the many meanings of the relevant terminology and discusses concepts of *cultural heritage*, of *place* and of *value* providing a preface to a review of the value of heritage from a number of perspectives. It considers the benefits of heritage conservation including potential environmental benefits, and offers a contemporary commentary on some economic, social and professional concerns with particular reference to listed commercial office premises and the need to measure carbon footprint of such buildings. Reference is also made to the role of refurbishment and carbon profiling as techniques for reducing carbon emissions based on case study examples.

Keywords: Australia; built heritage; carbon footprint; heritage and environment; heritage value; property value.

Built heritage and sustainability: Perspectives on value

Placemaking has long been recognised as being as complex an activity as the places it seeks to manage. Healey commented quite recently (2010) that, in order to make places better for the stakeholders, there is a need for effective intervention. However, the complexities of urban place must recognise the plurality of purpose which placemaking needs to address as „systems better imagined as overlapping, loosely bounded and loosely coupled sets of relations“ in preference to a hierarchical approach (*op cit*: 226). The stakeholder perspectives of urban placemaking which are focal to the approach adopted in this paper are fairly loose and overlapping and revolve around the value-to-user standpoint of built cultural heritage and its relationship to sustainability. The users may be the owners who occupy their own premises or their tenants and range from the community, financial institutions, public and private occupiers and investors and all are members of the broader society. The main property type under discussion is heritage listed commercial property assets, most specifically office property, but as little research exists in this area quite a lot of the material used has been sourced from studies of residential property where transferable.

Before discussing the main theme of the relationship between built heritage and value these terms will be considered individually. So, firstly what do stakeholders mean by „built heritage“ and secondly what is „value“? The latter part of the paper looks at a case study of a commercial office development and the process of carbon profiling to measure, and thus limit, carbon emissions in the development and use of the property. The paper concludes with some issues of concern which have been identified by the Queensland Heritage Council (QHC).

Meanings of built heritage and heritage place

Given that there are four levels of statutory control over heritage – international, national, state and local – plus community based approaches such as the National Trust and the Burra Charter, defining built heritage can be problematic. However, to simplify matters the following Commonwealth definition gives a good indication of what is meant. Gazetted in 1975, the Australian Heritage Commission Act (AHC Act) initiated the heritage legislative system at the national level and whilst this statute has been superseded, subsequent legislation has reaffirmed the tenets of the Act. The Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act), for example, provides a more contemporary reinterpretation of the original definition offered by the AHC Act. Section 528 of the EPBC Act defines the *heritage value of a place* as including the „place“'s natural and cultural environment having aesthetic, historic, scientific or social significance, or other significance, for current and future generations of Australians“. The EPBC Act also provides for a formal broadening in Australia's heritage focus and offers a more appropriate and inclusive contemporary interpretation of heritage with Indigenous heritage value being specifically referenced and defined within the EPBC Act.

For the purposes of the EPBC Act, *environment* includes the „heritage values of places“ (s. 528). As such, *heritage*, or more precisely *heritage value* is formally recognised as comprising a component part of the environment. A common misconception, rooted in the origins of heritage conservation practice, is that the terms *heritage* and *historic* are synonymous. This has the effect that „heritage means old“ and results in a mistaken interpretation all too often adopted.

Meanings of *value* and *market value*

In the general community, the term *value* as indicated by the OED (1976:1285), has nine separate entries the first of which is *worth, desirability, utility* which is clearly recognised when heritage value is being considered as would another: „*one’s principles or standards, one’s judgement of what is valuable or important in life*“. Such definitions reflect the emotion which is often appropriately associated with heritage and may encompass diverse or conflicting emotions and value judgements (expanded by Ashworth 2002) which may cause disagreement when scarce resources (e.g. for conservation or acquisition) may need to be allocated.

The various definitions of *value* also include *purchasing power, worth as estimated* and *valuation* which is where the perspective offered by this paper is focussed. When an individual or other entity wishes to acquire a property in the market, they have to outbid other interested potential purchasers and so the eventual price reflects the new owner having valued the property more highly than others who were not prepared to match their offer price. This is an individual transaction price and whilst it reflects the purchaser’s opinion of value, a broader measure is required (in many cases) to establish value for, for example, balance sheet or other asset purposes or for establishing market value to support a mortgage. This broader measure is identified by the definition of market value as specified by the International Valuation Standards Council (IVSC), a not-for-profit organisation set up under United Nations’ auspices. The *market value* definition is:

the estimated amount at which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm’s length transaction, after proper marketing wherein the parties both acted knowledgeably prudently and without compulsion.

IVSC 2011

This definition creates some issues when valuing a heritage property if there is no general market for such property but where a heritage listed property is well located from a market perspective, its refurbishment *may* result in a premium price over comparably located property, for example in the commercial office market, whilst also reducing the potential carbon footprint.

Impact of heritage listing on commercial property value

To consider the impact of heritage listing on property value as supported by empirical studies, there have been several in Australia, North America and Europe but most were undertaken in the 1990s and a comprehensive review of that literature may be found in Irons and Armitage (2011). Three of the more informative studies of commercial property are discussed below.

It is often asserted that heritage listing affects property value negatively for example with the constraint on a property’s redevelopment potential having been one of the prompts for the emergence of transferable development rights from listed commercial properties to other sites in the same ownership. A study of non-residential property in Victoria by the Urban Consulting Group (UCG 1995:132) found that the reduction in value may be short-lived and closely associated with the date of listing after which the property market absorbs the new status. Increases in value have been noted when an area/place is listed as this creates added value through the certainty that the local built character will be maintained as with the value of individual properties such as in a streetscape for example

UCG (1995) concluded that there was a range of factors variously responsible for impact on the value of property with heritage listing including: „the nature of the building (building type); the condition of the building; the use of the building and the availability and feasibility of alternative uses; and the location of the building“. This led the authors to the very reasonable conclusion that „generalising conclusions regarding the impact of heritage listing on property value can be problematic“. (UCG 1995a)

Considering more specifically commercial property and heritage control in relation to development value, Dominy (2001) studied seven case studies in Sydney, Parramatta and Maitland. Both passive investment properties and properties that had been subject to adaptive re-use and/or redevelopment were considered. The focus for the former group of properties was on examining the impact of heritage controls on ongoing economic and financial performance and for the latter group of (refurbished) properties it was focussed on the financial feasibility of the individual development schemes on a cost/benefit basis, in light of the heritage controls imposed.

The principal finding from Dominy's study include:

- The economic viability of property development is „first and foremost dependent on market related factors which are not generally related to heritage consideration. The identification of unmet market demand, the presence of favourable market conditions and timing in the market cycle are essential prerequisites for economic success, regardless of whether a chosen property is heritage listed or non heritage listed“ (p. 174).
- In each redevelopment case study the individual nature of the heritage listing did not deter project commitment by a developer.
- Heritage listing, in the four redevelopment cases studied, did not affect negatively the projects' direct financial feasibility.
- Project costs overall were increased in all of the four development case studies due to their heritage listing but the costs were not significant and were found to be recovered and, in fact, were exceeded by the commensurate increases in project value gained via the development incentives which were generated through transferable development rights or other heritage offset bonuses.

Dominy focused exclusively on non-residential property and, as with the UCG study, stressed the dominant role of market-related factors – which are not generally a heritage consideration – in determining the economic viability of development projects.

The third study was undertaken in 2006 by International Property Databank for English Heritage, the Investment Property Forum and the Royal Institution of Chartered Surveyors. (IPD 2006) It is a major study, noteworthy given the number of listed office properties sampled at 221 and their value – GBP 1.6 billion. Whilst the study was national, three fifths of the sample of offices owned by investors (mainly superannuation funds, property investment companies and insurance companies) were situated in the West End of London. The listed properties differed from the total stock of offices held in investment portfolios by being older and also by being smaller. Except for the City of London and London Mid-town, rental values were lower than on the newer, unlisted buildings and investment returns (equivalent yields) were in-line with those of unlisted properties except in the City and Mid-town where they were lower (stronger). The report considered that „the long-term performance of listed and unlisted offices appears to have been identical at the national level“ and, even after the influence of the large stock of top-performing listed properties in the West End is discounted, the return on listed property shows only a 0.3%

weaker yield. When a longer term view is taken, from 1981 when IPD records began, a decline in the number of listed offices owned as a proportion of total office property held by the investors fell sharply: „Whereas the number of unlisted offices fell by 10% between 1981 and 2004, the number of listed offices halved.“ (IPD 2006:6) Their contribution to total capital value also fell from 8.3% in 1981 to 4.3% 23 years later in 2004.

The reasons for the reduced attraction of listed office property to the institutional investor is attributed to the institutions“ increasing preference for large properties; the sale of smaller properties (which are more likely to be the listed ones) to private property companies and other investors who assets are not covered by IPD records; a policy to update the portfolio and concerns of obsolescence in older buildings. In addition, a trend to acquire office property outside Central London (where there are fewer listed office buildings) also contributes to the decrease in the representation in the portfolios. Three positive characteristics of the listed office sample were noted (IPD 2006:i): outside London, there were fewer vacancies in listed buildings; future rental income growth for listed property was greater than for non-listed property (though that may be a feature of that particular market structure) and, in the longer term, lower refurbishment costs have been recorded by investors of listed compared to non-listed property suggesting „investors in listed offices have not had to spend more on refurbishment in order to attract and retain tenants.“

Sustainability and listed property performance

Queensland Heritage Council (2009:6) proffers a number of reasons why heritage matters from a sustainability perspective. It recognises that conserving heritage places is a form of sustainable development which contributes to community identity but that the best way to protect historic places is to ensure their active use and good maintenance, often within a changing economic and/or social context. Direct economic benefits can accrue to both the community and to property owners through local area improvement and continuing use avoids the need in many cases for demolition as more gradual adaptation is more feasible and may be less costly than replacement by new construction.

When considering the value of heritage listed office property, it would be interesting to be able to identify the proportion of such property in use which is in public or private ownership as that in private ownership generally has to pay its own way without subsidy and if refurbishment and retrofitting can be found to be a viable economic outcome, the property can be well employed in the market, valuable resources can be retained and carbon footprints reduced. Asset valuations of buildings in public ownership can ensure effective operation of building services to contribute to a reduction in carbon dioxide emissions which can be reflected in the triple bottom line assessment. The increased value of productive heritage property can contribute to increased public income through the property rating system and indirectly contribute to subsidies for non-economic heritage property.

Sustainability options for commercial property

Although unique neither to heritage listed property nor to commercial property, the following examples of initiatives which are being promoted to support a reduction of carbon emission in buildings and the associated process of construction may be considered relevant to the current discussion.

1. RICS/BIS low carbon construction

Whilst Australia is working its way towards a legislated and then a traded carbon emissions system, there is as yet no national framework established for low carbon construction although compliance with a range of performance standards at the national and state levels is well advanced and the early adoption of green office leases by government has been a strong incentive to property owners to ensure their buildings are attractive to this major sector of the leasing market.

In June 2011, the UK government Department for Business Innovation and Skills (UK BIS 2011) responded to a report of the Low Carbon Construction inter governmental taskforce (LCC IGT) noting, *inter alia*, the need to „demonstrate the benefits of low carbon construction ... in the public and private sector“, enable the industry to better understand future opportunity in this field and enable the market to flourish with appropriate „skills, research and innovation.“ One industry contribution to the debate is from the RICS (2011) which nominated several opportunities for the construction industry to contribute to government and industry programmes to promote low carbon construction. These include the need to consider: a standard method of carbon measurement for embodied carbon, low carbon procurement, appropriate use of „smart building“ systems/building information modelling (BIM), research into energy performance of buildings and places held in the public estate, research into the impact of low carbon credentials on the market value of property, more rigorous requirements for the fit-out of buildings, the extension of green leases for commercial property, life cycle cost assessment and the extension of enhanced capital allowances to incentivise more spending to reduce emissions.

Australia is recognised as a world leader in several of these categories (RICS 2011) particularly in respect of the green lease requirement of the public sector and in carbon accounting. Considering more specifically the role of carbon measurement in construction, a recent analysis undertaken by quantity surveyors and building economists WT Partnership (2011) indicates that „the nett trade cost of construction on a cradle-to-gate basis of embodied carbon will rise by 0.35% to 0.70% as a result of carbon pricing.“ Whilst this will be a substantial sum on a major construction project, compared to other areas of potential cost variability, it is not a large percentage of total costs of construction. If a cradle-to-grave approach is adopted, the carbon footprint of the building over its lifecycle increases and the durability of the building, such as with long lasting properties – many of which may be heritage listed – bears consideration. The longer economic life of the building results in a lower annualised carbon footprint and the deferment of the need to initiate a new structure with the highest incidence of carbon emissions occurring during construction is reduced.

2. Ropemaker Place case study

Ropemaker Place is the redevelopment by British Land Plc of a site in Ropemaker Street in the City of London/London Borough of Islington to provide some 80,000 square metres of office space over 20 floors. The building was completed in 2009. A study of the development was completed by Sturgis and Roberts (2010) using a carbon profiling methodology (fully detailed in the report) which demonstrated that by identifying the building components and choosing materials, designs and techniques to reduce carbon equivalents „the building is shown to be performing overall 63% less than its notional (control) equivalent. What is also apparent is that the majority of these improvements are focussed on the operational side of the Carbon Profile.“ (Sturgis and Roberts 2010) Appendix 1 (op cit:43) of the report also makes recommendations for *all* buildings, stating „A few key areas exist that, if resolved at the design stages, can have a great

effect on a building's durability, longevity, value and overall carbon performance" Their study also highlights the role of the building's occupants who, for 98% of the structure's life between completion and redevelopment, are the source and control of a large part of the building's operational carbon emissions.

It should be noted that Sturgis and Roberts's comment that reduced carbon emissions „enhance value" needs to be viewed somewhat critically as there is no evidence in their study to support this assertion, particularly from a market perspective. The jury is still out on the effect on property value of enhanced green credentials and research from the USA (Eichholtz, Kok and Quigley 2010) found that, between their 2007 and 2010 studies, „the „green" premium decays over time: for every year of "label decay", the rental premium decreases by 0.4 % and the transaction premium decreases by 1.7%." This could be accounted for by the reduced impact of zealous early adopters being joined by more measured tenants and owners as well as from the impacts of a less buoyant American property and employment market during the study period.

Issues

Queensland Heritage Council's 2009 Heritage Strategy (QHC 2009) provides a useful review of issues which remain to be addressed in order for the heritage which we value to be best managed. These include:

- Population pressure, development activity and a resources boom
- Local heritage is identified and protected in an inconsistent manner across the state
- Cultural heritage is not well recognised in the town planning process
- Economic data on the value of cultural heritage to the community is sparse
- Further incentives for owners of heritage property is needed
- The impact of cultural heritage on property values is not extensively researched
- The role of philanthropy from private and corporate donors is untapped
- The potential for heritage offsets to benefit heritage property and places needs strengthening
- Awareness of many aspects of cultural heritage management and contribution is limited in the community and government.

Conclusions

The paper has attempted to link the concept of value from both a built heritage and a sustainability perspective which is a path which appears not to have been trodden by many other researchers, possibly for reasons which are self-evident. The author is very aware that the paper has strayed from its original intention which was to focus on heritage and market value but the decision to look more thoroughly at the impact of sustainability on development practice has greater urgency and is an avenue which is leading to further case study research currently being undertaken on other heritage listed commercial property. These limitations are a consequence of the dearth of material which relates specifically to the nexus between listed property and sustainability. This imbalance will be reduced when next year's conference paper will (hopefully) report on current research into listed buildings' sustainability profiles and performance more directly.

References

Ashworth, G.J. (2002) „Conservation designation and the revaluation of property: The risk of heritage innovation", *International Journal of Heritage Studies*, vol. 8, no. 1, pp. 9-23.

Dominy, C. (2001) *The economics of heritage listings: The impacts of heritage requirements on the financial viability of individual development proposals*. University of Western Sydney, Sydney.

Eichholtz P., Kok N. and Quigley J. (2010) *Sustainability and the Dynamics of Green Building: New evidence on the financial performance of green office buildings in the USA*, RICS Research Report, RICS, London.

http://www.rics.org/site/scripts/press_article.aspx?categoryID=509&pressReleaseID=421

Accessed 15th September 2011.

Healey P. (2010) *Making Better Places*, Palgrave Macmillan, Basingstoke, England.

IPD (2006) *The investment performance of listed offices*, Investment Property Databank, London.

Irons J and Armitage LA (2011), „Built heritage in Australia: a review of domestic literature“, *Proceedings of the 18th Annual European Real Estate Society Conference*, Eindhoven, The Netherlands, 15-18 June 2011.

IVCS (2011) *International Valuation Standards*, International Valuation Standards Council, London. <http://www.ivsc.org/> Accessed 1st September 2011.

QHC (2009) *Queensland Heritage Strategy: a ten-year plan*, Queensland Department of Environment and Resource Management, Brisbane.

RICS (2011) *Low Carbon Construction Innovation and Growth Team Final Report: RICS initial response and potential actions*.

http://www.rics.org/site/download_feed.aspx?fileID=9335&fileExtension=PDF Accessed 1st September 2011.

Sturgis S. and Roberts, G. (2010) *Redefining Zero: Carbon profiling as a solution to whole life carbon emission measurement in buildings*, RICS Research Report, RICS, London.

http://www.rics.org/site/download_feed.aspx?fileID=6878&fileExtension=PDF Accessed 8 September 2011.

UK Department for Business Innovation and Skills (2011) *Government response to the final report of the Low Carbon Construction IGT*. <http://www.bis.gov.uk/policies/business-sectors/construction/low-carbon-construction-igt/low-carbon-construction-action-plan>

Accessed 1st September 2011.

Urban Consulting Group (1995) *Economic effects of heritage listing*. Australian Government Printing Services, Canberra.

Urban Consulting Group (1995a) *Economic effects of heritage listing; Report summary and future directions for Australia's heritage agencies*. Australian Government Printing Services, Canberra.

WT Partnership (2011) *Carbon and Construction – A view of the possible impacts of the carbon price on the Australian construction market*. WT Sustainability, Sydney.