ARTICLE

The Phoenix: The Role of Conservation Ethics in the Development of St Pancras Railway Station (London, UK)

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St Pancras Railway Station, London (UK), has recently undergone alterations that have variously been described as conservation, restoration, refurbishment and rejuvenation, to become the new terminal for Eurostar. This article aims to evaluate the recent changes and relate them to current conservation ethics. Observations were made on site, derived from research in published literature and were assessed according to principles of conservation. The article concludes that, in the recent developments, conservation ethics have been drawn upon in an inconsistent fashion, and that the best description for the rebirth of the station is 'recycling'. Investigation of the 'conservation' of significant items of national heritage, like St Pancras, is essential for formulating future standards and evaluating our own perceptions and the diversity of possible interpretations of conservation terminology.

Introduction

St Pancras is a Grade I[1] listed 19th century mainline railway station situated on Euston Road (London, UK) (**figure 1**). St Pancras was built at the dawn of railway expansion and industrial revolution but subsequently became architecturally unfashionable, disfigured by pollution and deterioration, disused and almost demolished. Its recent transformation into St Pancras International has created an impression of perfection that belies its age to the uninitiated. The role of conservation and restoration, and the station's historical significance is therefore concealed. Furthermore, St Pancras epitomises the struggle between preservation and use. Its extensive alterations to become the High Speed and Eurostar terminal display examples of both following and contradicting conservation principles.

This study briefly examines the history of the station, current conservation ethics and the principles of building conservation. It then attempts to evaluate the recent treatment of St Pancras within this context, and explores how different events and alterations obey or contravene conservation ethics. The key sources of information include personal evaluation of the developments at St Pancras International (terminal and façade) based on visual assessment, planning documents[2], design briefs, conservation guidelines and charters, old photographs, press releases, archived letters, historic society minutes and personal observations on site. The paper attempts to increase awareness of changes made to a nationally significant historic building, and to explore the practicability of conservation ethics through a single case study. This article hopes to explore the difference between portrayal and reality in the recent changes.

The main focus is to evaluate the rebirth of the station: how conservation ethics have been used to obtain permission for alterations and whether these have been carried out faithfully. Although the hotel and shed are collectively listed as Grade I only the public parts of the station are discussed. A deficiency in the definition of conservation terminology is highlighted and difficulty in the application of equal standards when converting built heritage to sustainable use is recognised. In the end, the study attempts to determine whether the recent rejuvenation of the façade and terminal of St Pancras can be termed conservation or restoration, or if neither term is appropriate.

Overview of Conservation Ethics

The primary ethical values in English society are accountability, honesty, loyalty and the pursuit of excellence (Edson 1997a: 76). In conservation these translate as stakeholder consultation, discernible alteration, authenticity and scientific approach. Added to these main principles are reversibility, minimal intervention, sustainability and equal standards. Linguistic uncertainty often hampers their interpretation, application and value. A conservator must make justified choices, but principles can be contradictory and confusing. Ethical ideas often prove to be unrealistic absolutes. Conservators must recognise this and strive for balance.

Reversibility

Child (1997b: 212) believes that reversibility is the basic concept of ethical conservation. It is an acknowledgement that previous considerations are no longer acceptable (van der Vall 1999: 197), materials have proved damaging (Bomford 1994; Hartin 1990) and current conservation methods may themselves prove to be flawed. Reversibility reduces risks and responsibilities (Muñoz Viñas 2005: 185) but it is an unrealistic goal (Caple 2000: 64). In the

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Fig. 1: Eastern elevation.

1970s it was recognised as unobtainable. Conservators now strive for retreatability, stability (Applebaum 1987) and unrestricted future analysis (CAC-ACCR 2000: guidance 16). The UKIC Rules of Practice (1996: 8) in fact deem reversibility unnecessary with 'over-riding…physical reasons and with the consent of the client'.

Minimal Intervention
The concept of minimal intervention rose alongside preventive conservation as reversibility declined (Caple 2000: 65; Williams 1997). The premise lies in considering all possibilities and choosing the option with the lowest impact. Villers (2004: 3, 8), however, believes that minimal intervention is an insufficient guide, it is not accountable, does not take context and use into consideration and its definition varies. The preferred amount of intervention is a matter of taste and expectation, and cannot be determined scientifically (Muñoz Viñas 2009a: 50). Without a qualifier, minimal intervention demands a lack of treatment. Caple (2000) suggests minimum intervention in order to achieve goals. Villers (2004: 8) believes that minimal intervention should be viewed more as 'an attitude of rational restraint' rather than as a principle.

Minimal intervention acknowledges change over time and is most justified when preserving the entire history of an object. In cases, however, it may be preferable to promote a particular value. Whilst promoting one mean-

ing, another meaning is always compromised. The choice lies in which meaning is sacrificed. Muñoz Viñas (2009a: 55, 57) believes it is more appropriate to use the term 'balanced meaning-loss'. Since objects possess different meanings and each stakeholder assigns different values to them, the concept remains largely unhelpful.

Stakeholder Consultation
It is now recognised that because different audiences have an interest in our heritage, they should be involved in decisions regarding its future (UNESCO 2003) through consultation. Different stakeholders will attribute differing meaning to this heritage (Pye and Sully 2007: 23) and different values to these meanings (Allfrey 1999; Clifford 2009: 127). If deterioration is defined as 'changes that are regarded as undesirable' (Staniforth 1994) then identification of deterioration itself is subjective. Where decisions are based on subjective value judgements, conservation can never be truly objective.

Discernible Alteration
Villers (2004: 4) terms discernible alteration as 'an authentication of materials by sensory perception rather than analysis'. The UKIC Rules of Practice (1996: 8) state that all restoration should be detectable with 'common methods of examination' but Ashley-Smith (1982: 4) debates the choice between a virtually undetectable replace-

ment in original material or an obvious substitution by an untested substance that may deteriorate rapidly. The debate has achieved additional complication in recent years; invisible alterations are now considered more ethical if they promote the 'meaning-bearing features' (Muñoz Viñas 2005: 201).

Scientific Approach

The scientific approach gained popularity in the mid 20th century (Muñoz Viñas 2005: 67). It involves investigation into the properties and deterioration of materials and effects of conservation (Muñoz Viñas 2005: 69–70). Clavir (1998: 1) states that the core ethical principle of conservation is the preservation of the physical, historic and conceptual integrity of an object through the application of science. Muñoz Viñas (2009b: 33) believes that the purpose of conservation as science is revelation whilst Clavir (2002) maintains that conservation that is not based on scientific enquiry must be termed restoration.

Sustainability

Conservation must take future users' views and needs into account and thus be sustainable (Muñoz Viñas 2005: 196). But their desires are impossible to predict and conservators must accept that objects might be 'used up' in the present (Pye and Sully 2007: 28). Future generations have no more or less right to enjoy heritage. Child (1997a: 208) promotes the question 'where will the greater good be served?'

The environmental impact of treatments and maintenance must also be considered (Pye and Sully 2007: 28). The most sustainable approach from an object's viewpoint is preventive conservation. Heating, ventilation and air conditioning are likely to be superseded by packaging solutions as museums attempt to reduce their carbon footprint.

Authenticity

According to the Nara Document on Authenticity (ICO-MOS 1994: 2), authenticity is 'the essential qualifying factor concerning values'. In conservation, there has traditionally only been aesthetic, historical and physical authenticity. In the 1980s conceptual integrity was added to incorporate cultural or religious significance (Clavir 1998: 2).

'Real' and 'authentic' objects are seen to possess more intrinsic value than replicas (Muñoz Viñas 2005: 84; Narkiss 2009: 237). Readability, however, can be impaired by deterioration and if original materials have deteriorated, they are no longer in their original state and are therefore no longer authentic. Pearce (1990: 106) believes that only a version of an object can be preserved, not its 'true nature'. Caple (2000: 62) saw the true nature of an object as its original form, but 'relating the authenticity of an object to its original condition (or to any past or presumed condition) is an entirely subjective choice' (Muñoz Viñas 2005: 106).

The concept of 'artist's intent' (Dykstra 1996) brings a difficult dimension to authenticity. In modern art conservation the integrity of concept supersedes matter (Weyer

2009: 197) and modification is permissible (Scheidemann 2009). Some cultures view continual replacement of materials, renewable physicality, to be an integral part of maintaining the spirit and purpose of an object (Caple 2000: 121), whilst Narkiss (2009: 240) is disposed against objects 'dying' in museums. There has been a recent shift from conservation of truth to conservation of meaning (Muñoz Viñas 2005: 173). Muñoz Viñas (2009b: 35) proposes that early conditions are memories or hypotheses, states which no longer exist. The only authentic state of an object is its current condition. All attempts to recover an 'authentic' state are therefore preferences, not reality. Muñoz Viñas (2009b: 36) maintains that conservation cannot make an object more, or even less authentic. This would mean that any action would result in the object's new true state, nullifying the concept of authenticity. This should be recognised, but not used as a licence to abandon the original premise, or as validation for any action.

Equal Standards

The UKIC Guidelines of 1981 state that every object, regardless of relative value, should receive the highest standard of treatment (Ashley-Smith 1982: 2). Child (1997b: 209) and Pye (2009: 136), however, recognise that conservation must either be in bulk or selective. Ethics have become more adaptive: conservators may spend more time and money on particular objects (Muñoz Viñas 2005: 202). Within a single museum the approach varies according to the assigned primary value (Caple 2000: 129). The only consensus is that conservation is value-driven.

Balance

Caple (2000: 62) believes that conservators should strive for a balance between revelation, investigation and preservation. Pye (2009: 136) adds the interests and beliefs of people. Overall conservation ethics are intricately entwined with each other and in the end complicate rather than clarify decisions. A conservator must be aware of all ethical principles but must recognise that they are idealistic absolutes. All objects are unique and each project must be evaluated as such. Stakeholders, both present and future, must be considered, all treatments must not preclude retreatability and all materials must be thoroughly understood. The minimum intervention necessary for attaining laudable goals must be identified and the risks of this treatment considered. Conservation is now value-led (Muñoz Viñas 2005: 180) and the dilemma facing modern conservators is the identification and prioritisation of these values, whilst retaining a consideration of ethical principles. The concepts of pragmatism and prioritisation recognise that conservation treatments are also dictated by available resources, whilst the risk of treatment must be compared with the risk posed by doing nothing.

Edson (1997b: 112) states that 'the demands of ethics are unyielding and museum professionalism is based on the idea of adherence to the highest standards of ethical practice'. In reality ethics are yielding, because many conflict. Adhering to the highest standards of ethical practice has to be a matter of balance and choice. Modern conservation theory is about flexibility and common sense.

The Development of Building Conservation

The mid-19th century, when St Pancras was built, saw contrasting views in building conservation: Eugene Viollet-le-Duc believed that restoration included 'completing' a building to a level which may never have existed (Muñoz Viñas 2005: 4), whilst John Ruskin viewed such acts as unacceptable: restoration as 'destruction accompanied with false description of the thing destroyed' (Ruskin 1925: 353). Ruskin also believed that the signs betraying a building's age are its most valuable feature (Muñoz Viñas 2005: 5) and recognised truth in both honesty of materials and creator's intent (Jokilehto 1999: 180). The late 19th century saw a debate on the principles of building conservation: whether to preserve as a 'witness' to history, restore full-scale or allow deterioration 'for sake of art' (Jokilehto 1999: 149).

Sir George Gilbert Scott, one of the architects of St Pancras, was a prolific restorer. He preached the primary goal of arresting decay and avoiding all conjectural reinstatements (Earl 2003: 60), but rarely adhered to these principles (Earl 2003: 60). He in turn criticised other 'conservative restorers' for such hypocrisy (Scott 1850: 4, 20, 31). It is therefore difficult to judge practice from written ethics alone.

The first organisation to preserve historic buildings in England was the Society for the Protection of Ancient Buildings (SPAB), which arose in 1877 and primarily aimed to prevent any restoration that exceeded weatherproofing (Earl 2003: 60). Over time societies were established to protect more modern structures, i.e. the Georgian Group in 1937 and the Victorian Society in 1958.

Following the devastation of two world wars, the Town and Country Planning Act (1947) was designed to control change, rather than prevent it. The trend in the 1950s was to demolish damaged structures and start afresh with the most modern materials (Derbyshire 1993: 116). Legislation to protect architectural or historic interest only emerged in 1967 and it was another 23 years before the Planning Act (Listed Buildings and Conservation Areas) was established (Cooling *et al.* 1993: 17–18, 54).

The 1970s saw a rising interest in historic houses (Lloyd and Staniforth 2000: 118), educational programmes and urban studies centres across Europe (Appleyard 1977: 12). Preservation of original materials began to be favoured over replacement in the 1980s and there was movement towards a focus on materials science (Jokilehto 1999: 224).

Recent developments in building conservation include 're-establishing the idea of a monument', authenticity of atmosphere and spirit of place (Jokilehto 1999: 235, 298; Lloyd and Staniforth 2000: 121), and the preservation of different types of significance. It is recognised that the restoration of buildings is preferable to complete loss through 'criminal neglect' (Rée 2009: 3) and that sacrifices must be made to accomplish this (Bracker and Richmond 2009: xiv). English Heritage, the government's statutory advisor on the historic environment, sees conservation as the management of change (English Heritage 2008: 7).

History, Significance, Context

St Pancras station opened in 1868 as the terminus of the Midland Railway (Betjeman 1972: 11). The shed comprised a single arch, over 30 meters in height, spanning the 73 meters tracks. It was designed by engineers W.H.Barlow and R.M.Ordish, who also designed the dome of the Albert Hall (Maré 2001: 60) and Crystal Palace (Biddle 1990: 68). The St Pancras shed served as a model for many stations, such as New York's Grand Central and the Victoria Terminus in Mumbai, few of which have survived (Bradley 2007: 47, 79–80). The concourse and façade, designed by George Gilbert Scott, was completed in 1869 (Biddle 1990: 69) (**figure 2**).

The Quarterly Review of 1872 was disparaging of St Pancras' opulence. Six years later, however, *The Times* described St Pancras as 'the most beautiful terminus in London' (cited in Maré 2001: 61). Only 32 years after completion, St Pancras was again considered 'unsightly' (The Engineer 1901). In the 1930s St Pancras was an 'object of derision' (Maré 2001: 64) and the 'sham medieval' exterior was considered horrific (Betjeman 1972: 15). It escaped rebuilding during the 1930s only because the owners lacked funding and in 1948 the antiquated hotel was converted to British Rail offices (Bradley 2007:157, 10) and the undercroft to a car park (Betjeman 1972: 13).

Following the devastation of World War II the 1960s saw huge commercial developments in historic centres throughout Europe (Appleyard 1977: 33). The trend in London was a deliberate exchange of modernisation for history. St Pancras itself was seen as 'too hideous to survive… both nauseating and unworthy of special protection' (Bradley 2007: 158). A 'tipping point' was reached, where the old became rarer than the new. The Victorian Society requested that the station be included in the statuary list of buildings in 1954 and 1961 but was ignored (Williams 1966). In 1966 British Rail planned its demolition. Opinion of St Pancras in the 1960s and early 1970s veered from magnificent to revolting and simply vulgar (Biddle 1973: 128). Gothic architecture was 'mocked and its removal [from existence] presented almost as a public service' (Hawkins 1990: 7). The British public were so incensed by the loss of Euston Station[3], however, that they saved St Pancras, and set a standard to protect many other buildings. In 1967 St Pancras was included in the statutory list of protected buildings (Lansley *et al.* 2010: 222) but the Victorian Society recognised that it would only truly be saved when a suitable use had been found (Lloyd 1968).

Although not an 'intended monument' (deliberately created to commemorate), St Pancras has become an expression of power and pride in cultural and national achievement. With Barlow's shed remaining the largest single span enclosed space in the world (Greeman 2006), it also falls within the building class 'exemplary and instructive'. It is both a document of national history, and a work of art. St Pancras displays characteristic virtues of a school of architectural design, and reminders of the history of industry. The train shed and hotel comprise 'one of the best known, most influential groups of buildings of their period…[and]…epitomises the artistic aspirations and

Fig. 2: Upper storeys of the northern façade.

commercial vision of mid-Victorian Britain' (Cruickshank 1997: 60, 72). St Pancras is 'the proud symbol not merely of the Midland Railway's ambition but of the whole railway age' (Biddle 1990: 74) and is considered an archetype of Victorian architecture, not just of railway architecture (Maré 2001: 60).

> In all England there is no more triumphant affirmation of the power, vitality, self-confidence and sheer panache of the Victorian age (Norwich 1985: 389).

Deterioration and Change

Although saved from demolition, St Pancras was not maintained. The exterior ceased to be cleaned in the 1970s, whilst the interior had been covered with advertisement hoardings (Betjeman 1972: 15). In 1977 British Rail released a statement, insulting in its studied naïveté: 'the destruction of the Euston Arch…marked a turning point in attitudes and thinking concerning conservation of our industrial built heritage' (Pearce 1979: 192). In 1980 the hotel building failed its fire safety certificate and fell into extreme neglect (Urban 75 2003). The surrounding area was seen as dirty and unsafe: 'only someone who loves London and really loves architecture can see through the dereliction to what is underneath' (Stamp 1990: 36).

The exterior of St Pancras had suffered 100 years of weathering and pollution; the interior was coated with particulates from steam and diesel trains. Water damage was extensive (Lansley *et al.* 2010: 41) and the glass roof was patched with temporary materials, letting in little light. Most interior walkways and stairways had already deteriorated. The western elevation was damaged by fire. St Pancras joined English Heritage's 'Buildings at Risk' Register at its establishment in 1998 (MLC 2004: 3).

Rebirth

Over the last 50 years many proposals for a change in use for St Pancras have been devised. The retention of St Pancras as a railway station ensures that a high level of access continues, following the guidelines of the Burra Charter (Earl 2003: article 7.2). In 1993 the station was chosen as the new channel tunnel terminus. The building was deteriorating through neglect and British Rail spent £9 million cleaning brickwork and repairing damaged areas (Bradley 2007: 163; HS1 Limited 2011).

'However drastic [the recent] changes, the painstaking transformation of St Pancras…reflects the values we now invest in our own inheritance from the past' (Bradley 2007: 172). Bradley's 'values' may appear to be economic, but articles 14 and 15 of the Burra Charter offer justification: conservation may include 'retention or reintroduc-
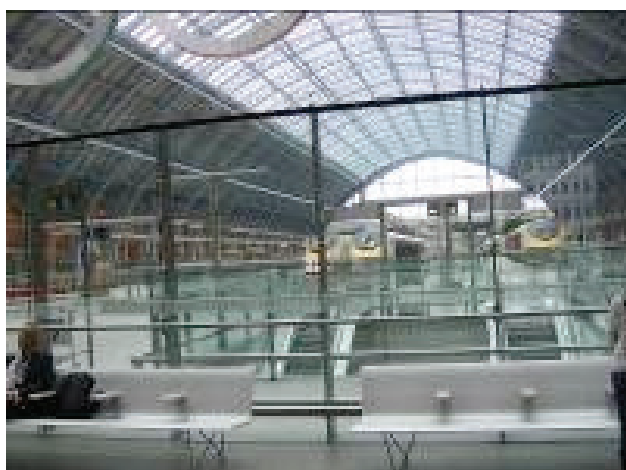
Fig. 3: The current glazing pattern.

tion of a use' and 'change may be necessary to retain cultural significance'. The continuation of a significant use is clearly important.

Channel Tunnel Rail Link Association (CTRLA)[4] stipulated that alteration was completed in a 'sensitive manner appropriate to the Grade I listing of the building' and that London and Continental Railways entered into a 'deed of agreement' with London Borough of Camden council (LBC), the Secretary of State and English Heritage (Lansley *et al.* 2010: 122). This agreement insisted that the eastern façade of the shed be returned to its original appearance 'as far as possible' and that repairs follow English Heritage guidelines: historical fabric must not be 'unnecessarily' destroyed.

The roof was taken back to its original 1868 pattern and the frame was painted sky-blue (**figure 3**). A new raft floor was built to allow four large slots to be cut through the platform deck (Bradley 2007: 164). The platforms were completely reorganised and have been extended beyond the original shed. A glass 'transition' roof joins this extension to the north face of the original shed (**figure 4**). The western façade was demolished and an extension to the hotel was built in its place, mimicking the earlier style.

Various conservation principles were both observed and contravened by different aspects of the recent transformation of St Pancras. These instances are broadly discussed below under the general headings of minimal intervention, stakeholder consultation, sustainability, documentation and balance. Authenticity is discussed separately because it encompasses multiple aspects including repairs and additions. There are, however, many crossovers between these broad groupings.

Minimal Intervention

Villers (2004: 7) cites a compromise in legibility and restriction of use as valid reasons for interventive treatments. The difficulties in restoration of artefacts that are still in use are exemplified by church interiors. Stein (2000: 184) suggests that church furnishings should not be treated as art until they are removed to a museum. Conserving objects often involves preventing their normal use (Muñoz Viñas 2005: 29). Caple (2000: 129) maintains that restoration is permissible for objects destined

for display. St Pancras is constantly on display. In science and technology museums, minimum intervention necessary to repair past damage and replace worn parts far exceeds what would be acceptable for a non-operational museum object (Greeman 2006; Keene 1994: 20; Newey 2000: 137). This is restoration of what the object used to do, was designed to do, however, it is not alteration to suit a modern purpose. In an English industrial museum the dichotomy is between preservation and communication. In St Pancras station it is between preservation and modern use.

When discussing risk analysis within conservation, Ashley-Smith (2003: 123) is concerned with changes in values. The transformation of St Pancras could be seen as increasing economic and aesthetic value of the station, whilst inaction would have seen gradual loss of all values (including historic and architectural) through deterioration.

Several aspects of the work at St Pancras follow the premise of minimal intervention: Rail Link Engineering identified fabric needing repair and tried to predict future losses (Lansley *et al.* 2010: 108), to reduce future intrusion. Many parapet gutters were of flawed design and had led to staining, salt efflorescence, frost damage and plant growth due to frequent overflows. Well-functioning gutters were maintained (Lansley *et al.* 2010: 131). Although a claim to minimal intervention, this could equally have been motivated by financial considerations.

Other interventions, however, could certainly not claim minimalism: the wired roughcast roof glazing was entirely replaced with clear laminated safety glass and the end casings were rebuilt to accommodate it (Lansley *et al.* 2010: 70). Alterations claimed justification in conservation ethics when convenient.

Many changes retained aesthetic integrity over material authenticity. For example, ventilation louvers were installed behind the parapet and chimneys were rebuilt as exhausts (Lansley *et al.* 2010: 133). The opposite is true where disruptions to the original fabric are minimised (**figures 5–6**).

Fifteen new openings for retail units were created in the interior western wall. The arches are simplified versions of their eastern counterparts (**figure 7**). This is not minimal intervention for stability, weather protection or returning to original appearance. This was the minimal intervention required to create openings for retail units. In addition, although not replications, there is limited indication that they are not original features, creating issues of authenticity.

The idea of balanced meaning loss is far more appropriately applied to St Pancras than minimal intervention and it is clear that economic values superseded others. It is evident below, however, that this approach achieved approval from stakeholders, the most important consideration in current conservation theory.

Stakeholder Consultation

The changes wrought on Salisbury Cathedral by James Wyatt (1746–1813) were controversial; some called them vandalism whilst others were delighted with the repairs after decades of neglect (Jokilehto 1999: 106). Most peo-

Fig. 4: The glass and steel extension connecting the new platforms and the original shed.

Fig. 5: a) Suspended signage. **b)** Information points set in the floor.

ple would see St Pancras in the same light. Heritage is for the public, it is meant to improve quality of life. The use of cultural property is becoming more widely accepted within conservation. English Heritage (2008: 43) considers the attainment of 'publically justifiable decisions' to be an overriding goal. Local planning statute insists on public awareness, involvement and consultation with various historical groups (Cooling *et al.* 1993: 18, 61).

In the case of St Pancras, there has clearly been more stakeholder consultation than in most cases of object conservation. In 1978 the GLC mounted a public exhibition,

displaying development options for St Pancras and its environs, and in 1985 it released a Draft Action Area Plan. In 1987 the Railway Lands Community Development Group, founded by concerned local residents, prompted GLC to engage in more consultation with the public and recognise that preservation of the area's historic character was paramount. The next year, whilst London Regeneration Consortium were announcing that no building would be touched without full discussion, the British Rail Property Board began to demolish the historic potato market (Hunter 1990: 127–8, 129, 133). This prompted the Victo-

Fig. 6: a) Suspended ceiling in the passenger lounge. **b)** Speakers camouflaged against the blue girders.

Fig. 7: Right: original arch opening in interior western wall. Left: new opening (replicating those in eastern wall).

rian Society, the Camden Civic Society and English Heritage to join forces to prevent further destruction.

Davies (2005) claims that the only objectors to the development plan were the Commission for Architecture in the Built Environment, out of concern for the hotel extension. Their reservations were outweighed by the project's benefits: 'maintain the integrity of the original structure, preserve the character of the conservation area and facilitate access to a very prominent building'. The replication of the Western façade was fully supported

by the Victorian Society as the 'only appropriate way of rebuilding' (Filmer-Sanky 1997; 1998). In fact Holder (2004) requested that the western elevation be 'truer' to the original design than planned. The Society also stipulated that the new brickwork should be joined directly to the old and they welcomed the reinstatement of the original glazing and slating patterns and the installation of Victorian-style doors (Filmer-Sanky 1999). The Victorian Society supported the cleaning of the brick and stone (Filmer-Sanky 1997) and English Heritage welcomed the return of the shed girders to their 'original or early' colour scheme (Davies 1997). Stakeholders preferred aesthetic 'harmony' over readability.

Sustainability

Sustainable use of heritage refers to several issues: restricted access (to reduce future damage), planned maintenance, the longevity of new materials and re-use of resources. A balance between preservation and use must be maintained (CAC-ACCR 2000: code I). The conflict between preventive conservation requirements and limiting public access, observed at other heritage sites (Drdacky and Galova 2002; Lloyd and Mullany 1994; Schwed 2006) cannot be considered for a working station. The advantage of continuing its existence as a station is continuity of context and significance, which tourist attractions have lost.

Planning applications 2004/3322/L and 2004/3319/P included a sustainability strategy for future conservation, a specified schedule of work for the cleaning of historic finishes and materials (Fox 2006) and a strategy for maintenance (MLC 2004: 17). The Victorian Society supported the use of salvage materials as much as possible (Filmer-Sanky 1997). The maintenance of demand for traditional skills is another aspect of sustainability in heritage (English Heritage 2008: 46).

English Heritage believes that 'places should not be rendered incapable of sustainable use simply because of a reluctance to make modest, but irreversible changes' (2008: 47). Planning legislation promotes alteration of historic buildings for new uses, arguing that they are given 'a new lease of life' (PPG15 1994: 2.18). The London Plan Policy 4B.12 states that the mayor of London supports schemes that make 'use of historical assets' (Argent 2004). Re-use and urban regeneration is seen as an investment in people and a reinforcement of civic pride (MLC 2004: 5) and serves as a catalyst to rejuvenate an area (Latham 2000: 10). This is demonstrably evident within the King's Cross Railway Lands. The Planning Statement claims that the aim of the project was to bring St Pancras into long-term viable use (MLC 2004: 3). The English Heritage Design Brief (MLC 2004: 21) states that this provides 'a sound basis for the building's conservation'.

Documentation

English Heritage (2008: 47) and the UKIC 1996 Guidance for Conservation Practice propose documentation as an instrument of mitigating loss. Documentation is also essential to allow retreatability and to track performance

of materials used. Planning requirements demanded a programme of recording and analysis prior to work commencing and stipulated that all hidden historic fabric, exposed by alterations, would be thoroughly documented before work resumed (Fox 2006). A group named The Conservation Practice was appointed to carry out safety and condition surveys (KCPG 1995).

The recent planning applications, 2004/3322/L and 2004/3319/P, fulfil all requirements of the UKIC Rules of Practice (1996: 5) and UKIC Code of Ethics (1996: 3). Plans, however, can evolve as projects progress, and English Heritage have been unwilling to share records of any deviations.

Equal Standards and Balance

The UKIC guidelines (1996: 2) stress the need to 'use' heritage, whilst local planning authorities use listed building consent to balance historic significance, function, condition and viability (English Heritage 2010). As part of the planning applications, St Pancras' significance was assessed and certain areas were considered worth preserving whilst in others a greater degree of intervention was permissible (MLC 2004: 4). This approach enables viable reuse and minimises damage to the features considered most significant. It recognises the abandonment of equal standards within contemporary conservation practice.

Moore (2011: 35) believes that 'the restoration lacks an overall concept'. This may be the result of a series of conservation decisions, and was therefore unavoidable. English Heritage (2008: 7) maintains that decisions must be consistent or be in accordance with the 'evolution' of a place (2008: 9). English Heritage (2008: 10) also states that harming heritage values is acceptable when making a place sustainable. There is an overriding public benefit or objective, or there is no practicable alternative. This could certainly be used to excuse any intervention to the station.

Camden Unitary Development Plan Policy demands a 'balance between the protection of heritage buildings against other social and economic considerations' (MLC 2004: 8). This was clearly done to their satisfaction, since planning permission was granted. English Heritage (2008: 47) states that risk analysis should include the impact of inaction. 'Going for the least undesirable option' (Earl 2003: 29), a version of minimal intervention evolved into 'alteration is preferable to loss'. The recent alterations, however judged, are at least preferable to complete loss.

Authenticity

To fully evaluate the rebirth of St Pancras, authenticity of multiple values must be considered. These include biographical/material, aesthetic, and conceptual integrity, and how these have been applied to cleaning, repairs, additions, replication and loss.

Biographical/Material Integrity

The SPAB manifesto (1877: 157) declares that it is wrong to remove the life of a building: 'every change, whatever history it destroyed, left history in the gap'. St Pancras' planning statement, however, aimed to 'reverse decades of decline'

Fig. 8: The iron and glass screen between the hotel and train shed.

(MLC 2004: 1) and Lansley *et al.* (2010: 64) claim that 'the restoration has been faithful to the original details'. These viewpoints do not value historic accumulations.

PPG15 (1994, Annex C), a regulation rather than a conservation ethic, permits the reinstatement of lost elements if a building has largely retained the integrity of its design, unless the features were deliberately superseded by later additions. The St Pancras design brief states that existing 'original or early' features should remain (MLC 2004: 4). This displays acceptance of non-original fabric as significant while more recent fabric is unvalued. There is no definition of what 'early' means. In reality early and original fabric appears to have been replaced where convenient. The clock added to the booking hall in 1957 was removed in 1983 (Jackson 1985: 346) and a replica has been created, but earlier features, such as the advertising hoardings and wartime mail shed, removed from the forecourt ramp in 1978 (Davies 1978), were not reinstated. The iron and glass screen between the train shed and hotel (**figure 8**), a later addition, was preserved (Godfrey and Marcham 1952: 117) whilst the glazing of the original train shed roof has been replaced to the Victorian design (Greeman 2006). The eastern staircase, added after St Pancras was completed (Stamp 1988), was preserved, but the southern pedestrian walkway created in 1907 was removed (Lansley *et al.* 2010: 132). This is destruction of the history of the station without revelation of original material. The claim to restoration appears to have been used when advantageous and when function is valued over material integrity.

Originally, the roof trusses were brown; chosen by Barlow to minimise the appearance of dirt. The managing director Allport requested a change to light blue (Lansley *et al.* 2010: 78). Public statements claim that the wrought iron roof girders have been restored to their 'original' blue (Greeman 2006; Tomlin 2007). That they term it Barlow Blue instead of Allport Blue is an additional misrepresentation.

The changes at St Pancras show preservation of a highly selective biography. Both early and original features have been removed whilst some later additions have been preserved.

Cleaning

Soiling can enhance buildings (Earl 2003: 19) or make them repellent (Andrew 1992: 75). Preservation must be focused on a judgement of the most important value of a building.

To clean, to return to the artist's intent, is almost to return to traditional restoration, and to lose the physical record of the period when St Pancras was unvalued (**figure 9**). It is documentation that mitigates this loss. Cleaning removes meaning, and attempts to rewrite history, but enhances other meanings including aesthetics and readability. Repair and cleaning increase the value of the station as a tourist attraction and retail centre, a document of original concept and artistic value. They also reduce further deterioration and increase safety.

The UKIC Guidelines for Conservation Practice (1996) state that removal of non-original matter is appropriate. Oddy (1994: 3) believed that cleaning is unacceptable if it relates to previous use or the deposit is derived from the object itself. Pollution, especially in the interior of St Pancras, from steam, and later diesel, trains, and crusts on the exterior, fulfil both these criteria. Oddy went on, however, to state that cleaning and repainting of objects still in use is not only an acceptable but also natural development. There is no clear path to follow and there is inconsistency in the choice of stages preserved at St Pancras: conservation is a claim applied only where expedient.

Repairs

Repairs can be made discernible to aid aesthetic authenticity, made from new materials for material honesty or from traditional materials and methods to promote conceptual integrity. Salvaged material can be used to promote sustainability and ensure retention of removed materials. The SPAB manifesto is more concerned with honesty and preservation of fabric, than with aesthetics and preservation of concept.

A note, dated to 1924, attached to the SPAB manifesto proposes that new work should not be a reproduction of any past style. Earl (2003: 108, 110), however, believes that 'aggressively visible repairs can distract attention from the very qualities that mark out a building for preservation…

Fig. 9: a) Exterior brickwork on eastern elevation before the recent refurbishments. **b)** The same arches after cleaning and repair.

Fig. 10: a) Visible repairs in the undercroft brickwork. **b)** Visible repairs in exterior walls.

The ideal repair/replacement …is one that the expert can detect fairly quickly and the inexpert will see when attention has been drawn to it'. The Venice Charter (ICOMOS 1966, article 12) states that replacements of missing parts must be harmonious but distinguishable.

Planning applications 2004/3322/L and 2004/3319/P stipulated that all 'works of making good to the retained fabric, shall match the existing adjacent work with regard to the methods used and to the material, colour, texture and profile' and should be approved by English Heritage. This primarily follows aesthetic integrity over honesty of materials.

The fabric of St Pancras has been repaired using originally sourced materials. Motivation for this may lie within conservation science instead of ethics (Van Hees *et al.* 2002: 109–110). All damaged brickwork was cut out and replaced with salvaged bricks (Lansley *et al.* 2010: 134), even though this was not a requirement for planning permission. These repairs are discernible thanks to the colour of the mortar (**figure 10**). Visibility of repairs is essential

for honesty, but they should not detract from the rest of the building. If the original fabric is highly eroded, this poses the problem of whether the repairs should be artificially aged. Child (1997a: 208) believes that at a certain point, extensive conservation becomes fraud. But without extensive work many buildings, including St Pancras, would not survive. To make repairs obvious is to destroy the artist's intent, but to make them indistinguishable is falsification. An intermediate balance was successfully achieved at the station.

Additions

St Pancras has acquired several additions as part of its rebirth: two glass extensions to the north, a brick extension to the west and glass internal walls within the undercroft. Lansley *et al.* (2010: 82–83) claim that the new train shed was designed with a floating glass roof to respect the appearance of the original, and that the glass transept separating the old and the new was designed to reflect the geometry of Barlow's undercroft. Although the materials

Fig. 11: The relationship between the original train shed and the glass transition extension, seen from within the extension looking south.

and shape of the extension prevent any confusion over its relative age, their other claims fail. The transept, set level with the base of the northern gable, serves to obscure it and prevents any appreciation from the exterior (**figure 11**). Dunnet (2002) of RIBA criticises it as harsh, uncomfortable, and unsympathetic. An attempt to mimic the shape of the original shed, but in distinctly modern glass and aluminium, would have achieved a more felicitous result and echo Scott and Barlow's combination of the most modern materials with mock-medieval styling.

The undercroft shop-fronts and the northern extensions are constructed in glass (**figure 12**), a conscious effort to minimise obscuration of the original structure. After cleaning and repair, St Pancras could appear to be a new construction. Juxtaposition of the shed extension and the placement of glass shop fronts in the undercroft, however, somehow add to its honesty. They do not obscure the original fabric, but allow it to be read and appreciated.

A new entrance to the undercroft from the tube station was excavated below the forecourt ramp. This consisted of a red brick neo-gothic style wall and a transition space in the style of the undercroft (**figure 13**). Without direct comparison to the original fabric, they appear original, and their construction required destruction of the hotel basement. There are no conservation regulations or ethical arguments that can be used to justify these actions. Bradley (2007: 167) describes it as a 'nice illusion'. Lans-

ley *et al.* (2010: 146) state that 'the space appear[s] as if it had been created by either Barlow or Scott'. This is self-congratulatory, unnecessary and unjustified falsification.

The neo-gothic architects strove for truth of materials and a 'style of the future' based on metal and glass (Bradley 2007: 84). Most of the new extensions are in keeping with this ethos. Weyer (2009: 203–206) believes that 'authenticity' of art does not reside in materials alone, the moment of origin, or a single point in an object's history, but rather in the aesthetic value and message to be conveyed. The grandiose enlargement of St Pancras certainly abides by this argument.

Replication

The western wall was demolished, ostensibly because it was in poor condition, but conveniently left space for a new cut-and-cover subsurface station. English Heritage requested that the reconstructed elevation should emulate Scott's designs (Lansley *et al.* 2010: 138). A near-identical replica of the Midland Road Façade was created (**figure 14**) (Brick Development Association 2007; Lansley *et al.* 2010: 140). The new elevation received the Brick Awards for Best Craftsmanship and Supreme Winner 2006 and the bricks were created to match the appearance of the originals as they are now, rather than when new. This strange combination of replication, falsification, conjectural reconstruction and completion to a state that has

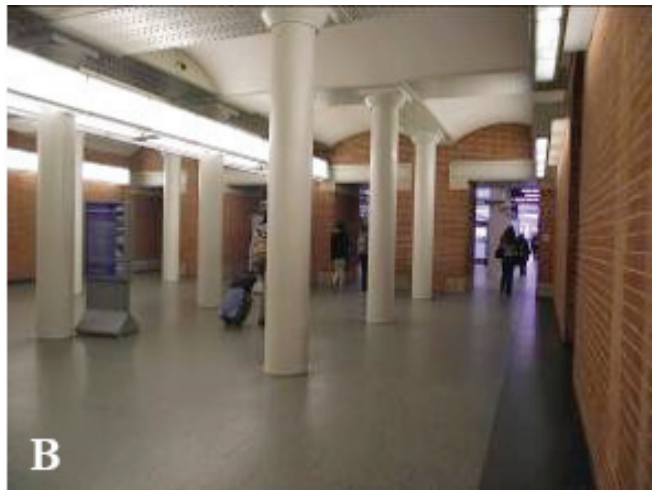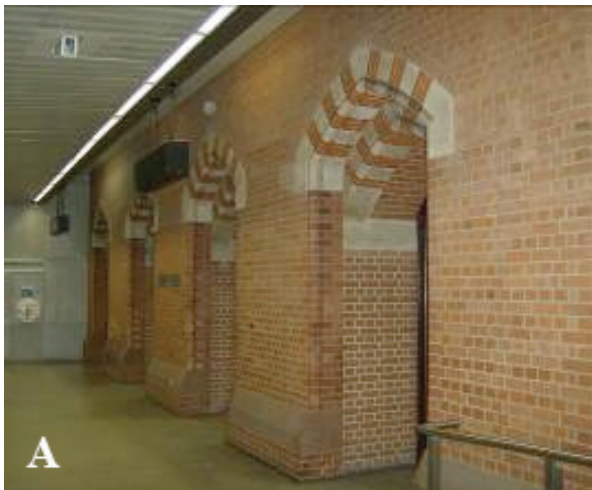**Fig. 12:** The original fabric of the undercroft is still visible.

Fig. 13: a) Mock neo-gothic wall and arches below the forecourt. **b)** New pillars and girders in semblance of the undercroft.

never existed, becomes reminiscent of building conservation practices abhorred since the mid 19th century.

Loss

The Burra Charter (Earl 2003: articles 15.3, 23) states that 'minor demolition' and 'substantial' new work may be appropriate aspects of conservation to retain cultural significance. It demands, however that 'significant fabric' should be catalogued, protected and kept on site (article 33). Some parts of the western wall were reused, but most of the damaged bricks were not retained. Justification for this depended on whether these bricks qualify as significant fabric.

Apart from loss of signs of age, and the western elevation, St Pancras also lost considerable fabric and spatial integrity with the insertion of slots through the shed floor into the undercroft below. The columns and buckle plates damaged in 1941 had been hastily replaced with steel

Fig. 14: Western extension in fresh brick on the left, the original façade on the right.

stanchions and concrete slabs (Lansley *et al.* 2010: 102). Original material that stood in the path of the proposed new openings was moved to repair the war-damaged area. This allowed retention of original material on site, but removed all trace of damage and recovery from wartime. The partial removal of the train-shed floor also destroyed the artist's intent and the architectural record of the original structure. It does, however, allow natural light into the undercroft, making it a more functional area and more sustainable regarding energy consumption. The differences in design of the shed and the undercroft preserve their distinction and a beautiful effect has been created. For the first time the undercroft can be seen by passengers, fulfilling the role of conservation as revelation. Van de Vall (1999: 196) states that 'sacrifice of some value is inevitable'. Ethics, especially where authenticity is concerned, are often incommensurable and these losses must be put into context.

Conceptual Integrity

The cleaning and repairs meant that a period of St Pancras' history has been erased. The building no longer appears old and loses some of its appreciative value to non-cognisant visitors. In this sense, all that remains is utility, aesthetics and conceptual integrity.

Depending on the most important values held by an object, intangible meaning can be of greater significance than physical materials (Pye and Sully 2007: 28). Continued use of a building may be seen as social conservation (Appleyard 1977: 9).

Several changes in intangible significance have nevertheless occurred, to allow overall use to continue. The entrance route to the station has changed (**figure 15**). Bradley (2007: 166) claims that the new entrance route will explain the train shed in new ways. This does not excuse the fact that the grandiose impression, originally intended for rail travellers, is now reserved for hotel patrons. The booking hall is now a restaurant, but retains an indication of its past through its name. The station refreshment rooms have been incorporated in the hotel and are effectively lost to the station.

The huge single span roof was designed to allow flexibility in interior layout (Bradley 2007: 69). The platform reorganisation retains conceptual integrity. For an industrial object to function as originally intended, the intangible needs to be preserved. The use of traditional materials and methods in its preservation requires preservation of skills and crafts (Ball 1997: 29). This can be seen at the repairs and works at the western side of St Pancras.

Earl (2003: 99) proposes that architectural designs have more permanence than buildings. The cleaning and repair of the station obey this premise, but the extensions contravene it. Bradley (2007: 4) claims that St Pancras is 'once again…the finest and smartest railway station in London'.

Fig. 15: The western arch through the hotel, originally the arrival route for rail passengers.

For this to occur, cleaning, repair and extension were essential. The planning summary (MLC 2004: 18) claims that the alterations allow St Pancras to 'regain its rightful position as an important transport gateway'; undeniably a restoration of its intangible significance.

Scott's intent included honesty. To follow this concept, alterations at St Pancras should be obviously modern. The use of modern materials at the extension of St Pancras, seems completely reasonable in order to return its status as a cutting-edge station dominating the district. English Heritage approved the changes at St Pancras as long as they were 'in harmony with its original character' (KCPG 1995). With reference to the intangible values of the station, this has undoubtedly been achieved. English Heritage (2008: 45) considers that 'authenticity lies in whatever most truthfully reflects and embodies the values attached to the place'. If the greatest value of St Pancras is as a train station, then all changes are justified in pursuance of this function.

Giving Rebirth a Name
Conservation ethics are often vague and full of linguistic uncertainty. Disparity between disciplines adds further confusion. This allows almost any action to be both justified and condemned with arguments citing ethical principles.

Restoration
According to definitions in the Burra Charter (1996, appendix II, 1.4), restoration and repair are included within the blanket term of conservation, but are notably absent in the 1999 version of the Charter. Child (1997b: 210) defines restoration as alteration beyond that necessary for preservation. In reality, a building is unlikely to be retained if it is not economically viable, so any restoration can be called preservation. The Museum and Galleries Commission (MGC 1994) and UKIC Rules of Practice (1996: 15) definitions of restoration include actions taken to modify cultural property to reach a known earlier state. This has certainly not occurred at St Pancras.

ECCO (2008) define restoration as stabilisation of an object, facilitating its appreciation and use when it has lost part of its significance. Far more than stabilisation has occurred at St Pancras. A mix from several previous states has been preserved and reinstated. In its closing statement, planning application 2004/3319/P claims that it will have 'restored' St Pancras, but seems to include the western extension within this term. This is impossible, not only because of the extensions, but because removing the marks of time does not bring the station back to an earlier state. The only things truly restored are its intangible qualities, its conceptual integrity.

Preservation
Earl (2003: 5) believes that architectural journalists view preservation as sterile and frozen in time, and conservation as imaginative adaptation, a creative activity. Preservation takes on a different meaning when applied to buildings rather than to objects: 'preservation is synonymous with prudent maintenance – the slow and continuous replacement of that which has decayed and the protection of that which would otherwise decay' (Earl 2003: 5). Again this description cannot apply to St Pancras.

Conservation
De Guichen (2007: 71) believes that the purpose of conservation is to bring cultural heritage into 'the soundest state possible, with the richest message for specialists and public of today and tomorrow'. St Pancras has been brought to a sounder state, but the message has become confused.

The Nara Document on Authenticity (ICOMOS 1994) permits 'enhancement' within its definition of conservation. Villers (2004: 9) states that conservators must accept that objects will change over time. Conservation is a way of managing change and intervention is a relative treatment.

Highly skilled work that does not involve total demolition is termed building conservation (Earl 2003: 110). The Department of the Environment claims that building conservation is 'the creative synthesis of preservation and change' (Kaukas 1982). St Pancras would fit their definition of conservation.

The Burra Charter (1996: 1.4) states that: 'conservation means all the processes of looking after a place so as to retain its cultural significance [and may include]…adaptation'. This initially appears to allow the work at St Pancras to be defined as conservation, but their further qualification disproves this concept (1.9, 1.10). The changes at St Pancras have been too extensive.

Muñoz Viñas (2005: 57) proposes that for an item to become a conservation object, the original function must

be exceeded by the non-original symbolic function. St Pancras station would therefore not qualify as a conservation object, and need not be conserved. It is nevertheless an object of value and it must still be classed as heritage. Molina and Pincemin (1994: 77) maintain that buildings that are still in use must be termed 'living heritage'.

Choosing a term

Architect James Wyatt (1746–1813) earned himself the title of 'the destroyer' and condemnation from both Ruskin and Pugin, for rearranging and removing parts of the interiors of Salisbury and Lichfield cathedrals (Earl 2003: 53). The recent treatment of St Pancras is not dissimilar, but has been variously named by different stakeholders:

Lansley *et al.* (2010) and the developers (HS1 Limited 2011) use the term 'restored'. English Heritage claims that it is 'conservation' (MLC 2004: 21) whilst Davies (2005) calls it 'refurbishment'. Planning consent was obtained for 'restoration' of the façade and 'redevelopment' of the undercroft (KCPG 1995). London and Continental Railways termed it 'rebirth' (LCR 1998) whilst heritage advisors, Richard Griffiths, name it 'regeneration'. The mayor of London at the time claimed to be committed to 'preserve' London's transport heritage (Davies 2005). Bradley (2007: 166) most closely approached honesty by using the term 'reincarnation', but with the extensive additions to bring the station into modern use, and the re-use of salvaged material, 'recycling' has to be the most appropriate term.

Fig. 16: St Pancras the Phoenix, eastern tower.

Conclusion

The greatest omission of this paper has been lack of stakeholder consultation due to constraints of time and resources. More detailed information regarding the true motivation behind decisions could be generated through interviews with English Heritage, the architects, the Secretary of State and the building contractors. The study should be repeated on the Midland Grand Hotel and the current remodelling of King's Cross station. It would also be interesting to explore the concept of proportion, i.e. the amount of change acceptable on a small object extrapolated to the size of St Pancras.

St Pancras is a monument to Victorian architecture and industrialism that has largely survived the passage of time and the events that have claimed many other historic stations. St Pancras has been transformed not only into a major transportation hub, but can be seen as a monument to how we currently treat our built heritage.

This study has highlighted how ethical principles and language have been used in both planning applications and public announcements to justify the developments, but have been inconsistently applied. The principles of conservation have been used to validate opposing actions where convenient to the developers. Although it may never be known whether the preservation of historic fabric represented material fetishism or was financially motivated, the end result is a magnificent, sustainable station, the majority of which is not only accessible for our use, but will also be preserved for future generations. Historical integrity has been compromised, but conceptual integrity has been regained. Accountability and the pursuit of excellence have been achieved, although honesty and loyalty, the remaining ethics featuring in our society, were observed only sporadically.

Conservators now recognise the necessity of adaptive ethics. Conservation is value-led; the economic significance of the station, its retail opportunities and its contribution to the improvement of the local area for the public were considered the most important values. Recurrent themes within the planning application were public benefit outweighing loss and bringing neglected heritage back into sustainable use. This is the argument of risk assessment: cost against benefit, the wider benefit being the sustainable regeneration of the area. Faced with the certainty of complete loss, the overall action of recycling St Pancras can be seen as necessary and ethical. Although not conservation, this is disaster mitigation. The reality is that buildings must be altered and some ethics be contravened, or the building will be lost to neglect or demolition.

The principle value of St Pancras is as an active transportation hub and compromises have had to be made to preserve it. Overall this has been an amazing rebirth for a station once designated for demolition…St Pancras the Phoenix (**figure 16**).

Acknowledgements

Notes

[1] In the United Kingdom a listed building is a building that has been placed on the Statutory List of Buildings of Special Architectural or Historic Interest. A listed building can only be demolished, extended, or altered with special permission from the local planning authority. Grade I is the highest level signifying buildings of exceptional interest.

[2] Planning permission is required in England for the construction of new buildings, the alteration of existing buildings or an alteration in the use of land or buildings.

[3] In 1959 British Rail gave London City Council (LCC) the required 2 months notice for demolition of nearby Euston station and its Doric propylaeum. LCC agreed but requested that the arch be re-erected elsewhere, to which British Rail replied that the cost would be too great. Despite an offer to move the arch and a campaign to save it, the arch was demolished in 1961 (Jackson 1985: 53): 'one of the most unnecessary and outrageous acts of institutional vandalism of the post-war period' (Richardson 1999: 159).

[4] This is the management company for the European rail connection. British Rail was privatised in 1997.

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