Contingent Boundaries – The Channel Tunnel Rail Link considered as an Architectural Ensemble

by

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This essay, on the application of 'Core Data' to the 'Architectural Ensemble' arises from work carried out within the Council of Europe's group of specialists on architectural heritage documentation and on work on the development of the MONARCH database of the Royal Commission on the Historical Monuments of England. The Core data index to historic buildings and monuments of the architectural heritage was finalised following the agreement of delegates to the European colloquy held in Nantes in 1992 - Architectural heritage: inventory and documentation methods in Europe. Following the approval of the Cultural Heritage Committee of the Council of Europe, it was published in 1995 as 'Recommendation R(95)'s of the Committee of Ministers of the Council of Europe to member States on co-ordinating documentation methods and systems related to historic buildings and monuments of the architectural heritage'. A related core data standard for archaeological sites and monuments has subsequently been agreed by a separate working party.

Although the core data index originally was developed to address the need for information standards in recording basic information on individual buildings, it was recognised that there was an equal need to define mechanisms for recording associations between monuments, and between monuments and their environment - the context in which buildings are assessed, studied and conserved. The application of the core data methodology to the recording of ensembles is here illustrated using the wide geographical spread of buildings which are linked by their association with the Channel Tunnel Rail Link.

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Waterloo International Station, London. One of Jean-Luc Vilmouth's Channel Fish

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communications technology, to link the Channel Fish with Arsenal Football Stadium is merely to demonstrate that the whole world may be viewed as being composed of webs of inter-connecting and inter-dependent families, based on functions and their evolution. The identification and documentation of such families, or ensembles, has begun to be a major concern in those European bodies which are concerned with the preservation, conservation, promotion and understanding of our

architectural heritage and with the planning of the sustainable growth which will, if we attempt to view the world with perhaps unwarranted optimism, ensure harmony between the past, the present and the future.

The starting point within the context of architectural documentation for a consideration of the architectural ensemble, is the publication of the Core data index to historic buildings and monuments of the architectural heritage. The index follows several years of work by specialists who sought to identify the minimum amount of information required in indexing, ordering and classifying material on the built heritage of Europe, in such a way that questions could be posed and comprehensible answers received within and across national boundaries. The basic aim of the index is to enable the classification of individual buildings and sites by name, location, functional type, date, architect or patron, building materials and techniques. physical condition and protection status. It is not an end in itself, but a starting point - a key to further information and a mechanism for identifying the more detailed, analytical work which may be required for a fuller understanding of the monuments of the past (Fig.2). When computerised, the index is designed specifically to enable the compiler not only to record the individual building but to relate it to the larger site of which it may be a component or to the still



Data elements (above) and potential links to associated data (below)

greater ensemble of which it may form a part. This for example may enable the compiler to choose within a category of buildings the examples which are the most representative and most worthy of further study or preservation. The index may also be used by the compiler to cross refer to such other information as associated archaeological or environmental factors, fixtures, fittings and machinery, and so on. How these separate elements may themselves be structured is now a matter for debate. In a rapidly evolving environment, in which we may need 'to know something about everything, rather than to know everything about something', the search for the irreducible minimum amount of information required for a documentation capable of satisfying all potential requirements may appear to be akin to the search for the philosopher's stone. However, the consideration of a framework for the mapping of relationships within and between ensembles, based on or leading to the individual building or site is rather more fruitful.

The architectural ensemble manifests itself in many different forms. It may be typologically or geographically defined. It may be planned or organic, unified or accidental, functional or visual. An ensemble may be a collection of buildings grouped by association, such as a farmstead or mining settlement, united by a common functional purpose or community of interest. It may be based on the hierarchical relationship between a larger structure and its components, such as the apartments in a house or the machinery in a factory. It may be spatial, involving considerations of the relationships between buildings, the spaces between them, and the landscape in which they sit. Different cases and organisational priorities will result in our defining it in varying ways according to circumstance, imposing cut-off points in different places, in order to make the material manageable and to allow us to make such connections as will permit a more rounded view of the heritage. The heritage is not a tidy set of discrete monuments, stranded in time, but an unruly, mutable gallimaufry which covers the whole range of human endeavour and comes right up to the present day. This may be illustrated simply by looking at the separate elements within an extensive linear ensemble which themselves form part of other ensembles. These divisions and sub-divisions raise the important question of where an ensemble begins and ends; how certain historic functions within the ensemble arose; how they evolved and changed; and how these





historic functions play a part in the current pattern of buildings and their uses (Fig.3).

The Channel Tunnel Rail Link (CTRL), one of the most significant engineering projects of the century, will run in England for 108 kilometres (sixty-eight miles) from the Channel Tunnel (at Cheriton, near Folkestone) via Ashford to London, currently to Waterloo but in due course also through east London to King's Cross/ St Pancras where it will connect with trains from Scotland and the north of England. It is an ensemble which has implications for historic buildings, archaeology and the natural environment, as well as implications for the population and for the economy. It carries in its wake significant development opportunities, as well as threatening twenty listed buildings and a scheduled ancient monument. It has implications which have resulted inevitably in solutions which have not always been mutually compatible. The potential route which best respected historic buildings for example, was the one which was most damaging to wild birds by threatening the growth of sea lettuce on the estuary of the River Thames. It also has significant implications for documentation.

Beginning with individual buildings within the CTRL, the information required for the compilation of core data may act as a starting point for the modelling of hierarchical, spatial and associative relationships, which can be achieved by crossreferencing within the core data structure. These relationships may be exemplified as follows: hierarchical – the Channel Tunnel Terminal is part of the CTRL; spatial

- Waterloo Station contains the CTRL International Station; associative the CTRL is associated with the King's Cross redevelopment area which is in turn linked with the Finsbury Park/ Arsenal suburban district (Fig.4). With such relationships in mind, we might progress from the admiration of the kinetic Channel Fish to the quiet





contemplation of Arsenal Stadium, within an overall consideration of the Channel Tunnel Rail Link and its buildings, by looking at five distinct areas in varying degrees of depth: Cheriton, the Gare du Nord, Waterloo, King's Cross/St Pancras and Finsbury Park/Arsenal. The boundaries of these areas may be regarded as contingent, as are the boundaries of any ensemble, because although they are not arbitrary, they are conditional and negotiable. In this context, the associations and relationships within an ensemble are not absolute but are defined by the individual recorder who must have the freedom to classify information in such a way that links can be made and conclusions drawn which are relevant in a wide variety of circumstances.

The eighteen buildings which have been erected on the large site at Cheriton,



Fig.5 Cheriton, Kent. The ramp to the trains at the Channel Tunnel Terminal



Fig.6 Cheriton, Kent. The Channel Tunnel Terminal Frontier Control

below Shakespeare's Cliff, were all built in 1993 as white pavilions in a green landscape by the Building Design Partnership, which has been responsible also for the Eurostar station at Ashford, opened in 1996. Spread across a site which clearly is laid-out not only with trains but also with cars and lorries in mind, this is an architecture to be seen and understood through a windscreen. The distances between the buildings and the scale of the roads and bridges inhibits perambulation (Fig.5). We are directed to frontier and security controls (Fig.6), to scanning sheds, to administration, to amenities and maintenance and lastly to trains. But these can be an optional extra; the Exhibition Centre is not just for travellers, but if they have time they may take the opportunity to be reassured in a less allusive manner than is adopted at Waterloo. At Cheriton the apprehensive traveller is treated to a choice display of life-size tableaux vivants of family groups, remarkable for their ordinariness, which are emblematic of a nineteen-fifties England of the mind in which life holds no significant threats. Some of the figures are captioned; others sport television-screen heads which inform and reassure the nervous and, like the Channel Fish, underline the ordinariness of an extraordinary situation. Elsewhere, the history of the attempts to build a tunnel is shown, rather more conventionally. First mooted in the early nineteenth century, with abortive attempts at construction in 1880 and 1975, the display includes one of the enormous boring machines, used for constructing the three tunnels in the sea-bed. The heaviness and mass of the machinery required to achieve this marvel of engineering is in strict counterpoint to the lightness of the architecture which serves it. There is an avoidance of monumentality about the shining aluminium walls, the light steel canopies and particularly, the tent-like teflon roof of the Passenger Terminal which transmits an altogether different message from both the animated family groups and from the massiveness of the system of roads, bridges and blast walls. These are impermanent sheds for the rapid processing of travellers; only the elegant aluminium and glass Customer Service Centre (more prosaically, the Booking Office) (Fig.7), shaped like the superstructure of an ocean liner, evokes a more refined and glamorous age, as remote in its way from contemporary experience as the stable family groups with their short-back-and-sides haircuts and well-scrubbed faces.

It is indicative of the semiological shift in the language of the architecture of travel and the expectations of travellers that monumentality is no longer a prerequisite. In this context, it has lost its capacity either to excite or to reassure by offering a theatrical grandeur to the acts of arrival and departure. Hence at Hittorff's Gare du Nord of 1861-5, one of Europe's great railway termini, the Paris Eurostar terminal has been simply inserted beneath the iron and glass shed with the minimum amount of disruption and display. Only a version of Ludmila Tcherina's sculpture, *Europa Operanda*, installed in May 1994 to mark the inauguration of the tunnel, makes a pass at the symbolic. The drama here lies not in the architectural restraint of the new, first-floor approach but in the elegance of the fixtures and fittings and in the predatory lines of the trains themselves.

At Waterloo, the original building of 1901-22, by J.W. Jacomb Hood, A.W. Szlumper (engineers) and J.R. Scott (architect) came after the great age of railway

Transactions of the Ancient Monuments Society



Fig.7

Cheriton, Kent. The Channel Tunnel Terminal Customer Service Centre

termini. The steel and glass shed is purely utilitarian; the stone facade attempts to recall a nineteenth-century monumentality but the cramped site and the oblique approaches guarantee failure. Within, the new International Station, built alongside the old as the terminus for high speed trains to Paris and Brussels, may come to be recognised as one of the great buildings of the century (Fig.8). Designed by Nicholas Grimshaw & Partners (architects) and YRM Anthony Hunt Associates (engineers), it was completed in 1993, one year before the trains arrived. The steel and glass shed is not a traditional arc in section but is launched from its concrete base as a series of intersecting arches made of trusses which are longer on one side than on the other. This enables the shed to curve and expand as it wends its serpentine way along the long and narrow site. It is a building which is remarkable not only for its technical virtuosity and verve but also for the high quality of its details and finish. It is comparable to Norman Foster's Stansted Airport in bringing back a sense of drama to the experience of travel; a dashing and efficient equivalent to the monumentality of the early termini. This is an architecture which channels and controls, yet is celebratory, and unlike the matter of fact addition to the Gare du Nord, there is no risk of getting wet as you walk the length of the platform.

So far in this discussion, the ensemble has included principally the new structures of the CTRL and touched on their relationship with older railway

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Fig.8 Waterloo International Station, London

buildings and various ancillary items, related hierarchically and spatially - sculpture, *tableaux* and machinery. With King's Cross/St Pancras the ensemble becomes more complex since the two great nineteenth-century railway stations are closely related historically to industrial and domestic ensembles which developed as a result of their presence. Here we are dealing with major complexes which have been the subject of considerable study in recent years by historians and planners, since the new buildings and routes required for the eventual CTRL extension inevitably will bring change to the historic environment.

King's Cross/St Pancras is an ensemble created for and defined by transport links. Although principally a nineteenth-century development, both Georgian and Victorian, the area has earlier transport connections, being the point at which the road north to Hampstead crossed the road from the west of London to the City. At this same point, Battle Bridge crossed the Fleet River. The settlement of Battle Bridge became King's Cross following the raising of a statue to King George IV which survived for only six years - 1830-6. King's Cross Station, built on the site of a smallpox hospital as the terminus of the Great Northern Railway in 1850-2, to the design of Lewis Cubitt, has two 244 metre (800 feet) long train sheds with spans of thirty-two metres (105 feet) behind the functionally expressive brick façade (Fig.9). The original timber and glass roofs were replaced by iron and glass in 1869-87. The clarity of the façade has been compromised by crude additions but the grandeur of the overall composition survives. On an adjacent curved site to the west, in 1854, Cubitt added the Great Northern Hotel which faces Pancras Road. This leads to one of the least expected of ensembles, the eleventh-century St Pancras Old Church which contains within its grounds the tomb designed by Sir John Soane for his wife, as well as a late nineteenth-century mortuary chapel. Some of the churchyard was destroyed in the eighteen-sixties by the development of the railway lines, but the railway company was able to make some reparation by laying out the gardens in their present form.

At the southern end of Pancras Road, to the west of King's Cross, is the terminus of the Midland Railway, a company which hitherto had shared King's Cross. St Pancras, named after the nearby church, replaced the slum area of Agar Town. This originally had been the designated route for the Regent's Canal, but following a change of route, a shanty town with no proper drainage had sprung up. W.H.Barlow's iron and glass train shed of 1868-74, is shorter than the King's Cross sheds (210 metres; 689 feet) but over twice the span of each (73 metres; 240 feet). In front, Sir George Gilbert Scott's richly elaborated Midland Grand Hotel, which its architect is said to have considered to be too good for its purpose, is a building still in search of a use commensurate with its grandeur following the closure of the



Fig.9 King's Cross Station, London, in c.1900 RCHME Crown Copyright

hotel in 1935 (Fig.10). It plays a minor but significant part in social history in being the site, in 1890, of the first ladies' smoking room in London.

Adjacent to these two great termini, in an area which in the nineteenth century was notorious for poverty and disease and is today suffering the effects of continuing economic decline and uncertainty, several examples of model working class housing were built in an attempt to improve These conditions. include the surviving Stanley Buildings, beloved of the grittyrealist school of film directors, built in three blocks with unexpectedly Italianate balconies, for the Sydney Waterlow Improved



Fig.10 St Pancras Station and Midland Grand Hotel, London, in c.1910 RCHME Crown Copyright

Industrial Dwelling Company by Matthew Allen in 1865. Nearby, in E.Gruning's German Gymnasium of 1864-5, designed for the German Gymnastic Society, the laminated wooden arches of the roof are rare survivals, comparable with the original trusses at King's Cross Station, although the building has been partitioned and a floor has been inserted for warehouse use (Fig.11). To the north, two groups of cast iron gasholders of 1861-83, elaborated with superimposed orders, act as a fulcrum within the overall landscape, placed as they are at a crucial point of confluence of rail, road and canal.

The Regent's Canal, cut between 1812 and 1820 by the engineer James Morgan, links the Grand Junction Canal to the west with the River Thames to the southeast. This represents the edge of another transport ensemble, which shares with the railway complex Lewis Cubitt's granary of 1851-2, a warehouse capable of holding 60,000 sacks of grain, with hoist doors on each floor giving access to both the canal and the railway sidings. Cubitt also was responsible in 1851-2 and 1859-



Fig. 11 The German Gymnasium, Cheney Road, King's Cross, London, illustrated in *The Builder*, 19th May 1866

60 for two groups of coal drops - coal arrived in trains at the upper level and was released through openings in the bottom of the trucks into hoppers at the lower level from which it was distributed by carts. The structures now are not easy to comprehend - their function was commonplace and understood until they went out of use, unrecorded. One was converted to warehouse use in *c*. 1900, the other was damaged by fire, and the railway tracks were removed: 'from the way they hold their secrets they could as well be survivors of the Roman occupation as structures only recently abandoned' (Hunter & Thorne). The entrepreneur Samuel Plimsoll, later famous for his campaign for safer merchant shipping, was instrumental in extending the dropping and transfer of coal nearer to its market in the London suburbs, where he is celebrated, in Finsbury Park, near the railway line, in the eponymous public house. Its sign commemorates, anachronistically, shipping rather than his earlier railway activity.

The Finsbury Park/Arsenal area retains evidence of earlier buildings, but it is quintessentially a railway-led suburban, domestic and recreational development of the nineteenth century. It is itself an ensemble, with its railway connections linking it directly with the King's Cross ensemble, three miles down the tracks. The Park, of 115 acres, was one of the earliest of municipal parks, opened in 1869 to provide

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recreational facilities and fresh air for those who lived and worked further into the 1869 speeded the expansion of the area and the city. The railway station of underground railway followed in 1906. The adjoining underground station, Gillespie Road, opened in the same year. It was rebuilt and re-named Arsenal in 1932 after the adjacent football club had moved here in 1913 to the Highbury ground, in the teeth of local opposition, from Woolwich, south of the Thames. Claude Waterlow Ferrier's new west stand of 1931-2 coincided with a period of great achievement for the club under the management of Herbert Chapman. A new east stand, with an imposing street frontage and a grand marble entrance hall, designed by William Binnie, followed in 1936. Later alterations culminated in the opening of a new north stand in 1993-4. Designed by the Lobb Partnership with the engineers Jan Bobrowski, after earlier designs by others had excited vigorous local opposition, this stand is recognised as one of the most successful in the country. The structure is expressive and the styling in keeping with the Art Deco detailing of the earlier buildings (Fig.12). The football ground is merely the most prominent recreational (and commercial) structure in the area, dwarfing the surrounding terraces of housing. Buildings for recreation represent a further ensemble - a theme within a theme. Others include the vanished Vaudeville, now the site of a block of flats which retains the name but not the spirit of the Edwardian music hall; the Finsbury



Fig. 12 Arsenal Football Club, Avenell Road, London. The north stand of 1993-4



Fig. 13 Cinematograph Theatre, Seven Sisters Road, Finsbury Park, London, photographed by Bedford Lemere in 1915 RCHME Crown Copyright

Park Cinematograph Theatre of 1909, subsequently the Finsbury Park Cinema, which after many vicissitudes and the stripping of a once exuberant façade, became first a bingo hall and then a ten-pin bowling alley (Fig.13 and Cover Photograph); and the former Rainbow Theatre, built to the designs of Edward Stone as a cinema, the Finsbury Park Astoria, in 1930. The brick and faience façade conceals a highly dramatic Hispano-Moresque fantasy auditorium which has played host to, among others, the Rolling Stones, Frank Zappa, Chuck Berry and Bob Marley. Now, it is a building with an uncertain future, although currently occupied by the Universal Church of the Kingdom of God which has joined the development's original Methodist church of 1878, the Anglican church of 1888-9, St Thomas's, by Ewan Christian, and the more recent mosque of 1982-93, designed by Abdus Salam and funded largely by King Fahd of Saudi Arabia, as a site of fulfilment of the community's spiritual needs.

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Whilst the original, suburban domestic pattern survives, this is an area which is as much in a state of evolution as King's Cross, as social and economic forces result in population shifts and changes to the fabric of the buildings. Some of these are protected, but it is the great preponderance of the ordinary which gives this district its character. In looking for connections between buildings and areas, and mapping the web of relationships between ensembles, we are better able to understand the spatial and functional context of our historic and continuing environment. Some buildings clearly are significant as individual examples of a type or of an historical process; others gain meaning and importance only through association. In studying and documenting an ensemble and its ramifications within the structure of the core data index, we are better able to recognise the gaps in our knowledge and to identify those areas or buildings which need closer investigation if a fuller understanding of them is to be achieved. In considering the ensemble, we are able also to demonstrate that whilst the documentation and protection of individual buildings remains an obligation within our society, it is the much more elusive whole, easily subject to piecemeal erosion, which is often greater than the sum of its parts.

ACKNOWLEDGEMENTS

We are indebted particularly to the following for their contribution to the development of the Core Data Index: Dr Robin Thornes (formerly of RCHME), Monique Chatenet and Olivier Toche (Inventaire Général), and Daniel Therond (Council of Europe). We wish to thank Dr Artur Kostarczyk for his neat encapsulation of the basic ensemble issue - the need to know something about everything.

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