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Editorial

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The term 'heritage' has a great many connotations. The idea of heritage is closely associated with a country's history and, inevitably, with the idea of nationhood. Even when we limit its scope in this editorial to matters relating to the built environment, 'heritage' may apply to a monument such as Stonehenge, a medieval cathedral, a country house whose occupants had a noted place in history, a Tudor cottage whose occupants were of no particular significance, or a famous icon such as Tower Bridge or Paddington Station. Generally, in Britain at least, it has been the architectural profession that has concerned itself with the conservation of such structures. Nevertheless, engineers have been essential to the conservation of all the examples just given – including the Tudor cottage, whose timbers may have decayed and needed replacing, and whose foundations may have moved due to changes in ground water level.

Alongside structures considered to be of architectural heritage importance are two other classes of existing structure – structures of engineering heritage interest, such as certain canals, bridges, dams and dockyards of little or no interest to architectural heritage professionals, and structures that are of little interest to either engineering or architectural heritage professionals. This last group is the largest of the three since it includes the enormous numbers of old buildings, bridges and other structures that have been in daily use since they were constructed and, from time to time during their lives, have required maintenance, refurbishment and conservation in order to extend their useful life. Professional engineers probably devote more of their effort to this last category than to so-called heritage structures that have been judged to be of some historical and cultural significance. Nevertheless, the same engineering principles are used in conserving and extending the life of existing structures, whether of heritage interest or not.

Since the end of the nineteenth century, more and more organisations have been formed to address our architectural heritage. National heritage organisations such as Historic English and Historic Scotland are responsible for assessing the heritage significance of individual buildings and structures and 'listing' them according to their importance. The criteria used for the listing of structures are given on the websites of these and other national organisations (see http://www.historicengland.org.uk/listing/ and http://www.historic-scotland.gov.uk/historicandlistedbuildings). As a matter of simple fact, the vast majority of listed structures are buildings, not engineering structures such as bridges and canals. Nevertheless, since the 1950s, beginning with the emergence and growth of industrial archaeology as a discipline and field of practical activity and intervention, our engineering heritage has been gathering interest. The UK's national heritage organisations now embrace engineering structures, and a similar trend is occurring in Spain, Germany, France and Italy (for example). Beginning later this year, *Engineering History and Heritage* will be featuring a series of reviews of engineering heritage in different countries.

The last half century or so has seen a change of emphasis in dealing with heritage issues in the built environment. The focus used to be on individual buildings or structures, whereas now a structure or monument is considered in its wider context, both physical and cultural. The many UNESCO World Heritage Sites illustrate this. For example, the famous Ironbridge, built of cast iron in 1779, is not a world heritage structure – rather, the entire Ironbridge Gorge around Coalbrookdale is the heritage site (see http://whc.unesco.org/en/list/371). Similarly with Telford's Pontcysyllte Aqueduct, the UNESCO site is the Pontcysyllte Aqueduct and Canal (see http://whc.unesco.org/en/list/1303); the entire Derwent Valley from Matlock to Derby is the UNESCO site, not the individual cotton mills by William Strutt and Richard Arkwright (see http://whc.unesco.org/en/list/1030); and the whole village of Saltaire, rather than Salt's Mill built by William Fairbairn (see http://whc.unesco.org/en/list/1028). The Forth Bridge and its surroundings have only recently been submitted for recognition as a World Heritage Site and a decision is expected in the next twelve months.

At an international level, the International Charter for the Conservation and Restoration of Monuments and Sites (ICOMOS) has played an important role in establishing the principles according to which sites and structures should be treated during conservation and restoration. The organisation was originally formed to set down these principles and they appeared in 1964 as *The Venice Charter* (ICOMOS, 1964). This codifies internationally accepted standards of conservation practice relating to architecture and sites. It sets forth principles of conservation based on the concept of authenticity and the importance of maintaining the historical and physical context of a site or building. It continues to be the most influential international conservation document and states that monuments are to be conserved not only as works of art but also as historical evidence. It also sets down the principles of preservation, which relate to restoration of buildings incorporating work from different periods.

In 1996, some members of ICOMOS founded the International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage (ISCARSAH). This is a forum for engineers involved in the restoration and care of building heritage and organises regular congresses (see https://www.facebook.com/pages/ISCARSAH/263710868630). In 2003, ISCARSAH published a further charter of greater direct relevance to the work of engineers, setting out the *Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage* (ICOMOS, 2003).

Finally, among the international organisations concerned with engineering heritage there is The International Committee for the Conservation of the Industrial Heritage (TICCIH, verbalised as 'ticky'), which is the world organization for industrial heritage (see http://ticcih.org/). It promotes international cooperation in preserving, conserving, investigating, documenting, researching, interpreting, and advancing education concerning the industrial heritage; it, too, organises regular conferences (the next is in Lille in September 2015). Like ICOMOS and ISCARSAH, TICCIH has produced a charter – The Dublin Charter – that sets down the *Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes* (ICOMOS–TICCIH, 2011).

Without further comment in this editorial, I would make two observations about these heritage organisations – first, there are very few British persons actively engaged in their activities. Secondly, in the case of ICOMOS and TICCIH, perhaps because of the broadening focus on sites rather than individual structures, there are very few practising engineers involved: at the triennial General Assembly of ICOMOS in Florence last year, engineers were virtually absent, while architects, archaeologists, landscape architects, anthropologists, economists and sociologists were all well represented. We would welcome comments from readers on these matters.

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