Abstract

Four railway sites have been inscribed on UNESCO’s World Heritage List. Three are in India and the fourth is in Austria. I was the UNESCO consultant who assessed two of the Indian applications and I have visited the other two. Based on these experiences, this paper will examine the relationship between the UNESCO criteria for inscribing sites on the World Heritage List and railway heritage sites. There are important issues applying to railway sites which could scarcely have been anticipated when the World Heritage Criteria were drafted. These include the extent to which sites are representative of other sites; the importance of moveable items such as locomotives and rolling stock; the tension between inscription and the need to upgrade railway facilities for safety, efficiency and convenience in operations; the financial viability of inscribed railways; and, the extent to which restoration and conservation are in tension. This paper will raise the issue of how representative these four sites are of the railway’s role in history, and the problems of securing adequate recognition of that role through mechanisms such as World Heritage. It will concentrate on India, although its themes have wider application and are especially relevant to Australia, whose early railway history in particular has many similarities to India’s.

When Australia’s first steam railway opened on 12 September 1854, the conservative Melbourne Argus (12 September 1854) surprisingly reflected on the impact of the innovation for indigenous Australians:

We see the train flash past the gunya of the native black. And as he greets the wonder with his own loud ‘waht!’ he too listens with a vague terror to ‘the first scream’. Yes, listen, dusky fellow-subject, for there comes Christian England; the great, the powerful, the intelligent, the good! There comes Christian England who, if you were strong enough to demand a price for your land, would buy it of you, but as you are few and weak, and timorous, generously condescends to steal it. There comes Christian England, who carried many hundreds of tons of your gold without setting apart one ounce for you; who hands you over to be contaminated by the worst and lowest of her own people, to be taught their crimes, to be impregnated with their diseases; and who, while rapidly destroying you, cant in her churches and her religious meetings about doing by others as she would be done by! There comes Christian England, to absorb your hunting grounds, destroy your game, inoculate you with her vices, and shew her Christian spirit by dooming you to ‘extirpation’ … Rejoice, you dark-skinned savage, at the advent of your kind, magnanimous, and most Christian brother.

It was an analysis as perceptive as it was brutal. When we consider railway heritage and what is important in the history of railways in colonial settings, the role of the railway in helping destroy indigenous societies — their economy, their rhythms of life, their isolation — is often ignored. But it was nonetheless a real if unstated part of the colonial railway’s function.

Indigenous issues are part of railway history in colonial contexts and sometimes are relevant to the assessment of the heritage significance of railways as well. This is as true of Indian World Heritage sites, as discussed below, as it is of Australian railways. This paper compares and reflects on how Indians and Australians see their railway heritage and considers how important railway sites are selected. There are now four railway sites which have been inscribed on UNESCO’s World Heritage List. The first was the Semmeringbahn near Vienna, the capital of the Austrian Empire with its port of Trieste, now in Italy. The other three are all colonial railways (or at least parts of them) and are all in India. These are the Darjeeling Himalayan Railway in West Bengal; Chattrapati Shivaji Terminus (formerly known as Victoria Terminus) in Mumbai; and the Nilgiri Mountain Railway in Tamil Nadu. All four of these sites are elements of essentially ‘imperial railways’, conceived to serve the needs of now defunct empires.

There are important issues applying to railway sites which could scarcely have been anticipated when the World Heritage Criteria were drafted. These include the extent to which sites are representative of other sites; the importance of moveable items such as locomotives and rolling stock; the tension between inscription and the need to upgrade railway facilities for safety, efficiency and convenience in operations; the financial viability of inscribed railways; and, the extent to which restoration and conservation are in tension.

I was the UNESCO consultant who assessed the applications for the Darjeeling Himalayan Railway in 1999 and for the Nilgiri Mountain Railway in October 2004. In that role I was well able to understand the enormous official and popular passion for inscription of Indian railway sites on the World Heritage List. At first this appears curious. These railways, after all, were built almost entirely for the benefit of India’s British rulers. This was particularly true of the mountain railways, which served hill stations, regions with mild climates which the British used as sanatoria to escape the heat of India’s plains. They remain picturesque colonial survivals, with little contemporary social or economic utility. Their productivity is low, almost comically so in the case of the Darjeeling Himalayan Railway, which until recently was worked by 0-4-0 tank locomotives designed in the 1880s which hauled at best three tiny coaches up grades as steep as 1 in 19.

Both these Indian narrow-gauge mountain railways were constructed during the high colonial period of the late nineteenth century. The Darjeeling Himalayan Railway opened in 1881 and its most important traffic was rice from the plains
to feed the growing population of the Darjeeling district in one direction and tea grown in Darjeeling in the other. The Nilgiri Mountain Railway was completed in 1908 after many fits and starts. Both were innovative in their day and were solutions to previously intractable transportation problems. Both are unusual survivals from that era which have maintained their originality largely because resources were not available to modernise them. Both would never have been built after about 1920, because by then road transport offered a more economical solution to the difficulties of access to such locations. Thus, they are very much creations of the technology of their era. Both have avoided closure partly because of the unpalatable political consequences of doing so, even though they are loss-making and as transport links both are now of marginal significance.

In their heyday, both had very considerable social and economic impacts on the regions they serve. They have enabled the development of new industries, notably tea cultivation in both cases, and cordite also in the case of the Nilgiri Mountain Railway. Both led to radical changes in population. In both cases this involved the migration of large numbers of Indians from the plains to mountainous districts previously largely inhabited by ethnic minorities. The British, who could afford the pre-railway transport costs, visited the hills for recreation before the railways were built, but came in much larger numbers after they were completed. In both cases, the railways had political significance since they enabled the transfer of government during the hot season from the Presidency capitals of Calcutta and Madras to Darjeeling and Ootacamund respectively (as they were then known).

Thus, the social and economic aspects of the two railways are very similar. Both led to the dilution of indigenous populations by migrants from elsewhere. In the case of the Darjeeling region, this would lead to significant social unrest in the last three decades of the twentieth century and even the formation of a local ‘liberation movement’. The social qualities of the local Ghorkha people meant this was a serious issue, although the movement never targeted the railway, probably both because of affection for it and its diminished importance for transport purposes after about 1950. In terms of criterion ii of the World Heritage Operational Guidelines both ‘exhibit an important interchange of human values’ which scarcely differ in principles, although they do in details (UNESCO 2005).

However, there are greater differences when it comes to the technology used. Thus, they differ considerably in how they relate to criterion iv of the Operational Guidelines, whereby each is, in my opinion ‘an outstanding example of a … technological ensemble [within a] landscape which illustrates a significant stage in human history’ (UNESCO 2005: par. 77, pp. 19-20). These differences reflect both the period of construction and the resources available. The Darjeeling Himalayan Railway is basically a roadside tramway. It has no notable structures and was built extremely economically. Its unusual features, such as spirals and zigzags, were built because they required so little earthworks and hence so little expense. It was the first Indian mountain railway, built in 1880 and 1881, and so was experimental in nature. Very few other railways quite like this have been built anywhere in the world, for the simple economic reason that, although relatively cheap to construct, their operational costs are very high. It can only support light locomotives and has very steep grades, worked entirely by the adhesion of smooth steel wheels on steel rails, unlike the rack on the Nilgiri Mountain Railway. The result is that it can only carry very light loads, and then only at considerable expense. (There are many modern works on the Darjeeling Himalayan Railway. The most accessible original source is Darjeeling-Himalayan Railway Co. Ltd 1921).

By contrast, the Nilgiri Mountain Railway is an altogether more substantial affair. Its gauge is broader (at one metre instead of the two feet or 610mm of the Darjeeling Himalayan Railway), and it is on its own reservation throughout its length. It was built almost two decades after the Darjeeling Himalayan Railway, its most important section being opened in 1899. There are no roadside sections and only a handful of level crossings, compared with about 170 on the Darjeeling Himalayan Railway. It has thirty-two major bridges and no fewer than sixteen tunnels, compared with one major bridge and no tunnels on Darjeeling Himalayan Railway. Both climb to similar altitudes, about 2000 metres, but the Nilgiri Mountain Railway does so far more quickly and on steeper grades. It can do this because of its use of the Abt rack system. (The Abt system, devised by Roman Abt, a nineteenth-century Swiss locomotive engineer, is one of a number of rack or rack-and-pinion railway systems in which a toothed rack rail, generally positioned within the ‘normal’ tracks, is used in conjunction with one or more cog wheels or pinions fitted to a train enabling the train to operate on steep inclines.) It is this which makes the Nilgiri Mountain Railway so unusual. There are other Abt rack railways in the world (not many, and most of them in Switzerland and Austria), but none which is so original and authentic throughout, as explained in my evaluation report. It is also very big for a rack railway, with relatively large four-cylinder compound 0-8-2T locomotives and fairly heavy trains. (For a history and description of the railway see Bandhari 1984). This is quite a contrast to the Darjeeling Himalayan Railway, which is renowned for the miniscule scale of all its equipment.

Thus, in technological terms, the Nilgiri Mountain Railway differs from the Darjeeling Himalayan Railway in almost every detail. Although both are in India and both have similar social histories, as railways per se, they are quite different. Both are unique and have good claims to be inscribed on the World Heritage List, no matter in which country they are located.

Despite their colonial origins and continued colonial ambiance, public affection in India for these railways is enormous. This can partly be explained by the employment they generate. However, enthusiasm extends far beyond employees and those with a direct interest in their survival, such as hoteliers and tourist package operators. There was considerable press interest on both my inspection missions, even though UNESCO prefers such events to be quiet and unhampered by publicity.

However, enthusiasm for inscribing these railways on the World Heritage list went beyond the elites. The Todas are one of the five main tribal groups of the Nilgiri Mountains and remain a poor community. Nonetheless, they celebrated the coming of the railway in at least two songs dating from the early twentieth century. A French anthropologist, M. B. Ermereau, recorded one song in the 1930s, and another was performed for me during the inspection mission. The Ermereau-collected song about the railway in the 1930s compares the train to a buffalo, but lacks the poetry of the song performed in 2004, and is basically a list of the localities through which the train passes (Nara & Bhaskararao 2003: 46-47). The latter song reflects on the impact of the train on people’s lives and imagination:
O buffalo korerse [train], o beautiful young korerse, You were born one such as was not born, your birth invitation is something great. They have made you like a house with many sitting places and lamps lighted. They made the floor smooth as butter smeared; they have made shining reflecting walls. You have whistled the whistle of the wild dog. You have linked the hands [the compartments] like our Toda people linking hands in dance. Without eyes you have walked, as if you were looking with eyes; Without legs you have gone, as if walking with legs. You have been like the black bird flying to the nest; You have been like the white moth flying to the lamp; You have been like clouds rising through the sky; You have been like the ants walking over the ground; You have come like a snake; you have run like a river. You give comfort and protection to the hundreds of people [passengers] like an umbrella or a house. You have reared like a mother, you have reared like a father, the passengers. O you are beautiful and dark like a Nilgiri kapich flower. You have gone through the important and sacred places from Nilgiri to Coimbatore. Ootacamund, Fernhill, Lovedale, Tiger Hill, Pakasuan Hills, Coonoor, Mettupalayam, Coimbatore. O you are young and beautiful like our young and beautiful korerse buffalo.

The song loses its chant-like metre in translation, but the point is clear. The Nilgiri Mountain Railway had considerable cultural significance, and was welcomed by the people whose lives it would change so profoundly. All over the world the coming of the railway marked an end to traditional patterns of life, of land use and of economic relationships. Especially in colonial contexts, this was often socially destructive even if it simultaneously led to the creation of wealth and higher standards of living. Such tension, though, is not evident in the celebratory tone of this song. Few railways have led to the creation of such works, which reflect its cultural significance. This significance may not be unique, but it is representative, and it is also unusually striking and well documented.

Indians’ affection for their railways is perhaps the result of the fact that railways remain the main means of transport for most of the population. Railway employment retains its prestige and status, conditions are good, and people travel by long-distance trains in the millions every day. A high profile railway means that unusual railways are valued, even though they are colonial creations and hence Indian attitudes to them could be expected to be ambivalent or even hostile. If people value their railways, it would appear that they value their railways’ heritage as well. That is why Indians have sought, hitherto successfully, UNESCO World Heritage status for some of their more unusual railways.

Moreover, Indians’ admirable enthusiasm for nominating their railways for World Heritage Status continues. India plans to nominate three further hill railways as part of a serial nomination. These are the Kalka-Simla Railway, the Matheran Hill Railway and the Kangra Valley Railway. However, it is difficult to make a case that any of the three was innovative, and only Kalka-Simla could be considered an outstanding example: it certainly does have impressive structures, including over 100 tunnels and some unusual bridges.

Nominations are the affair of national governments, and India’s commitment to its railway heritage deserves applause. However, it would be a seriously imbalanced reflection of the planet’s railway heritage if the only railways on the World Heritage List were the five Indian hill railways, Mumbai Victoria Terminal, and the Semmeringbahn in Austria. In this context, the proposed nomination (in 2007) of two sections of the Rhaetian Railway in Switzerland is welcome. This is also a narrow-gauge (one metre in this case, the same as the Nilgiri Mountain Railway) mountain railway. One section (from Thusis near Chur to St Moritz) was engineered to high technical standards and includes impressive bridges such as the stone Landwasser and Stolis viaducts, three spirals, and the six-kilometre long Albula tunnel. The other section, over the Bernina Pass from St Moritz to Campolocogno on the Italian border near Tirano, was built more cheaply as a roadside tramway. Thus, it has lower technical standards (and hence a lower capacity in traffic terms) but even more scenic drama, including close proximity to two glaciers and a treeless landscape resembling Antarctica at its summit of 2250 metres (on the history of these two parts of the Rhaetian Railway, see two recent books: Camartín & Pfeiffer 1999 and Caprez & Pfeiffer 2000).

The Rhaetian Railway, in some respects at least, is typical of Swiss railways, despite its narrow gauge. The Thusis to St Moritz section can be seen as a St Gotthard route on a smaller scale; and its structures and intensity of traffic are comparable to those on Swiss standard-gauge lines. However, the Indian hill railways, while picturesque and attractive, are no more representative of important or typical Indian railways than, for instance, Puffing Billy is of Australian railways. This railway, in the Dandenong Mountains east of Melbourne, is easily Australia’s best-known and most used heritage railway. In fact, it is one of the three busiest heritage railways in the world. However, it is far from typical of railways with a significant impact on Australian history, and was always something of a backwater until its reincarnation as a heritage and tourist railway. In listing unusual railways of marginal wider significance, as has happened in India, there is a danger of losing sight of the more significant impact on humanity of more mundane railways. The tension between the spectacular and beautiful, and the important, is real. The mundane, while it might be important, never does attract much interest until it is gone.

It is disappointing that hitherto railway sites in Australia have not attracted the same esteem that they have in India, or even in Switzerland and Austria. The reason is easy to see — the difference in the status of railways as a whole in the various societies. Australia’s and India’s railways started at the same time and in some ways were very similar for their first half-century or so. Since then the railway history of the two countries has diverged. In India, as in Switzerland and to a lesser extent in Austria, railways remain at the centre of most people’s life experiences. The same is no longer true in Australia. It is scarcely surprising, in an era when train travel has become marginal except for the journey to work in the countries’ largest cities, that railways are not high in Australians’ consciousness as heritage sites. Despite this bleak reality, it is worth posing the question, what railway sites (and other transport sites for that matter) might we consider the country’s most significant?
I dared to attempt a tentative answer to this question when asked in 2003 to prepare a list of what I considered to be the twelve most important transport and communication sites in the country for the then Australian Heritage Commission. Some of these would be considered for World Heritage nomination. This list was supported by a longer list of some 84 sites from which the final twelve were extracted. (The state breakdown of the 84 was New South Wales 28, Victoria 18, Queensland 15, South Australia 10, Western Australia 6, Tasmania 6, and Northern Territory 1.) The twelve were (in alphabetical order):

The AWA Tower, Sydney
Bendigo Tramways
The Bradfield Scheme, Sydney
Carnarvon Jetty, Western Australia
Echuca Rail and River Interchange, Victoria
Goolwa-Victor Harbor Rail-River-Sea Interchange, South Australia
Kuranda Railway, Queensland
Overland Telegraph Station, Alice Springs, Northern Territory
Pichi Richi Railway, South Australia
Qantas Hangar, Longreach, Queensland
Ross Bridge, Tasmania
Western Descents of the Blue Mountains, New South Wales

This list naturally enough invites debate. There are some notable omissions, partly because it includes representatives from each state and from each transport or communication mode. For instance, by most criteria the Great North Road is a more important site than the Kuranda Railway, but it is in New South Wales not Queensland. Aviation sites combining interesting heritage and significant engineering are particularly difficult to identify. Half of these sites include a significant rail element. Some are located in a genuinely spectacular landscape. These landscapes are not necessarily primarily natural, and the concept of a cultural landscape, modified over time by human beings accommodating their needs, is relevant to a discussion of their value. Cultural landscapes are defined in the Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO 2005: par. 47, p. 14) as ‘the combined works of nature and man’.

Some are in landscapes profoundly modified by humans, such as urban environments. One (the Bradfield scheme) is partly underground, so there is no landscape at all, although another element of the same site is the Sydney Harbour Bridge, which is located in about as striking a cultural landscape as exists in Australia. When we Australians eventually come to nominate our transport sites for National or World Heritage status, we should seek to find balance and celebrate the important as much as the picturesque. Sometimes, largely because of the engineering imperatives imposed by landscape, they are the same.

Bibliography
Argus 12 September 1854.
Nara, T. & Bhaskararao, P. 2003, Songs of the Toda — Text, Translation and Sound Files, Endangered Languages of the Pacific Rim Series, Tokyo.