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The origins of transport museums in Western Europe

Transport museums are among the most numerous and popular of museums in Europe, but they are also widely misunderstood. Frequently they are dismissed as the products of narrow-minded enthusiasts obsessed with technology, full of unimaginative displays of over-restored vehicles reflecting at best a nostalgic view of the past. But the sector's historical roots are both deeper and more complex than is usually thought, and while exhibitions past and present are rarely beyond criticism, these diverse origins are reflected in a rich spectrum of interpretation. In their recent efforts to attract new and wider audiences, museums have concentrated on telling stories about the social effects of transport and travel. These displays have the potential to encourage visitors to reflect critically on the opportunities and challenges presented by transport in the past, present and future.

This article sketches the origins of public displays of transport in Western Europe. It was only after the Second World War that museums dedicated to one or more modes of transport became common. But transport collections date back at least as far as the early nineteenth century, and many of these became publicly accessible, either permanently or on a temporary basis, in industrial museums and at international and national exhibitions. The state often bore the major responsibility for these displays, which consequently tended to tell celebratory stories about industrial progress and nationhood. This was particularly true of mainland Europe, since governments here usually planned and directed the construction of transport systems. In the next century and at a more local level, municipal authorities often commemorated the tramways and other modes of transport which had enabled the dramatic growth of towns and cities. But commercial transport providers also had a part to play in marking transport's past. So too did private collectors, particularly when it came to celebrating non-mechanical forms of transport, such as horse-drawn carriages, as they became obsolete. The relative importance of these groups has varied considerably over time, from country to country and between modes of transport, making it very difficult to generalise. Voluntarism has always been important in Britain, for instance, and in recent decades the voluntary sector in the rest of Western Europe has taken more and more responsibility for saving and exhibiting transport artefacts.

Early origins – the great industrial museums

The great national museums have always told stories about a nation's sense of itself. From their founding in the late eighteenth century, these institutions displayed prized objects symbolising the dominance of humanity over nature, or that of one people over another. Sometimes museums marked the power of one part of society over another. Thus from the middle of the nineteenth century displays of royal carriages in certain European cities, such as Madrid, symbolised the monarchy's long and continuing reign.[1]

With the gathering pace of industrialisation, European countries adopted the machine as a measure of national achievement and a symbol of national identity, displaying key artefacts in technical or industrial museums. Such institutions, usually run by or in some other way closely associated with the state, often displayed vehicles and other transport artefacts as markers of progress and cultural superiority.[2] The oldest and one of the greatest of these museums, the Musée des Arts et Métiers in Paris, acquired as early as 1801 Cugnot's steam wagon of 1771, the first – albeit unsuccessful – example of locomotion. It is still there today, at the start of a recently refurbished transport gallery which – with occasional asides marking crucial technological contributions by other nations – traces French achievements right up to the collaborative European space launcher of 1997. The sight that now greets people at the culmination of their visit vividly expresses the reverential attitude towards transport that has evolved in France over the last two centuries. In the beautiful former chapel of the priory that is now the museum towers a huge steel structure. On this modern altar and on the chapel floor are arranged 20 or more vehicles, while several aeroplanes hang from the high ceiling above: icons at a shrine.[3]

The British state was slower off the mark, leaving private interests to mount the very first permanent celebrations of mechanised transport by displaying a few pioneering railway locomotives, starting in the 1850s. These machines had survived by chance or through the efforts of far-sighted individuals. Some very significant engines passed in the 1860s to the Patent Museum and thus came to be associated with the South Kensington Museum, a product of the Great Exhibition of 1851 and forerunner of the Science Museum, founded as such in 1909. These machines included Robert Stephenson's *Rocket*, winner of the Rainhill Trials of 1829, which sealed the future of steam locomotion; William Hedley's *Puffing Billy* of about 1813–14, an example of the cruder engineering of the railways serving the coal mines of northeast England (a replica is in the Deutsches Museum) (Figure 1); and Timothy Hackworth's *Sans Pareil*, another of the Rainhill competitors. The South Kensington Museum also started collecting ship models in the 1860s, and in time the Science Museum built up good, and in some cases excellent, collections of most forms of land, maritime and air transport. The aeronautical collection was refurbished some

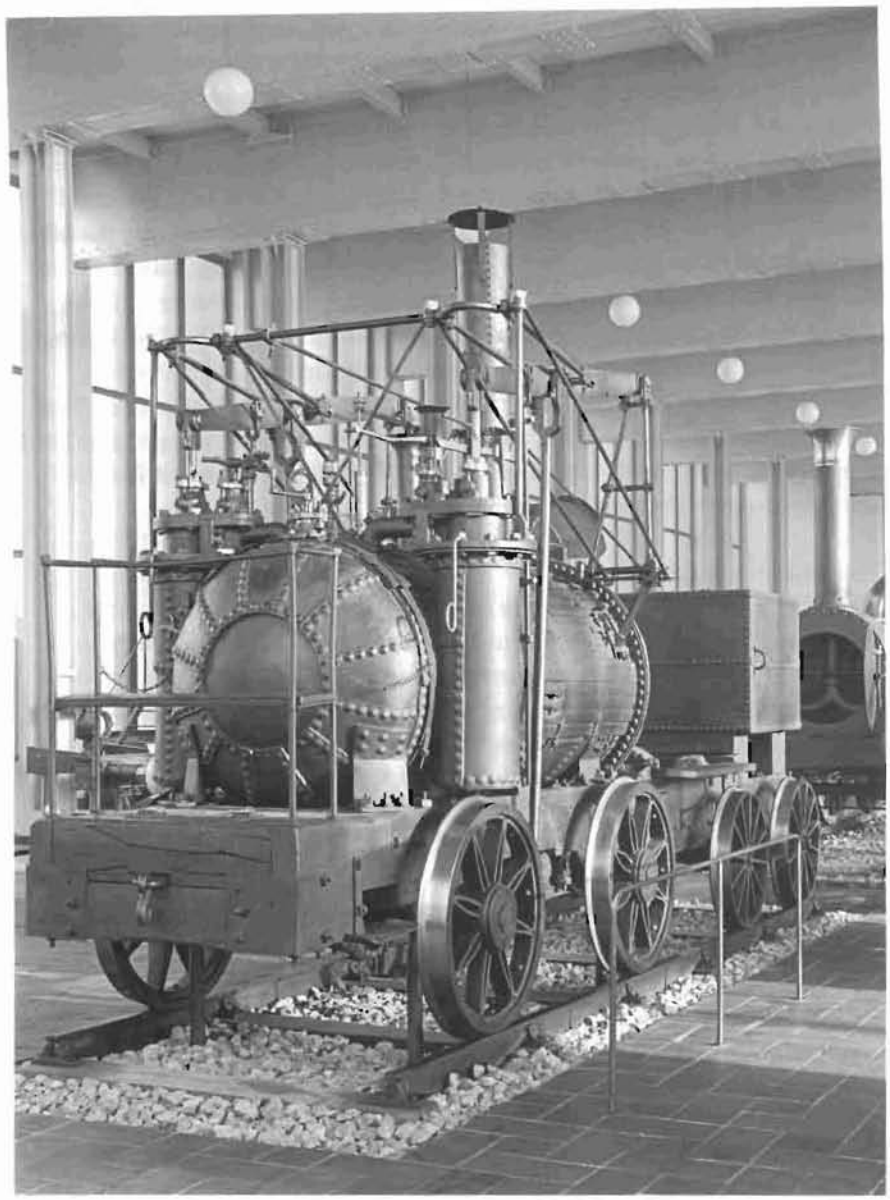

Figure 1 Replica of William Hedley's Puffing Billy locomotive. (Deutsches Museum)

years ago, but unfortunately the Land Transport gallery, opened in the 1960s, was closed some three decades later, although parts of the collection are still on display elsewhere in the Museum. The third of the triumvirate of great European industrial museums, the Deutsches Museum, built up a comprehensive transport collection from its founding in the first decade of the twentieth century. In both Britain and Germany these collections primarily reflected national achievements, although in varying degrees they also marked some of the most significant technological aspects of the international development of transport.[4]

These museums were all, in their rather different ways, initiatives of the state. But even so they could not have built up their collections without the foresight and assistance of private individuals or businesses. *Rocket*, for example, had been sold into colliery service in the 1830s and was presented to the state by the industrialist who had extracted another 20 or so years' service from the engine.[5] Indeed it seems likely that private gifts and voluntary initiatives were responsible for many of the transport artefacts collected by the state museums of Western Europe before 1939. In terms of the sheer volume – if not always the significance – of what is saved, such methods of collecting have almost certainly become even more important since 1945. Transport companies, engineers, antiquarians and enthusiasts all had, and still have, a part to play. Nowhere was this clearer than in the field of railways, from the 1830s until the 1920s the pre-eminent form of inland transport over any distance.

The railway legacy

The distinction of founding the very first transport museum open permanently to the public fell to Norway, where a small railway museum was established in Hamar during 1897. But Britain remains the natural starting point for any history of railway museums, since it was there that mechanically worked railways were pioneered and, arguably, the richest collections in Europe were built up.

Britain's railways brought huge social and economic benefits, as well as not a few drawbacks. The system was largely the responsibility of commercial interests, for until nationalisation in 1948 and with the brief exceptions of the two world wars, the state's involvement in railway administration was, by the standards of the rest of Europe, very modest. These private companies, sometimes cajoled by private individuals and societies of what would now be termed enthusiasts, saved some of the most significant transport artefacts of the nineteenth century and early twentieth century. I have already noted that railway relics were put aside from around the middle of the nineteenth century, if only in penny numbers. Apart from those engines that went into museums, a few of these now worn-out machines were displayed in places associated with their working lives. The most famous was Timothy Hackworth's *Locomotion*, built for the pioneering Stockton & Darlington Railway in 1825, which was put on a plinth in Darlington in 1857.[6]

The timing of these first efforts is notable. The 1850s marked the publication of some of the earliest railway histories, as well as the first of Samuel Smiles' famous if tendentious biographies of British engineers.[7] All of this signalled the popular elevation of railways and their technical specialists to something approaching heroic status. Railways, in short, were becoming part of Britons' sense of themselves as industrial pioneers and worldwide leaders in some of the most

important technologies of the industrial age – a feeling of easy superiority that nearly a century later allowed the English historian G M Trevelyan to proclaim that 'Railways were England's gift to the world'.[8] It seems likely that the railway companies were mindful of the benefits, in terms of what would now be called public relations and corporate image, of associating themselves with the industry's pioneering years. A particularly clear example was the North Eastern Railway (NER), which had absorbed the Stockton & Darlington Railway in 1863. In 1875 – a time when the railways generally were coming under increasing criticism – the NER, along with the local authority and other bodies, organised a Railway Jubilee to mark the fiftieth anniversary of the Stockton & Darlington. The festivities included a temporary exhibition of 27 locomotives, including *Locomotion*. Half a century later the NER's successor, the London and North Eastern Railway (LNER), would repeat the exercise on an even grander scale by including a cavalcade, and 50 years after that the nationalised British Rail's Eastern Region mounted yet another cavalcade.[9]

The international exhibitions of the latter half of the nineteenth and the first half of the twentieth centuries – and their more numerous but less-well-known equivalents organised on a purely national basis – were all important sites where technological patriotism intermingled with promotion of corporate image. Right from the start, with the Great Exhibition of 1851, these spectacles celebrated national achievements, tempering their partisanship but a little with professions of the universal benefits to be had from technology. As one of the engineering wonders of the age, the railways were almost always present, exhibiting their most modern achievements. But historical relics also had a part to play, demonstrating the native ingenuity of earlier generations and the progress that had been made since then. The railways continued to exhibit in this way well into the twentieth century. At the 1924–25 British Empire Exhibition, for instance, the LNER's display, 'The First and the Last', juxtaposed *Locomotion* with the then ultramodern *Flying Scotsman*. Such conjunctions were judged appropriate as late as 1951, when ancient and modern locomotives were displayed at the Festival of Britain, a national celebration signalling the beginning of the end of postwar austerity.[10]

The British railway companies were not persuaded of the advantages of a permanent museum until the mid-1920s, although the idea had been floated in the 1890s by antiquarians and enthusiasts. By the First World War such people had become more organised – the pioneering Railway Club was founded in 1899, followed in 1909 by the more narrowly focused Stephenson Locomotive Society (SLS). In the 1920s the SLS bought and restored the first locomotive to be privately preserved in Britain, inspiring similar action in other European countries. The engine was soon to find a place in the York

Railway Museum, opened in 1927.[11] But the founding of the museum was the product of more than enthusiasts' desires, important though these were.

Since the 1890s the railway companies had become a lot more sophisticated about corporate image. This was partly because they were subject to an increasingly strict regime of financial regulation by the state, forcing them to compete with each other in terms of quality of service and image rather than on price. Regulation also gave them a reason to band together in an effort to win over public opinion. The York museum had a small part to play in the process, which became particularly pressing after 1918 as road competition increased. The collection was started in the early 1920s by a middle-ranking official of the NER. But in 1923 the number of important railway companies was reduced by statute to just four, and this simplification of the industry made it easier to draw together material from across the country. By 1939 the museum had become the home of a modest collection of locomotives, rolling stock and small artefacts from across Britain. Some of these had been saved by senior engineers and other railway officials acting in a private or semiprivate capacity, suggesting they were motivated by professional pride or a strong sense of identification with their company. But once senior managers became involved the exhibition of these items inevitably took on a corporate dimension: the machines also functioned simultaneously as symbols of professional, industrial, regional and national identity, and perhaps more besides.[12]

The state took over the York museum and became more widely involved with the exhibition of transport in 1948, when the railways were nationalised along with the docks, inland waterways and certain road and urban transport operations. The newly formed British Transport Commission (BTC) quickly acknowledged that 'a well-placed, attractive, and properly managed British Transport Museum would be of material assistance in projecting the idea of an efficient national transport service', and that in addition to collecting engineering artefacts it had a responsibility towards 'the wider social and cultural heritage' of the transport under its control.[13] Eventually a Museum of British Transport was opened in stages from 1961, in a London suburb, although despite its name the museum covered only certain modes of inland transport. It closed in the early 1970s, along with the York site. The railway collections were transferred to the present National Railway Museum (NRM), which opened in 1975 as part of the Science Museum. This and subsequent changes to the NRM's administrative arrangements means that British Rail had, and its privatised successors have, no direct responsibility for the museum or its contents.

The exhibitions there now embrace elements of the railways' social history, and moves are afoot to include one or two of the most

important of foreign vehicles (a Japanese Shinkansen, or 'bullet train', was the first). Nevertheless, many of the artefacts are displayed in ways that help to sustain a patriotic view of technology. Perhaps the best example of this is *Mallard*, an extremely popular icon exhibited as officially the world's fastest steam locomotive. This achievement – which is challenged by some in Germany and was almost certainly bettered by the Americans – reinforces the sense of national pride in the country's railways that, as I have shown, dates back at least a century and a half.

In mainland Europe the most important museums were founded by national administrations, reflecting the closer involvement between state and railway. Industrialisation lagged behind that in Britain, and so, generally speaking, did the commemoration of railways. The pioneering Norwegian museum at Hamar was quickly eclipsed by something altogether more important in Germany, where the railways had played a crucial role in uniting the nation in the latter half of the nineteenth century. The Bavarian state government pioneered railway construction during the 1830s, and some half century later, in 1882, an exhibition of Bavarian railway equipment at the Nuremberg international exhibition excited so much public interest that the collection was kept intact and housed in Munich, although it was open only to transport workers, ostensibly for their education. A permanent home was then found in Nuremberg, and this time the public was admitted, from 1899.[14]

Something similar happened in Prussia. Although initially operated as commercial concerns, by 1882 all the main lines serving Berlin had been nationalised. These were prosperous routes and the railways enjoyed a high social prestige, deriving chiefly from the part they had played in national unification. All this helped the Prussian State Railways justify the establishment in 1906 of the Verkehrs- und Baumuseum (Museum for Transport and Construction) in a disused station in Berlin. Like that in Nuremberg, this exhibition was intended primarily for the technical education of railway workers, although the public was admitted from the start. In 1935, however, the artefacts were rearranged to tell more clearly a story of 'progress' culminating in the Third Reich. The museum closed during the Second World War, and although some of the historic collection remained in the building the museum did not reopen after 1945 because of the political difficulties of operating in the divided city. In the 1960s a group of enthusiasts started to lobby for a new transport museum that would embrace more than just railways and, eventually, in 1980, Berlin's municipal government agreed to establish this. The Berlin Museum für Verkehr und Technik (Museum of Transport and Technology) opened in 1983. Most recently it has been renamed Deutsches Technikmuseum (German Museum of Technology), and has also significantly expanded its transport galleries. The present exhibitions

do not shy away from addressing the railways' role in the darker side of twentieth-century German history.[15]

In most of the rest of Europe state and railway officials did little or nothing to commemorate railways until well into the twentieth century. Even Norway's modest memorial to the railways' unifying role closed in 1912 and was not reopened, on a new and grander site, until 1926. The first museum at Hamar had been the initiative of a group of railway officials, and in 1927 a similar arrangement encouraged the Netherlands State Railway to found a museum in Utrecht, where the railway had its headquarters. Other countries did little or nothing until after the Second World War, when modernisation threatened the destruction of much that had survived the hostilities. The completion of a new Nord station in Brussels in the early 1950s provided the location for a small museum; it is still there, the displays almost exactly as described in the late 1960s. In Italy the railways' contribution to national unification was arguably as great as that in Germany, but the Museo Nazionale Ferroviario (National Railway Museum) was not opened, in Naples, until well after 1945. Before this there was a much smaller display at the main terminus in Rome, the objects from which joined other land transport artefacts in Milan's Leonardo da Vinci Museum from the early 1950s.[16]

France serves as a more detailed example of the evolving relationship between public and private initiatives that has so often shaped national collections and their museums. Here the state was less closely involved with railways during the nineteenth century than in Germany, and, as in Britain, it was not greatly concerned about the preservation of material until after 1945. The private companies largely responsible for railway construction and operation showed little interest in a museum until after 1918, probably because their lines were themselves *un véritable musée vivant*. At around this time several locomotives dating back to the 1840s were put aside. None of this amounted to systematic collecting, though; as in Britain, much was left to local initiative at railway workshops or depots. Engineers' sense of professional pride inclined them to save items here and there in the face of managerial indifference.[17]

Private enthusiasts had a part to play as well, although it was not until 1929 that a newly founded group, inspired by the SLS in Britain and similar bodies elsewhere in Europe, started to lobby for a systematic programme of preservation with a museum as an eventual goal. The twin threat of growing competition from other modes of transport and modernisation of the railways – and particularly of the steam locomotive – spurred this action. Some significant artefacts were put aside, but much was lost before 1939. Although the French railways were nationalised in 1938, as SNCF, the Second World War and then a lack of finance in the war-torn country prevented any significant moves towards a national museum for a long time.

In the 1950s local initiatives by railway workers and engineering managers, encouraged in some cases by private societies, helped save more locomotives as wholesale modernisation proceeded. Gradually a preservation policy focusing chiefly on locomotives evolved within the engineering side of SNCF, but it was not until the mid-1960s that such moves were sanctioned at the highest level of the railway's management. Thereafter, the tide turned in favour of establishing a national museum. In 1969 the Ministry of Transport and SNCF agreed with the city of Mulhouse to place the collection in a museum provided by the local and regional governments. The latter saw the initiative as an important contribution to the economic regeneration of a region devastated by industrial decline, a motive which has characterised many proposals for transport museums in the last two or more decades. Opened on a temporary site in 1971, the Musée Français du Chemin de Fer moved to a permanent building in 1976. Recently, however, the museum has experienced difficult times, largely because it has not attracted enough visitors to satisfy the financial imperatives of the municipal authorities.[18]

So far I have dealt with just a handful of the most important railway museums in Western Europe. Railway employees or private individuals were often responsible for starting the collections that lay at the heart of these institutions, but the involvement of state railway administrations, private companies or governments at national or regional level was needed before permanent museums were founded. However, since 1945 and particularly since the 1960s, there has been a tremendous upsurge in interest across Europe in what private citizens, either individually or in groups, can do to preserve and display railway material – particularly, although by no means exclusively, in operating condition. In this brief essay I can do no more than note the phenomenon, and remark that it seems to be associated with a desire to commemorate the passing of a once-common form of everyday transport.[19] In this regard railway enthusiasts are no different in their motivation than an earlier generation of private collectors interested in preserving other, nonmechanical forms of transport.

The legacy of other inland transport

I do not know of any museum dedicated to the commonest and most egalitarian form of transport – walking. But there are some splendid collections of animal- and human-powered vehicles, many of which originated in an impulse to save reminders of folk and aristocratic customs threatened by industrialisation – or, more strictly, mechanisation, for animals remained a common source of motive power for some purposes well into the twentieth century. The folk dimension to this movement found its greatest success first in Scandinavia, in the last quarter of the nineteenth century, before spreading elsewhere in Europe (and North America); the preservation

of aristocratic and monarchical material had even deeper roots, as I have already indicated. Dedicated carriage and wagon museums often originated in the collections of wealthy philanthropists, for this mode of transport has rarely been the domain of the sort of large company that might have thought a museum a worthwhile investment. (An exception is the Studebaker Brothers Manufacturing Company, in 1900 the largest wagon manufacturer in the world; but the company's fine collection is located in the United States.) A good example is one of the best collections in Europe, the Tyrwhitt-Drake Museum of Carriages in the south of England, built up after the First World War by the wealthy individual whose name it bears. The material gathered here covers almost the whole range of vehicles that are not mechanically propelled, although there is a tendency, regrettably common among transport collections of almost every kind, to downplay the mundane and everyday.[20]

Navigable waterways predated industrialisation and then evolved in tandem with the industrialising economy. Many, particularly the narrow-beam canals of Britain, remained animal-worked until well into the twentieth century. There are few museums dedicated to them, however, and most of these are comparatively new. Some of the reasons for this are not hard to fathom. Although of great importance in the late eighteenth and early nineteenth centuries, canals and navigable rivers were eclipsed by railways in Britain and mainland Europe, except in those few areas such as the Netherlands, Belgium, north-east France and the Ruhr where circumstances favoured ships or large barges. Thus corporate interests of the kind that helped to underpin early railway preservation in Britain were virtually absent. And since inland waterways did not unify nations in the same way as the railways, they did not attract the same levels of public interest or state support for their commemoration. Folklorists were not interested in canals and river navigation until the 1930s or 1940s, perhaps because waterways were still associated with the grimmer side of industrialisation, and perhaps too because it was only then that the real threat to ways of life going back 150 years or more became apparent.

Commemoration thus came only after 1945, with Britain taking a pioneering role. The first European museum to concentrate exclusively on inland waterways opened in 1963, in a converted canal warehouse at Stoke Bruerne in the English Midlands. It was run by the British Waterways Board, an arm of the state, though the museum would not have been founded but for the intense political lobbying of waterways enthusiasts in the 1950s. It was part of a reorientation of the commercially moribund network of narrow canals towards leisure use. Such has been the success of this policy that there are now 11 waterways museums in Britain, including a National Waterways Museum which embraces the original development at Stoke

Bruerne as well as two more recent initiatives. Both of these involved partnerships with local government, which wished to see economic benefits from the rejuvenation of derelict land and buildings.[21]

Most other museums of inland transport concentrate on mechanically powered vehicles, although some (museums of urban public transport come to mind) trace a lineage back to the days of – quite literally – horse power. Similarly, motor museums often display bicycles (Colour plate 7) as one of the technologies that contributed to the evolution of cars and motorcycles. Personal motor vehicles were exhibited very early on, reflecting their high social esteem and rapid rate of technological obsolescence. Temporary exhibitions of 'historic' motor cars (the oldest was then barely a decade old) go back to at least 1909, when a display was mounted as part of the Imperial International Exhibition at London's White City; one of the vehicles passed the following year into the care of the Science Museum, the first in an important collection. But the earliest institutions with sizable collections of motor vehicles are as varied in their origins as other transport museums. The first in Europe, the Musée National de la Voiture et Tourisme at Compiègne, France, was opened in 1927 by the state. Other important European collections were started between the world wars, or even earlier, by private individuals or manufacturing firms, although many were not opened to the public until the 1950s or later (Colour plate 8).[22]

Private collectors were often passionate and idiosyncratic in their choices, and these characteristics can often still be detected in modern museums. One of the most important is the National Motor Museum in the south of England, originally the Montagu Motor Museum, a private affair opened to public viewing in 1952. The initial collection of just five cars was displayed as a tribute to the owner's father, a motoring pioneer. The present building, dating from the early 1970s and partly paid for by the European motor industry and private subscribers, contains hundreds of vehicles reflecting British motoring from 1895 to the present, rising to a climax in the achievements of speed record breakers. As with so many such collections, there is something of a bias towards the glamorous and unusual, and neglect of the mundane.[23] But none can compare in this respect with the most spectacular motor exhibition in Europe, the Musée National de l'Automobile (Collection Schlumpf) in Mulhouse, France. This collection, finally opened to public view in 1982, was built up by a pair of wealthy industrialists who were passionate about Bugattis and other famous marques of a sporting or luxurious kind.

Here the regional government played a large role in securing public access, and something similar was quite common in Britain in the 1950s and early 1960s. The reasons were different, however. Municipal museums in the famous motor-manufacturing cities of Coventry and Birmingham exhibited locally-made vehicles, many of which had

been privately collected. The displays helped the postwar generation understand their cities' role in twentieth-century industrialisation.[24]

Elsewhere in Western Europe manufacturers' museums have helped with the same task – Munich's BMW Museum is an excellent example – as well as acting as a form of corporate memory. Indeed, corporate collections form the backbone of some of the oldest motor museums outside North America: Germany's Daimler-Benz Museum opened in 1936 with a collection dating back to the late nineteenth century and which had first been exhibited in 1911. Other corporate collections are as old, although few were put on permanent public display until after 1945. The richest in Britain is at the Heritage Motor Centre, opened in 1992 on its present rural site some little distance from the motor-manufacturing areas of the West Midlands; the collection was built up over decades by the numerous companies that became the Rover Group.[25]

It is easy to understand the fascination of private citizens with motor vehicles, since these have always been marketed as much in terms of social prestige as for their practical utility. Nor does it take much imagination to see the benefits to motor manufacturers of preserving and exhibiting their own products. Other kinds of road transport have never attracted quite such widespread esteem – even today, commercial vehicles, taxis and buses play only a small part in most motor museums. Nonetheless there are many museums of public passenger transport across Europe.

Public transport played a part in the expansion of towns and cities from the nineteenth century, making possible the spread of suburbs with their separation of residences from workplaces; trams (Colour plate 9), buses and local trains remain powerful and highly visible markers of civic identity in many European cities. It is therefore not surprising that municipal authorities, often cajoled or helped by enthusiasts, have played a large part in preserving public transport vehicles. Some of these collections date from well before 1939. This timing reflects the obsolescence of the electric vehicles at the core of many collections – trams started to disappear in some European countries from the 1920s, and even in those places that retained them modernisation took its toll of early vehicles. Munich, for example, has a comprehensive collection of tramcars built up by the transport authority over many decades.

Yet few transport authorities now seem willing or able to invest much in displaying their collections imaginatively. The Munich collection, still publicly owned, is cared for in a redundant depot by a society of enthusiasts and employees acting in a private capacity – but sadly it is not accessible, although the potential for a splendid museum of urban mobility and everyday life is there. The situation in Copenhagen is a little better. The city had one of the earliest and most comprehensive systems of municipally controlled public transport in

Europe, but the transport authority's collection of trams, buses and trolleybuses is crammed into a small hall attached to a suburban bus depot. Displayed like this the vehicles will never excite much interest, except among aficionados. But there are exceptions. The London Transport Museum, opened in the early 1970s, relocated in central London in 1980 and comprehensively redisplayed in the mid-1990s, is by comparison generously financed by London's transport authority. It is one of the finest museums of urban transport in the world, telling rich, multifaceted stories about not just public transport but also the great city that would stop without it.[26]

Elsewhere enthusiasts have made impressive contributions to saving and displaying urban transport. Museums with extensive collections in Vienna and Frankfurt, for instance, owe their existence largely to private societies. Indeed, the world's first dedicated streetcar museum (the Seashore Trolley Museum in the United States) was started in 1939 by such a group. It quickly developed into a working line, satisfying a desire for operation that I have already noted is widely found among railway enthusiasts. The success of the American enterprise inspired a similar initiative in Britain, where the rapid disappearance of city systems meant that there was little opportunity to emulate the practice still quite commonly found on mainland Europe, i.e. operating in the streets. The Tramway Museum Society, incorporated in 1955, dates back to the acquisition of a single tram in 1948 and a limited tramcar operation started at what is now the National Tramway Museum in the early 1960s. It is now arguably the most impressive tramway museum in the world, not least because it places the development of tramways firmly in the context of urban politics and living.[27]

Still, even this admirable museum betrays its origins. Tram enthusiasts wished to celebrate a type of vehicle heading for extinction in Britain, and the public transport successors to the tram – the motor and trolleybuses – were under no circumstances to be admitted. With the passing of time, and perhaps too with the resurgence of tramways in Britain, this policy has eased a little so that now a bus may be found sharing the museum's roadway on special occasions. But the general problem remains one faced by all sites dedicated to just one mode of transport: very few, if any, forms of transport entirely banish their rivals, and it is hard to tell histories of intermodal competition, or for that matter cooperation, in the single-mode museum. True, several European museums embrace several – but scarcely ever all – kinds of transport. Of the postwar examples, the Verkehrshaus der Schweiz (Swiss House of Transport and Communication) at Lucerne, opened in 1959, is the most comprehensive. Yet even this important institution separates the various modes so that the whole museum hardly adds up to any more than the sum of its often-impressive parts.[28]

The legacy of maritime and air transport

My final two categories of transport are a little different in that they are capable of overseas communication. The earliest maritime museums date from the nineteenth century, air museums from the interwar years. Their legacy is mixed, reflecting the many and varied uses to which the sea and air have been put.

Early displays of artefacts in state-sponsored maritime museums often embodied narratives of the European domination of other peoples, defining this in terms of the 'civilising' benefits of progress. Until the last century, control of overseas dominions depended entirely on maritime technologies – at first sailing ships and then the steamship, which first emerged as a practical tool for long distances from the 1860s. So these vessels, or, more commonly, models of them, became symbols of Western power. Not surprisingly, early maritime museums often betrayed a strong connection with naval affairs. A good example is Britain's National Maritime Museum. Although the museum did not open in anything like its present form until 1937, its origins lay in naval collections dating back to the early nineteenth century which had been assembled into a Naval Museum in Greenwich in 1873.[29] In 1999 the museum tackled this naval–imperial legacy in a critical manner by mounting an entirely new, and somewhat controversial, exhibition based on modern historiography.

At least one early maritime museum was directed more towards the display of state power in a domestic context. The core collection of the modern Portuguese National Maritime Museum was founded by the monarch as a naval academy and maritime museum in 1863, featuring 'the archives of glorious relics' – chiefly ceremonial royal barges. Despite Portugal's long history as a commercial and naval maritime power, this early collection seems to have had little to do directly with overseas trade or colonies.[30]

The commemoration of pre-industrial folk customs associated with fishing, whaling and other trading activities contrasts sharply with such displays of state power. One of the earliest examples in Europe was the tiny Museum of Fisheries and Shipping, opened in Hull, England, in 1912; it included displays on whaling (a local industry until 1868) as well as ship models, marine paintings and navigation instruments. Elsewhere, museums at Elsinore, Gothenburg and Stockholm followed before the First World War, displaying artefacts drawn from merchant shipping, shipbuilding and maritime folklore.[31] In the last 20 years or more this kind of museum has grown both in number and popularity, reflecting the public's near-insatiable interest in the history of everyday life. Now however, museums as often as not commemorate maritime activities that were originally carried out on a small scale, were then industrialised and are now threatened by economic or environmental problems. A British example is the National Fishing Heritage Centre at Grimsby.

The Vasamuseet in Stockholm (Colour plate 10) suggests what can be achieved in communicating about the history of a society through maritime artefacts.[32] The *Vasa* was a seventeenth-century warship which sank in 1628 and was raised in 1959. The impact of the display, which dates from around 1990, is amazing. One enters a relatively dark space to be dwarfed by the restored vessel. The ship and the achievement represented by its conservation and presentation are at first overwhelming. But it is the careful interpretation that continues to impress. One can take just so much of the spectacle of this wonderful vessel – yet whenever one turns away it is to find another smaller-scale but nevertheless engaging display that interprets some aspect of the wider story. There is a constant interplay between the object and these supporting narratives. The visitor is bounced continually to and fro; first captivated by the vessel itself, then turning to a smaller display that answers some questions but – at the same time – encourages the visitor to return again to the vessel to confirm new knowledge or test out learning.

Like other ship recoveries, the *Vasa* has yielded up large numbers of small objects, each of which contributes through its own fascinating story to the wider historical themes of the exhibitions. But the *Vasa*'s display offers powerful lessons for other types of transport exhibition. Most transport collections include supporting material beyond the vehicles themselves, but what is striking about the *Vasa*'s supporting displays is partly their variety – some object-rich, some multimedia or conventional film, some computer-based interactive. Each, however, uses the *Vasa* and its context to illuminate another aspect of seventeenth-century life. And herein lies the real achievement, for the visitor leaves with some understanding not just of seventeenth-century ships; international politics, mercantile trading patterns, shipbuilding skills, life in early modern Stockholm – all are revealed through the medium of the *Vasa* and its supporting material. In so doing, the object transcends its reality as a transport artefact and becomes a window on the wider world of the past.

The legacy of early aviation museums offers similar challenges to those of the maritime sector. This is scarcely surprising, for after the 1914–18 war all the major European powers cloaked civil aviation with the same mantle of nationalistic and imperial fervour they had previously reserved for their naval and merchant marines. National flag-carriers – Imperial Airways, Lufthansa and so on – were set up partly to resuscitate and prolong empires, and to defend and extend national spheres of influence in the European arena. Public enthusiasm between the world wars was fired largely through the adventure and technology of powered flight: sporting events such as speed and endurance trials satisfied the public thirst for spectacle that in the previous century had been satiated by exhibitions, expositions and museums.

This helps to explain why aviation museums did not appear in any number until after the Second World War. Nevertheless, by then state institutions had already started to commemorate the pioneering machines and military forebears of civil powered flight. The Musée des Arts et Métiers, for example, had, and still has, Clément Ader's extraordinary bat-like machine of 1897, which for very many years was displayed as a device that had been successfully flown; the claim is now much weaker, but does not entirely abandon French priority in this regard. The Musée de l'Air on the south-eastern outskirts of Paris (Colour plate 11) was the first institution in the world dedicated to the permanent exhibition of aircraft (the Smithsonian Institution had opened its first display a year earlier). Its collection goes back to 1919 and was opened to the public in 1921; the displays were wholly of a military nature, although now they embrace the gamut of aviation.[33]

The few private collectors of this period also tended to share the wider public interest in military and sporting endeavours. In Britain, for instance, the Shuttleworth Collection – started by Shuttleworth himself as a purely private venture and opened to the public as his memorial after the Second World War – includes many significant, and flyable, aircraft dating back to 1909. But ordinary passenger or freight carriers, even of small dimensions, are neglected; by way of compensation the museum's site, a small aerodrome, happily recalls the modest infrastructure needed by all aeroplanes in the 1920s. Since the Second World War private societies have set up several aviation museums at old airfields, although most of these, at least in Britain, have a military orientation.[34]

Business interests do not seem to have been involved in the early commemoration of flight, and nor are they greatly so today. The corporate museum of aircraft is almost unheard of, although Boeing has one in the United States. Like industrial-scale shipbuilders, aircraft manufacturers do not sell directly to the public (light planes aside), while the purchasers – that is, airlines – are unlikely to be impressed by the existence of a museum. Of course, experimental or prototype aircraft of great technological interest may be donated to an appropriate museum, and when there is a strong nationalistic dimension then considerable efforts may be expended on displaying the artefact. The British prototype of Concorde, a powerful symbol in the 1960s of state support for high technology, had in effect a new branch of the Science Museum created around it. By contrast the Zeppelin Museum, opened in Friedrichshafen, Germany, in the mid-1990s, lacked a complete example of its historical subject. Nevertheless the museum was sponsored heavily by the modern Zeppelin company; perhaps it thought that the airship's niche market might grow if the public was made aware of the technology's environmental and economic advantages.[35]

Commercial airlines are no more interested than manufacturers in commemorating the history of flight, probably because their markets are so dispersed. A museum in any one country can only appeal to a tiny fraction of the international clientele. Even now the minimum viable length of haul has fallen to just a couple of hundred miles, airlines seem no more convinced than most other modern transport operators that money spent on a museum is a worthwhile investment in terms of corporate image or memory. However, a few European airports – Frankfurt is an example – do have small displays as a diversion for waiting passengers.[36] It will be interesting to see what happens when the aviation industry comes under greater scrutiny as issues such as congestion and environmental damage rise up the political agenda. Perhaps then European airlines, airports and manufacturers will feel that it is in their interests to do more to mark the history of commercial flight.

Concluding remarks

This essay can do no more than indicate the rich variety in the origins of transport museums and their collections (Colour plate 12). Indeed, there is a good deal of scope for further research in this area, and I should not be at all surprised if it reveals an even more complex picture than the one sketched here. The main players will probably prove to be the same – the state (both national and local), businesses, professional groups, private citizens and their enthusiast societies – but different and changing historical circumstances have no doubt generated myriad forms of cooperation, competition and even indifference in the gathering and exhibition of transport artefacts.

What then of the narratives or stories told through artefacts when they are displayed? I have made the perhaps rather obvious point that in very broad terms it is possible to see links between the kinds of bodies or individuals responsible for museums, the wider historical context, and the content of exhibitions. But this needs to be qualified. Quite apart from the fact that one will always be able to find exceptions to the normal pattern – perhaps a corporate museum that gives significant space to the contributions of the labour force – there remains the problem that it is very hard, perhaps impossible, to know what contemporaries made of what they saw. This is an issue even today, for there is little research on what, if anything, modern visitors learn from transport exhibitions – the critic might 'read' artefacts one way while members of the public do so in another. At the very least then, a greater sensitivity is needed towards the needs and desires of the 'consumers' of transport exhibitions, past, present and future.

It is of course impossible to know in advance what such research will reveal. Still, it would be surprising indeed if citizens in the increasingly sophisticated consumer societies of Western Europe did not demonstrate a high level of interest in the kinds of choices open

to transport users in the past, as well as in those faced by us all as we are forced to confront the worsening problems caused by our apparently insatiable appetite for transport. If I am right in any of this, then transport museums are entering another important phase in their evolution; it certainly seems to be the case that new exhibitions are incorporating consumer perspectives. The irony is that, whatever its origins, when a transport museum succeeds it ceases, in a sense, to be a transport museum: it becomes instead a place where transport melds with the rest of society and some of the most pressing political issues of historical and modern society may be informally debated.

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