

## Appendix 5

### The International Development of Railway Stations

In the United States in the 1830s and 1840s, the railroads linked port cities on the east coast to outlying areas. There were a large number of railways built in the 1830s in the USA. Just as in England, there was a competitive rush to dominate the transport infrastructure. Britain developed an international business in railways and the North American railroads were initially reliant on British steam locomotives, supplied by Stephenson Works. Even rails were largely imported from England until the Civil War (1861).

The development of railway architecture evolved in a symbiotic way with truly international collaboration based on commercial interests. Thompson is considered to be one of the first 'international' architects. The stations designed by I K Brunel for the GWR, for example (Bridgend – 1850, Charlbury - 1853 and Pantyffynon - 1857) have direct parallels in the stations of the North American railroads of the 1840s and 1850s. However, the widespread use of cast-iron canopies in the UK is not generally found in North America. There are, however, striking parallels in the use of moulded horizontal bearers, forming an integral canopy, that at Pantyffynon extending around all sides, as in the contemporary American examples.

#### Europe

In Europe there were also a number of early railways, developed in the 1830s. In Germany, development of railways was at least 5 years behind England<sup>1</sup> and although railways were mooted in the early 1830s, these lacked the ambition to connect major cities. The "Ludwigs-Eisenbahn" (Bavarian Ludwig Railway) linking Nuremberg and Fürth, was the first steam-hauled railway to open in Germany in December 1835, using a steam engine and a driver supplied by the Stephenson's works. Both Fürth and Nuremberg stations were demolished in the twentieth century.

The first state railway connected Braunschweig with the Harz mountains - Duchy of Brunswick State Railway of 1838 (30 km). On 31 October 1841 the line to Bad Harzburg via Vienenburg was completed. The Vienenburg station opened in 1840 on Hanover territory and is today the oldest railway station in Germany which is still in use. Built from 1838 to 1840, the entrance building consists of an elongated, approximately rectangular building (the central section is slightly set back from the building line) with two storeys and a tiled hip roof. The stone building has 13 window bays and two central doorways on the ground floor, which give access from the station forecourt via the waiting room to the main platform.

All the other railways connected nearby cities:

Berlin and Potsdam of 1835-38 (25 km),

Leipzig and Dresden of 1838-39 (120 km). The original stations, of which there were few, were either replaced or re-located as economics demanded, and there are none surviving.

Taunus Railway (Frankfurt/Main to Wiesbaden) of 1839 (40 km), which contains the original 1839 Station building at Flörsheim (Main) station, designed by the architect Ignaz Opfermann but this has been significantly altered.

Dusseldorf and Elberfeld (Wuppertal) of 1838-41 (30 km),

Munich - Augsburg of 1840 (70 km),

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<sup>1</sup> 'The Development of the German Railroad System', G. Wolfgang Heinze, Heinrich H. Kill, 1988, in *The Development of ~Large Technical Systems*. (Schriften des Max-Planck-Instituts für Gesellschaftsforschung Köln ; 2). Frankfurt am Main: Campus Verlag, pp. 105-134.

Magdeburg - Leipzig of 1838-1840 (110 km),  
Mannheim and Heidelberg (20 km),  
Cologne - Aachen of 1841 (70 km),  
Hamburg and Bergedorf of 1842 (20 km).

In Austria – the Emperor Ferdinand Northern Railway was started in 1837 from Floridsdorf to Deutsch Wagram. Wien to Gansemdorf was undertaken in 1838, Gansemdorf to Lundenberg in 1839 and Lundenberg to Brunn in 1839.

Belgium was the second country in Europe to open a railway and produce locomotives. Unlike England, the state took the initiative in Belgium. The first line, between the cities of Brussels and Mechelen, opened in 1835 and George Stephenson travelled on the first train and the Stephenson Works provided the first three locomotives. There are no surviving original stations on this route. More study is needed to determine whether there are any early surviving stations pre 1842 in Belgium.

In France, although the first railway was established to move coal from the fields around St. Etienne, it was only from 1842 when the government agreed under the Thiers Plan to contribute to a national railway system that railways really developed meaningfully. The first line to be built specifically for passenger traffic, and the first to serve the capital, was the Paris – St Germain, which opened in 1837. In 1842 Britain had 1,900 miles of railways in operation; France only 300.<sup>2</sup>

### The USA

In the USA, the Baltimore and Ohio Railroad was the first passenger and freight railway line established in 1827, the first section of which opened in 1830, a 13-mile railroad from Mount Clare, Baltimore, to Ellicott's Mills (now Ellicott City). In August of that year the first American locomotive 'Tom Thumb' made its debut run on the same route taking one hour 15 minutes.

Ellicott City Station in Howard County, Maryland, (1830) is the oldest surviving rural railroad station erected for the Baltimore and Ohio Railroad<sup>3</sup>. It has been preserved as a working museum. The structure changed over time. The building was originally designed as a depot station (not intended for passengers), with a simple granite block and may have had a projecting canopy to the platform but was embellished during two phases of remodelling in 1857 and the 1880s, when it was adapted for passengers. It was in the 1880s that the elaborate scrolled bracketed eaves were added along with decorative margin-light glazing. The building was also re-designed internally to accommodate a Ladies Waiting Room (E. Mosher, Howard County Department of Recreation and Parks, Columbia, Maryland).

<https://www.howardcountymd.gov/Baltimore-Ohio-Station-at-Ellicott-City>

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<sup>2</sup> Georges. Lefranc, "The French Railroads, 1823-1842", *Journal of Business and Economic History* (1929–30)

<sup>3</sup> Mount Clare Station has claimed to be the oldest railroad station in the United States, as identified by Professor Meeks in 1956, but that title in fact belongs to Ellicott City. The station building at Mount Clare, which has a Georgian simplicity, with polygonal elevation and projecting eaves cornice (considered to be a pioneering design), has been surrounded by later railway development, so its setting has been significantly altered. However, a recent discovery puts the date of the station to 1851 when it was described as a "small passengers lodge", not 1830. This article also explains that the original roof covering was tin and that it had bracketed eaves (Herbert J Harwood 'Railroad History', No. 139 (Autumn 1978) pp. 39-53).

The United States Dept of the Interior – National Register of Historic Places – states that, “Some early American stations were extremely plain and essentially astylistic, but as early as the 1830s and 1840s, many were being built in a variety of popular, picturesque, and exotic styles. The reason for the choice of “exotic” styles seems to have been to give railroad buildings more than a utilitarian appearance and to create a picturesque effect in the landscape” (West Brookfield, Massachusetts)

The rural stations of the USA share common themes: usually single-storey, often timber and boarded (vertical and horizontal), with broad, overhanging eaves, supported by angled brackets, occasionally tilted eaves, with shallower profiles to the overhang, and an overhang around the whole building, to weather-protect travellers. The same details appear on the stations across the USA and Canada and have that pioneer spirit and temporary nature. From the earliest surviving building of the early 1830s to the buildings of the 1840s, which share the same family of details, there is a strong unified form.

During the 1830s other railroads began operating at several locations in the eastern United States. 1835 marked the inauguration of New England's first railroad service. In that year, three railroads began establishing routes between Boston and other important towns. The first was the Boston & Lowell Railroad. The first Boston and Lowell Railroad Station at Lowell Street, Boston (dem), was built to look like a Greek temple, a two-storey pavilion, with arched ground floor arcade and a gable-fronted bracketed eaves with central chimney stack, heavily influenced by classical Georgian architecture. It had similarities with town halls and market halls of the period. From 1830 adaptations of the classical temple form of Greek architecture appealed to Americans, who associated it with the democratic ideals of Ancient Greece.

It was quickly followed by the Boston & Providence and the Boston & Worcester railroads. In 1835, the Boston & Worcester had begun service with engines built in England by Robert Stephenson, since domestically made locomotives were not yet available. Before any of these first three New England railroads were put into service, planning was underway for another line to connect Worcester, Massachusetts, and Albany, New York. A survey of the route of the new line was carried out between 1836 and 1837, with George W. Whistler, the first superintendent and chief engineer of the railroad, as one of the surveyors. Construction on the line was begun in 1837. Part of the route, including the West Brookfield segment, was opened in 1839 to the Connecticut River. None of the original West Brookfield Station buildings of 1839 survive. The description of the buildings designed in 1839 for the new line from the newspaper advertisement refers to:

“A Portico 8 ft. wide is to be connected with each of the Passenger buildings, the roof to project sufficiently to cover the same and to be supported by square pillars 10-ft. apart. At Springfield, Wilbraham, Palmer, South Brookfield, Charlton and Worcester, the Portico will be confined to the south side of the building, at West Brookfield, it will extend around the entire building, and at Warren and Clappville it will be placed at the south side and at one end. At Springfield and Worcester two rooms will be constructed in each Passenger building, at West Brookfield three rooms, and at all the remaining passenger houses, a single partition will be required. All the above rooms to be lathed and plastered, and to be furnished with a chimney and fire place each.”

Although there is no depiction of West Brookfield's first passenger depot, the above description suggests that its general appearance was inspired by the Greek Revival style. An illustration of the Washington Square Station in Worcester of 1839 shows a Greek Revival extensive canopy with Doric columns supporting the canopy and a plain, linear timber-clad building. This has a distinct colonial New England style. The same report describes how these stations had designed settings in the late C19, influenced by the ‘movement for beautiful

stations', and the landscape architect Frederick Law Olmsted, after he travelled to England in 1850.

(United States Dept. of the Interior – National Park Service – National Register of Historic Places)

<http://westbrookfield.org/wp-content/uploads/2015/04/NHR-Center-Historic-District-Expansion.pdf>