

The New Shape of Stations

Railway stations have a history of over 160 years. In earlier days, they attracted people with their grandeur and magnificence. In later times, they dropped their ornamentation, and function and efficiency were brought to the forefront. Today, we have reached the stage where passengers are starting to tire of the purely functional and efficient. What do people demand of stations now?

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The bright red circle of Toulouse

It was a surprising scene. The instant I started to ascend the escalator, a large, round, deep-red arc appeared floating in space and then quickly collapsed. It wasn't a real circle, but red paint applied separately on walls, ceiling and beams, precisely calculated so that just at that instant it became connected and looked like a perfect circle.

I encountered this design in May this year, coming up to ground level from the Jean Jaures underground station on the Mini Metro in Toulouse, France.

Construction work has begun on the underground stations in and around the 'Minato Mirai 21' waterfront area of Yokohama. This underground line will run 4.2 km east from Yokohama station, and will have four stations in addition to Yokohama itself. The ter-

minus will be built between Motomachi, the most fashionable shopping area in Yokohama, and Nanking Town, an area famous for its Chinese restaurants.

The Yokohama Minatomirai-21 Railway running this underground has decided on an all-out artistic approach to the designs of the four stations, rather than just having slaves to functional efficiency. This is the first time since WWII that a railway builder in Japan has taken this approach when building a new line.

The company sent a group to study the new underground stations of Europe to foster a deeper appreciation of the ideas in the design, construction and financing, as well as in local townspeople.

Toulouse's Jean Jaures station is one such station visited.

"Volcanoes of life"

The first exclusively steam railway was opened in 1830, between Liverpool and Manchester and the first true station architecture was created in 1838, the year after the London-Birmingham Railway reached London's Euston Station. In this year, when Queen Victoria took the throne, Philip Hardwick completed his famous Doric arch with Grand Hall in the background.

According to *All Stations* (French edition, *Les Temps Des Gares*), this arch, completed in the then empty fields of north London, brought to mind the grandeur of Greek temples, and completely took London's breath away. (Note: This book was published by both the Science Museum in London and The Pompidou Centre in Paris.)

This was the start of grandiose railway stations in countries worldwide. *All Stations* reported descriptions of station architecture by writers of the time. Here are some examples.

"Railway stations are volcanoes of life". (Malevitch)

"...the most beautiful churches in the world." (Cendras)

"...palaces of modern industry where the religion of the century is displayed, that of the railways. These cathedrals of new humanity are the meeting points of nations, the centre where all converges, the nucleus of huge stars whose iron rays stretch out to the ends of the earth." (Gautier)

So why did the stations of the time have architecture of such grandeur warranting these descriptions? Jean Dethier writing in *All Stations* says, "At that time many people were fearful of the railway coming to their



■ Toulouse: The Red Circle at Jean Jaures Underground Station

(author)

towns. It was the fear of having something entirely outside their experience, a foreign thing, coming to assault them. This type of architecture was devised to sugar-coat the railway, to alleviate their fear of change”.

From the 19th to the 20th century, a variety of architectural styles was used: Euston Station was in the style of a Greek temple; Union Station in Washington DC is in the square form of a Roman basilica, with a front arch evocative of the triumphal arches of the Constantine empire; Paris' Lyon Station is said to be art nouveau, however, when it was built, architectural magazines described it as “a compromise between the discreetly modern, and a traditional classical style” .

Other station designs included buildings resembling Roman bath houses, and Romanesque churches. Indeed, station architecture of the time borrowed from a wide range of styles from throughout the history of architecture.

However, there were some overriding points in common. Stations were all comprised of the two elements of a massive hangar-like roof, covering the platforms, and a grand stone structure in front.

The stone structures were built by architects. In these buildings, passengers would buy tickets, wait for trains, or drink tea. For the large roofs, however, the structural calculations were done by civil engineers building structures of unprecedented scale. In other words, 19th century stations were a unison of extremely artistic architecture, and extremely rational structures.

Another point in common was, almost without exception, a large clock mounted high on the front of the station building or on a large tower in front of the station. These clocks served as symbols of the standardization of time throughout Europe, a revolutionary idea that the railway helped along. Until then, common people of Europe, like those of Japan, almost never used clocks, measuring time by the movements of the sun and stars.

At Union Station, St. Louis, USA, one of the world's most sophisticated stations, a clock tower looms over 70

meters high as a landmark telling the time. However, trains no longer arrive at and depart from Union Station, and with just its facade remaining, the station has been reborn as hotels, boutiques and restaurants.

For some reason, no clock was used on the station buildings of Japan's first railway stations: Shimbashi and Yokohama. When the stations opened in 1872, trains departed every hour on the hour from 08:00 to 11:00 and then from 14:00 to 18:00. It took 53 minutes for the 29-km run between the stations. However, since common people at the time did not have clocks, communicating the precise time was a problem.

An anecdote illustrates this. The only way for the people then to find the exact time was by means of the signal gun fired at noon from the emperor's palace. For this reason, the government decided to move a massive hanging bell from a temple in Tokyo to the top of a hill east of Shimbashi, and ring the bell every hour around the clock to indicate the time.

To move the 15-ton bell from the temple, the gates would have had to be removed. However, the temple heads, unhappy with this idea, asked the government to leave the bell where it was, and let them take over the duties of ringing it. Ultimately, though, the bell ringing was stopped, because area residents complained that the ringing of the bell every hour was annoying.

19th century stations share another feature; they were not mere facilities for arriving and departing passengers, but came progressively to fulfill the role of town meeting places.

In this respect, they shared features of roadside inns in Japan that arose in the early 18th century. These inns evolved from being mere transfer and lodging facilities, to places where both travelers and local people could enjoy themselves. Similarly, in the days of long-distance travel by horse-drawn carriage in Europe, the stopovers (stages) were mainly restaurants or pubs where prostitutes worked, and which served as lively social centers for the town.

Trend to Modernism

Around the end of WWI (1914 - 1918), efficiency and functionality were favoured over frills, and the attitude of railway companies towards magnificent station architecture, as well as the ideas of the architects, began changing slightly. This change was probably due to the trend toward modernist architecture, started by the Swiss architect Le Corbusier (1887 - 1965).

Certainly, much is owed to modernism for freeing architecture from religious criteria. Its main feature, however, is the pursuit of utilitarian function and efficiency. Station architecture could not escape the trend, and modernism's functionalism robbed it of the magnificent adornments of the previous age. The station's function as a public meeting place was also discarded as a non-essential.

In appearance and structure, the emphasis was now put on increasing the efficiency of arrival and departure, and on rationalizing flows of human traffic. The featureless designs of modernism became the hallmark of newly-built stations.

Concurrently, many important stations were demolished because they weren't functional. Even London's Euston Station, the first grand station structure, was pulled down in 1962, and rebuilt as a new modernist building (completed in 1968).

After WWII, the modernism wave also reached Japan's railway stations. To increase productivity, several major stations were converted to rectangular boxes of reinforced concrete combining station with shops, and called 'eki biru'.

Like Europe and America before it, Japan had become industrialized. Naturally, the reverence for productivity took precedence, and structural rationality and functionalism were held in high regard. Unavoidably, the style of Japan's station architecture also changed giving the same face to all towns across Japan.

Once, in the early 1970s, I made the following comment to Fumio Takagi, who is now advisor (formerly president) to the Yokohama Minatomirai-21 Railway, and was at the time presi-

dent of JNR.

I said, "Aluminium arcades and coloured tin roofs have given the same look to towns all over Japan. The shinkansen is also helping this trend". He replied, "That's right, in order to lower costs as much as possible, I suppose the design has turned out a bit uniform. But I won't say that things should go on like this".

Perhaps Takagi had already heard the bugle call of the post-modern era, which, at that time, was not common in Japan.

Stations tired of modernism

Ironically, it was when Euston Station was pulled down in the 1960s, that boredom with and doubt about modernism led to a new trend called post-modern era. The station's former role as a meeting area and decorative architectural style once again began interesting people.

The increased interest in preserving Tokyo Station's red-brick building (completed in 1914) is more than just a retro fad. It embodies a feeling, held by many, that in the wisdom of the previous era (an era that modernism negates), there are hints for new lifestyles.

I think the history of railway stations is now entering its third phase. The first phase was from the opening of Euston Station until the early 20th century. The second phase was from the beginning of modernism until the early 1960s. Now, with the post-modern movement, railway stations have started to enter the third phase.

Incidentally, this three-phase history of stations also coincides with developments in the history of transport, which I think also has three phases.

The first phase began at the start of the 19th century when public carriages and railways were born, and ended after WWI, when the automobile's worth became socially recognized. This point was also the first phase in railway station history, when the railway was king.

The second phase in the history of modern transport coincided with the age of modernism, when the automobile almost, ousted the railway as the



■ Bruxelles: Wall painting of Clemanceau Station

(author)

dominant transport mode.

In the third phase, neither the railway nor automobile can stand alone without the other. The theme of this age is using various modes of transportation together. This also coincides with the value systems held in the post-modern era.

It could be said that stations in the third phase must have the appeal to lure people as junctions between various modes of transport.

From towns to stations, from stations to towns

Music concerts, which would have been unthinkable in the age of modernism, now take place under Tokyo Station's dome. This is a turning point in the flow of the building's history.

There are other examples. In Düsseldorf Station, a food market open to anyone has been set up. Washington DC's Union Station has cinemas, restaurants and boutiques. It is becoming Washington's safest area. London's Liverpool Street Station, built in 1894, has been redeveloped as a unit joined to the surrounding area, with part of the station building and a hotel left in their original form.

Towns are moving to stations and stations are moving to towns.

Although almost forgotten, in the modernist 1970s, there was a rebirth in the movement to bring art to station buildings.

One of the goals of the Yokohama

station survey group was to check the extent and strength of this movement in the field. The group visited cities such as Toulouse, Duisburg, and Brussels. Probably the first city to take artistic interest in its railways after WWII was Brussels. In addition to trams and an underground, the city has its own unique transport system called the *Pre-metro*. At first, the city's trams went underground when necessary, but eventually, in response to demand, a large-scale underground was planned, and suitable tunnel sizes and station structures were designed.

At the end of the 1960s, the first *Pre-metro* was born, and part of it became underground line 1 in 1976. A Belgian government art committee called for the participation of artists from all over the country in design of underground stations. Construction of underground line 1 began around 1970.

Sixty artists responded to the call, and to this day, their work stands as a richly-varied living museum in the 55 stations of Brussels' underground and *Pre-metro*. The work is a collection of murals, sculptures, mixed media and frescoes in various modern art styles.

Hankar Station, on underground line 1A, which opened in 1976, is decorated with a large mural of 500 square meters in surface area, called *Notre Temps* by R. Somville. In the mural, a variety of colours dance freely around a large-eyed human figure.

At Comte de Flandre Station on the

1AB line, Paul Van Hoeydonck's bronze and plaster of Paris mannequins face the same direction as they hang in attitudes of flight, suspended from the high ceiling over the platform. The piece is called *16x Icarus*.

The wall of the platform at Clemenceau Station, which opened in 1993 and is the terminus of line 2, is completely given over to J. Willaert's *Promenade*, a work depicting several child-like bright country scenes fringed by a row of arches.

In the city centre, at Bourse Station on the *Pre-metro*, near the famous Grand Place, there is a mural over the entire width of the front wall as you descend from ground level to the concourse. The mural depicts turn-of-the-century Brussels, and its trams. The trams are filled with people, and behind them are low green hills dotted with red roofs. The work is by P. Delvaux.

Enjoyable stations

Duisburg is some 20 km north of Düsseldorf, and is a port town at the confluence of the Rhine and the Ruhr. When some of the city's tram lines were moved underground, the five underground stations in the city center were given an artistic touch.

After the war, many stations were made purely functional, and decorative designs were frowned on. One city official said that underground space need not be impressive at first glance, but should allow people to enjoy being there. However, there was no intention to make the stations like those of the Moscow underground in the 1930s, which were designed with 'pride in the country's honor.' The five underground stations opened in 1992.

One of these stations, Duissen, was designed by a woman from Duisburg's city construction department, Mrs Inge Von Tolkaez. The wall is made of sandstone, with thin, naturally-shaped sheets of black stone inlaid here and there.

Mrs Tolkaez said, "Sandstone brings out warmth as a material. The reason the top of the platform continues on through to the concourse ceiling is to provide a through view, to get rid of the oppressive feeling of being

underground".

The wall of the platform at König Heinrich Platz Station is lined with mirrors to make it look bigger. However, so it does not look too gaudy, yellow and blue panels are inlaid here and there. When I came up to street level, I found a large pedestrian area, and church bells were ringing noon.

In Toulouse, France's sixth largest city and famous for the Concorde, an automatically-operated mini metro started running in 1993. At present it has 15 stations over 10 km.

The Toulouse transportation authority, *Metropole Transport Developpement*, took pains with the stations' interior and exterior design, and their ease of use. An international competition for architects and artists was held, and 15 winners were selected from 600 entrants.

There were certain conditions stipulated for designs. The stations had to have a clean feeling. The designs had to be free of dead angles, so that dirty areas would be quickly noticed. The structure had to be simple, with no excessive decoration to impair smooth flow. The quality had to be maintainable for a long time. The basic color was to be white, etc.

I spoke with Msr D. Orlac, who undertook the design of Bagatelle Station. He said, "The problem with this station is that the space is extremely wide, it's long and the ceiling is low. This is not the type of environment in which modern art can easily be placed using conventional ideas, so I tried to make it a place where people walk inside a work of art, rather than a place for looking at art".

Red and blue lights are arranged on the floor and ceiling. According to Orlac, he placed the lights so that they mix with each other to create a limitless feeling. After talking with

him, I went to look again, but as a Japanese, I was troubled by the overall darkness of the station.

Msr J. Benoit, facilities chief of the transport authority, impressed me when he said, "Toulouse is basically a red-brick city, although recently many bricks are imitation, which detracts from the beauty. This was the reason I thought the metro should be made from natural materials".

Station designs in Japan present new challenge

How will Yokohama's four new subway stations turn out? A different design office is taking charge of each of the designs. The task is not only to come up with artistic designs, but also to determine how easy to use the stations can be, how much they express the individuality of their surrounding areas, and how much they attract people and can be fun.

The designs will have to be inspired to get around the constraints of limited budget, limited underground space and predetermined ground-level access points. This is the first time a project like this has been undertaken in Japan, but I think that those involved have learned much from studying new stations in various European cities.

Yokohama's new underground should open at the start of the 21st century. Japan has spent the last century in pursuit of economic efficiency, and I hope that this new underground will serve as an expression of the first step toward improving that way of life. ■



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