

Verkehrshaus der Schweiz: Switzerland's different transport 'museum'

The Verkehrshaus: a special case

'Verkehrshaus' means 'house of transport', not 'museum of transport'. This small difference serves to define a different kind of institution: one that is a learning place with a leisurely atmosphere, where entertainment and enjoyment are permitted; one that focuses on the joy in watching and experiencing, and fosters curiosity for the unknown. A look back into history can explain this special case.

In 1897 a member of staff of the Jungfrau Railway Corporation sent out a call to all railway enterprises and 'interested circles' that they should keep historical material and provide public access to it. He stressed the pioneering role of the Swiss in building mountain railways. In 1902, the Society of Graduates from the Zurich Polytechnic University sent out a similar call. Neither initiative led to any further steps, and even the founding of the Swiss National Museum (Landesmuseum) in 1898 had no positive impact on the development of a transport museum.

Then, at the national exhibition in Bern in 1914, there were numerous exhibits of both contemporary and historical objects. Many of the rail-related items found their way into the museum of the Swiss Federal Railways, which was installed in the Zurich freight station in 1918.

The creation of a true transport museum can be said to have had its beginnings in the planning of the national exhibition of 1939 in Zurich. Corresponding museums in Budapest, Nuremberg, Berlin, Munich and Vienna were cited as examples. However, it is worth noting that R Cottier – Director of the Swiss Federal Railways, first President of the Verkehrshaus der Schweiz foundation, and the author of a letter promoting the idea of a transport museum – mentioned that none of the foreign museums devoted itself to all means of transport. Thus, the creation of a Swiss transport museum incorporating all areas of transport would mean something completely new in Europe.

Profits from the national exhibition were used to set up an office charged with making plans for the railway museum, and the engineer E Fontanellaz was appointed as executive officer. He made an initial sketch of the future transport museum: one building for each means

of transport, interconnected by roofed corridors and with a central entrance. At the same time he had in mind two museums which were to influence the later Verkehrshaus: the Museum of Science and Industry in New York, which he called a 'hands-on' museum with all its buttons, films and models; and the Children's Gallery at the Science Museum in London, which had artificial rainbows and numerous light effects that made a strong impression on him.

On 27 February 1942 the 'Verkehrshaus der Schweiz' foundation came into being; in 1950 it moved to Lucerne, where it was given a building and grounds by the city authority in 1954.

The Verkehrshaus as a forerunner of science centres in Europe

On 1 July 1959 the museum was opened, nearly two years later than originally planned (Figures 1 and 2). The first Director, Alfred Waldis, who combined great enthusiasm for the topic with a fine feeling for public relations and the needs of the visitor, was responsible for an unprecedented construction phase, which resulted in a substantial increase in the museum's size.

Waldis's approach, incorporating texts in four languages, covering topics from local to global perspectives (planetarium, space travel) and employing numerous hands-on exhibits, helped to promote in Europe a new, Anglo-American style of museum and made the Verkehrshaus a forerunner of modern science centres. The focus on visitors' interests, the professional work by exhibition architects and designers, and good public relations efforts with the help of prominent persons from the transport field, added to the growing popularity of the museum.

There was a conference building dedicated to providing a forum for discussion of contemporary events, and spaces for special exhibitions on topical issues and multimedia presentations. The first large planetarium in Switzerland (1969), a multimedia show on the history of space travel (Cosmorama, 1972), the 'round' Swissorama cinema (1984) and the IMAX theatre (1996) can be seen as continuing efforts to incorporate the latest communications technologies into the museum complex.

The scope of many of these installations went far beyond the borders of canton or country, which was unusual for museums and collections in Switzerland. This was due in large part to the subject matter, which included mass motorisation and the rise of international aviation in the postwar period – a period which saw an opening towards foreign countries previously unknown, a kind of 'globalisation' focusing on the Western world. The topics covered by the Verkehrshaus were thus of great interest to a wide public for many years.

Unfortunately, the objects that served as hands-on teaching examples suffered as a result of the large number of visitors (120,000 in 1959, 700,000 in 1982 and since then an average of 500,000 per annum). Some objects were removed from exhibition; others were

Figure 1 Since its opening, the Verkehrshaus has owned a 1904 Oldsmobile. A collection of catalogues and 230 letters from the former owner provide documentary evidence of the life of this car, including accounts of the smallest breakdowns and other events. The history of the car is known in every detail. In contrast, however, several restorations of the car have erased all physical traces of this history. (Swiss Museum of Transport and Communication)

either replaced or restored with the help of sponsors. From today's perspective, these restorations were not done in a professional manner. Use of the artefacts within the exhibitions was given priority over their preservation. Therefore, knowledge about their operation or about their technical features (e.g. vehicle dynamics) was retained only in some exceptional cases. On the other hand, due to the lack of resources quite a number of objects remained in an unrestored state so that they still possessed substantial historical value.

The rapid expansion of the museum also saw an enlargement of the collection. Most of the objects were donated; today the collection has about 7000 items (excluding the archive). It does not have the completeness that one might expect in a national collection; on the other hand the museum is a private association, which guarantees an independent collection policy, free from political or economic interests.

New forms of education

In addition to the large multimedia shows, various projects have been accomplished since the late 1990s that are closely linked to the collection. They make use of the techniques of science centres used in the United States, but are based in history and on the knowledge gained from documents and objects. The following *mise en scène* gives

an idea of how the visitor is expected to view an exhibit and, hopefully, develop an emotional bond with the objects.

In *Nautirama* at the Vierwaldstätter lake, groups of visitors are guided with light and sound through the history of water transport and tourism (Figure 3). They experience a time journey in nine multimedia displays, which focus on changes in the perception of the Alps in the nineteenth century – from a barrier to a destination. Technical development from small freight ships to motorised transport is also shown. *Nautirama*, which opened in 1995, concentrates on the social and cultural effects of technology. The show tries to avoid being merely a presentation of fascinating technical milestones.

Outside *Nautirama*, there is a collection of about 70 ship models illustrating navigation on Swiss lakes and a panoramic picture of the lake; an architect's model makes clear the changes in the city architecture of Lucerne after the arrival of the steam ship and the railways.

When the railway exhibition was renewed and moved to a new building, it had to be confined to the same geometry, with the same vehicles on display. An increase of space was possible only in the basement of the IMAX theatre, which had replaced the previous buildings housing the railway exhibition. The concept developed by Geneva designer Roger Pfund in cooperation with the Verkehrshaus included: first, a red footbridge about 100 metres long connecting

Figure 2 Le Rhône, rotary engine from a Hanriot aircraft (1921/22). Traces of damage to several valve heads are still visible today. The damage undoubtedly dates back to an accident during a transfer flight in 1922, which was the reason why the engine was taken out of service and eventually ended up in the museum. (Swiss Museum of Transport and Communication)

Figure 3 The history of water transport is displayed in a very small area in Nautirama. Visitors pass through the saloon of a paddle-steamer and a scene depicting a shipping catastrophe in the Middle Ages, before arriving at Mount Rigi, which represents one of the most popular tourist destinations during the time of Enlightenment. Further along are experiences relating to industrialisation and the introduction of steamships, and a 'time theatre' which shows the effects of acceleration and speculation. The end of the exhibition is marked by a real shower of 'rain', at the point where visitors meet Queen Victoria, King Ludwig II of Bavaria and Kaiser Wilhelm II, who represent the heyday of tourism before the First World War. (Swiss Museum of Transport and Communication)

the three existing halls with a 'classical' type of railway exhibition and, second, an opportunity for visitors to go on a train ride into the construction site of the St Gotthard tunnel in 1875 (made possible by offering a vivid experience based on a thrilling yet historically accurate story).

The division of the exhibition into two parts makes it possible to address a large potential audience. The footbridge not only gives an overview and assists orientation, but also allows an unusual perspective on the vehicles, including both their interiors and their roofs. Furthermore, the show enables visitors to identify with human experiences and to find out more about tunnel construction, life in the mountain village of Göschenen and the political and economical context. The original drilling machines, stone samples and a theodolite give additional authenticity to the *mise en scène*.

Novel approaches were used as well for the newly designed exhibition *Cosmorama*, which opened in 1999, 30 years after the first moon landing. Crewed space flight was relatively new in 1972, at the initial opening of the exhibition. The few objects on display, mostly borrowed from the National Air and Space Museum in Washington, were of great interest to visitors at that time. By 1999 this interest had significantly diminished; the collection had grown hardly at all, and many exhibits had to be returned. On behalf of the Verkehrshaus, the ethnologist Jacqueline Milliet conceptualised an exhibition on the theme 'Life in Space'. It aimed to attract a wide, predominantly young audience and thus offered something different in terms of the media used, going beyond the existing IMAX theatre, planetarium and Gotthard tunnel show.

The 700-square-metre exhibition is divided into three sections. The first deals with weightlessness in space in a playful way. The middle section of *Cosmorama* takes visitors on a journey to a mysterious asteroid field using video and laser effects. In the third section, authentic artefacts together with replicas and models illustrate the history of space flight and its significance for propaganda and international cooperation. In some showcases, Swiss companies present their latest contributions to space flight.

The ethnological approach mainly focuses on the effects of the exploration of space on human perceptions. This means that new and unexpected artefacts can be included. In the entrance section, for example, a reconstruction of the European ISS research laboratory Columbus is placed beside a children's merry-go-round. This unexpected exhibit can be seen as a perfect 'simulator' for space sickness.

The exhibition was designed as a succession of rooms which serve as exhibits by themselves. In the entrance, the visitor passes on an escalator through a familiar, homely environment: a bookshelf, a table and kitchen furniture arranged in a seemingly weightless and chaotic

way, which introduces the concept of 'zero' gravity in space. Thus it becomes indirectly clear why sleeping areas and work stations in the space station are located under the roof and along the walls.

In the department of space archaeology the storage facilities in the museum's basement are integrated into the exhibitions. The attraction of storage facilities as an area usually not accessible to visitors and the desire to put on display as much as possible are thereby combined. Visitors can follow the traces of 30 years of space history, from a replica of Sputnik 1 to the Mercury space module and to the solar wind experiment by the University of Bern.

In the mausoleum, six spacesuits (originals and replicas) are displayed horizontally in individual niches (Colour plate 13). They suggest the architecture of a burial ground or of paintings of the Italian Renaissance, thus oscillating between tradition and provocation, between a reverence of heroes and a questioning of our relationships to the heroes of space travel. The spacesuits are viewed individually through small windows, instead of in a classical showcase, which limits access but at the same time increases attention.

In the rooms of the old *Cosmorama* a laser contact show is combined with a science-fiction video in six interactive sequences. Visitors can influence the action with the help of a programmable laser pointer, answering questions or 'destroying' space waste.

Apart from the conventional labels, quotations from prominent persons and astronauts about the history of space flight are displayed, close to specific objects or object groups. Visitors can quickly become acquainted with new and different contexts by reading just a few of these labels.

Balloons have often been used as an attraction in exhibitions. Modern materials and the use of helium now make possible long-term economical operation. The beautiful panorama of the Verkehrshaus, the city of Lucerne and the Vierwaldstätter lake, together with the view of the Alps of central Switzerland, constitute a perfect reason for the installation of such a tethered balloon as landmark and live experience. It is a special attraction in good weather, a time when visitors ordinarily avoid museums. After a postponement of the project due to local opposition, Hiflyer began operation in 2000. The distinctive white globe attracts tourists from the nearby city and provides extra fun for visitors.

Between vision and reality: the concept of 'Verkehrshaus 2002'

In preparation for the new road transport hall, an architectural contest was announced in 1999. The existing structure, built in 1959 (Figure 4), can no longer deal with the dramatically increased importance of road transport and will therefore be replaced by a larger new building. The winning architects, Gigon & Guyer (Zurich) have proposed a city development concept with several themed buildings

interconnected on several levels by small bridges (Figure 5). They symbolise transport and communication links and also divide the outside area. Existing buildings will be either integrated or replaced, depending on funding.

As a first step, a garden restaurant was completed in 2000, and in June 2001 the refurbished planetarium was opened, with a new hemispheric 'all-sky' video projection and a revised Zeiss projector. Currently, funds are being raised for the new road transport hall and plans are being developed for a new multipurpose entrance building.

Conclusion

The artefact, as a symbol of past reality, will forever remain fascinating, in part because of the number of ways it can be interpreted. However, the source of its attraction changes over time. It is in the power and imagination of curators, researchers and designers to adjust to those changes. The museum object will therefore continue to play an important role in the future planning of the Verkehrshaus.

Figure 4 Drawing of the Verkehrshaus as built in 1959. (Swiss Museum of Transport and Communication)

Figure 5 A vision of the Verkehrshaus in 2020. The architects A Gigon and M Guyer had to accept that the museum has grown in a heterogeneous manner, and that different architects, using different architectural styles, will probably add to the development of the museum in the future. The winners of the 1999 architects' contest do not speak of the 'Verkehrshaus' but of several houses, a contingent of topic-related buildings. (Swiss Museum of Transport and Communication)