Siegfried Wendel with barrel organ

The Drosselgasse main street in Rudesheim

A MUSICAL JOURNEY

Siegfried's Mechanical Musical Instrument Museum, Rudesheim am Rhine, Hessen, Germany

Rüdesheim, a popular tourist destination on the River Rhine in Germany, has a lot of museums – the Medieval Torture Museum is its newest one, detailing, as might be expected, an unpleasant insight into the witch hunts of the Middle Ages. Then there is the Rheingau Wine Museum, which traces the history of wine making in the region back a thousand years; and high above the town the Niederwalddenkal Monument.

However, in my opinion, Siegfried's Mechanical Instrument Museum, started by Siegfried Wendel in 1969, is the most fascinating of them all. It all began when Siegfried and his new wife Gretel were on their honeymoon in the mid-1960s in San Francisco, USA. They visited a mechanical musical instrument museum there which had a selection of self-playing pianos and other mechanical musical instruments. Many of them had been made in Germany.

In Siegfried's own words '*Der Groschen war gefallen*' (the penny dropped) – a not inappropriate comment. Collecting and restoring mechanical musical instruments had been a hobby of his up to this point, but on his return to Germany he turned his hobby into a life-long career, opening his first museum in Hochheim in 1969, then moving to Rüdesheim, eventually renting the Brömserhof, a sixteenth-century castle at the top end of the main tourist street, the Drösselgasse. The collection now numbers over 350 mechanised instruments and attracts over 90,000 visitors a year, an enormous number considering that the museum is only open between March and December.

Historically, the oldest mechanical musical instruments date from the fourteenth century. Some of the earliest were the clockwork chimes and tunes of cathedrals; many medieval-era German towns still have working mechanical musical clocks on public buildings. Music boxes were produced for wealthy patrons between the seventeenth and early nineteenth centuries in Switzerland. People marvelled at the realistic birdsongs that were reproduced using a single flute-shaped tube, up and down which a piston moved to give the sound. Several examples of nineteenth-century music boxes are on display in the museum.

In the first half of the nineteenth century the Black Forest region of Germany was at the centre of the mechanical musical instrument industry. Barrel organs were mass produced and became popular street music. The industry reached its zenith in the second half of the nineteenth century. Its fortunes were undermined by World War I. Then, following the wide introduction of radio in the 1920s, the industry went into a decline, hastened by the financial crash of 1929. By the early 1930s it had virtually disappeared.

Doll Orchestra Machine

Mechanical musical instruments are in fact activated by digital information, similar to a computer. They use either paper or steel discs out of which a series of perforations has been stamped. The position and length of the perforation determines the note played. The paper roll moves over a device known as the 'tracker bar' which has a series of holes. When a perforation passes over the hole, the note sounds. Most of the exhibits in the museum are powered by electricity that operates the pneumatic system which drives the paper over the tracker bar. All have one thing in common, however: they lack a volume control!

Among the most popular mass produced items were *Orchestrions*, a generic name for a musical machine designed to sound like an orchestra. These were particularly popular in the 'Jazz Age' of the 1920s; a restored Orchestrion is one of the first exhibits the visitor encounters. The Weber Maestro Concert and Jazz Orchestrion is two metres high and is housed in the museum's main room on the ground floor. It is made from mahogany and when it's closed you can admire the pleasant Rhineland scene on the door. Opening all the doors, the guide activated the Orchestrion and took a step back, as did the front row of people when the piano roll started rolling – it was very loud. First came the sound of sticks beating time and then it belted out a snappy version of 'My Blue Heaven', followed by a few other jazz numbers. With all the doors open we could see the mechanism of wheels, belts and pulleys that push air through the bellows, sending the sound from the piano roll through the large organ pipes. In organ mode, it sounded like a cinema organ; in piano mode, a jazz piano. Originally it was advertised as 'A Jazz Orchestra for every Dance Floor' – in fact an early juke box.

Another enormous exhibit is the largest Doll Automaton Calliope that was ever made, at almost 4.0 metres wide and 2.80 metres long. It was produced between 1888 and 1892 by a German immigrant to the USA, Bernhard Dufner, who lived in Buffalo. A calliope produces its sound by pushing compressed air through large whistles or pipes.

The dolls are all dressed in eighteenth-century clothes and, while a gentle melody plays, the doll orchestra moves bows across violins and cellos and taps other instruments, moving their heads in time to the music. Four of the dolls in the front row are monkeys in fancy frocks playing violins. The performance is so life-like that there was a smattering of applause from the entranced audience when the music ended.

Frescoes of forest scenes and sailing ships, all linked with the original families who lived in the castle, decorate the ceilings of some of the upper rooms. In one of these rooms is a 'reproducing' piano – described as *Musik von Zauberhand* – music for the magic hand. Pianos like this caused a sensation when they first came on the market in 1904. They were a sophisticated, electrically powered development of the traditional player piano which automatically reproduced the nuanced expression of the artist.

According to the museum information, 'Many celebrities of the music world such as Richard Strauss, Claude Debussy, Edward Greig and Gustav Mahler were overwhelmed and full of praise' for this invention, and piano roll recordings of these composers playing their own works are still in existence. For the first time ever, the personal interpretation of the artist could be recorded and replayed at will.

Piano rolls became big business: the Aeolian Company in Britain had more than 9000 roll titles in its catalogue, adding 200 titles per month. Many companies' catalogues ran to thousands of rolls, mainly of light, religious or classical music. The first original composition, 'Etude for Pianola' by Igor Stravinsky, was commissioned and recorded in the U.S.A. in 1917. However there was still something a bit creepy about a piano playing by itself and it drew a large crowd.

The Hupfeld Phonoliszt Violina, on display in a room it shares with wind-up gramophones, caused no less a sensation than the pianola. The sound quality of this invention of five violins and accompanying piano was so good that when it was first displayed in the Leipzig autumn fair in 1908 it was dubbed 'the eighth wonder of

the world'. The sound is remarkably accurate; when our guide reverently opened its cabinet it drew a large crowd. It is estimated that by 1930 a total of 10,000 of these mechanical violins had been produced, but only 60 are known to have been preserved.

Several fairground organs were on display in the basement, originally the castle's cellar. Also there were calliopes, which used either steam or gas to propel their mechanisms when in use at fairs.

From the mid-nineteenth century onwards, no festival or fair was complete without one. The largest in the museum, an 80-key organ, was made by the Gebruder Brothers with an Oriental-style façade and a life-like figure dressed in a turban and clothes patterned with moons and stars. A smaller 57-key organ built by the same firm in 1900, the Gebruder Wellershaus fairground organ, was found by Siegfried Wendel mouldering away at the back of a Berlin *bierkeller*. He bought and restored it to its original sparkling self. It plays various tunes, 'Two red roses and a tender kiss' and 'Girl, I'm so good', and uses a cardboard music book, folded zigzag style, instead of a paper roll. It has 52 notes and a 16 musical instrument sound. It was not demonstrated to us in its confined space.

Siegfried was tutored for five years in restoration techniques by Leopold King, who worked for 36 years in the famous Phillips Orchestrion factory. His sons Jens and Jorg Wendel have followed him into the business. In addition to restoring and maintaining the exhibits in the museum, they run a music box wholesale business, and also take commissions to manufacture exact replicas of some of the pieces in the museum.

As you might imagine, the museum shop is a magnet for visitors. With not a tea towel in sight, the shop is a pleasant cacophony of tinkling. Who could resist the musical Ferris wheel, the beautifully decorated carousels in all sizes, musical Christmas ornaments, large and small music boxes?

Fairground organ

Germania Monument on Summit

So with the wheezing music ringing in our ears we took the cable car to the *Niederwalddenkal* (the monument in the forest). Situated high in the wooded hills above the town, this is the second most visited site in Germany after Cologne Cathedral, and can be reached either by cable car or by a pleasant walk up through the vineyards.

At the end of the Franco-Prussian War (1871) Germany was united as one country under Kaiser Wilhelm I. To celebrate the victory over the French, money was contributed for the erection of a monument overlooking the Rhine. This enormous structure features *Germania*, a figure standing 10.5 metres high. In her right hand she holds aloft the recovered crown of the Emperor and in her left the imperial sword. Below the statue is a relief showing the Emperor on horseback surrounded by the nobility, military officers and soldiers, and under the frieze the words of 'The Watch on the Rhine', a patriotic poem by Max Schneckenburger that was later set to music.

The text explaining the various engravings and figures is in German, but it is possible to hire a multi-lingual audio guide from the café nearby. From this vantage point there is a sweeping view down the sloping vineyards to the Rhine, past Rüdesheim and over the open countryside beyond.

This is an area steeped in music: Hildegard of Bingen was born near here, and everywhere you go the chimes of mechanical clocks mark the passage of the days. Thanks to Siegfried Wendel and his *Mechanisches Musikkabinett*, we are still able to enjoy excellent examples of mechanically produced music.

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