A public garden line in

Germany celebrates ... 20 YEARS

The garden railway at Park Railway Chemnitz

by Dieter Kuhnert | Chemnitz, Germany

PHOTOS BY THE AUTHOR EXCEPT WHERE NOTED

1. A Harz Mountain train with locomotive Nº 99 7238-1 approaches the Goldbach station while a diesel-powered freight train departs.

THE PARK RAILWAY in Chemnitz, Germany, opened in 1954 as the Pioneer Railway of Karl Marx City. It is a 600mm-gauge, 2.3km circuit, and was designed as a recreational facility for kids and young people. In 1989 Karl Marx City was renamed to its old name of Chemnitz. In 1992 the Pioneer Railway was also renamed to Park Railway Chemnitz, but continued as it had for the previous 38 years. The garden railway was added in 1998.

Around 135,000 visitors come to the Park Railway facility annually, many of whom also visit the garden railway. Children aged 10

2. Visitors enjoy the vehicle parade in October 2012. In the foreground a large, scratchbuilt crane waits to unload cargo.

3. Aerial shot of the garden railway taken from a drone, August 5th, 2014. PHOTO BY YVES LANGE

The railway at a glance

Name: Gartenbahn der Parkeisenbahn Chemnitz
Size of railroad: 21m x 9.5m (69' x 31')
Scale: Mostly 1:22.5
Gauge: Nº 1 (45mm)
Era: 1965-present
Theme: Central German Mountains
Age: 20 years
Power: Massoth DiMAX 1210Z; Digital Central Station 20 V/12 A
Length of mainline: 245m (803')
Length of storage sidings: 125m (410') in two levels
Track switches: 61 switches; LGB #16050 and #16150
Maximum gradient: 3.5%
Type of track: LGB
Minimum radius: 1,195mm (LGB R3)
Structures: Pola, Piko, and scratchbuilt
Control system: DCC
Website: *www.parkeisenbahn-chemnitz.de/uebersicht*

to 18 receive job training as Park Railway operators. Training starts with inspection service at the ticket booth, train conductors, gatekeepers, and continues to ticket vendors, locomotive engineers, supervisors, and dispatcher. Particularly committed youth can help with the maintenance of the locomotives and rolling stock. Some continue on to become locomotive engineers in our facility.

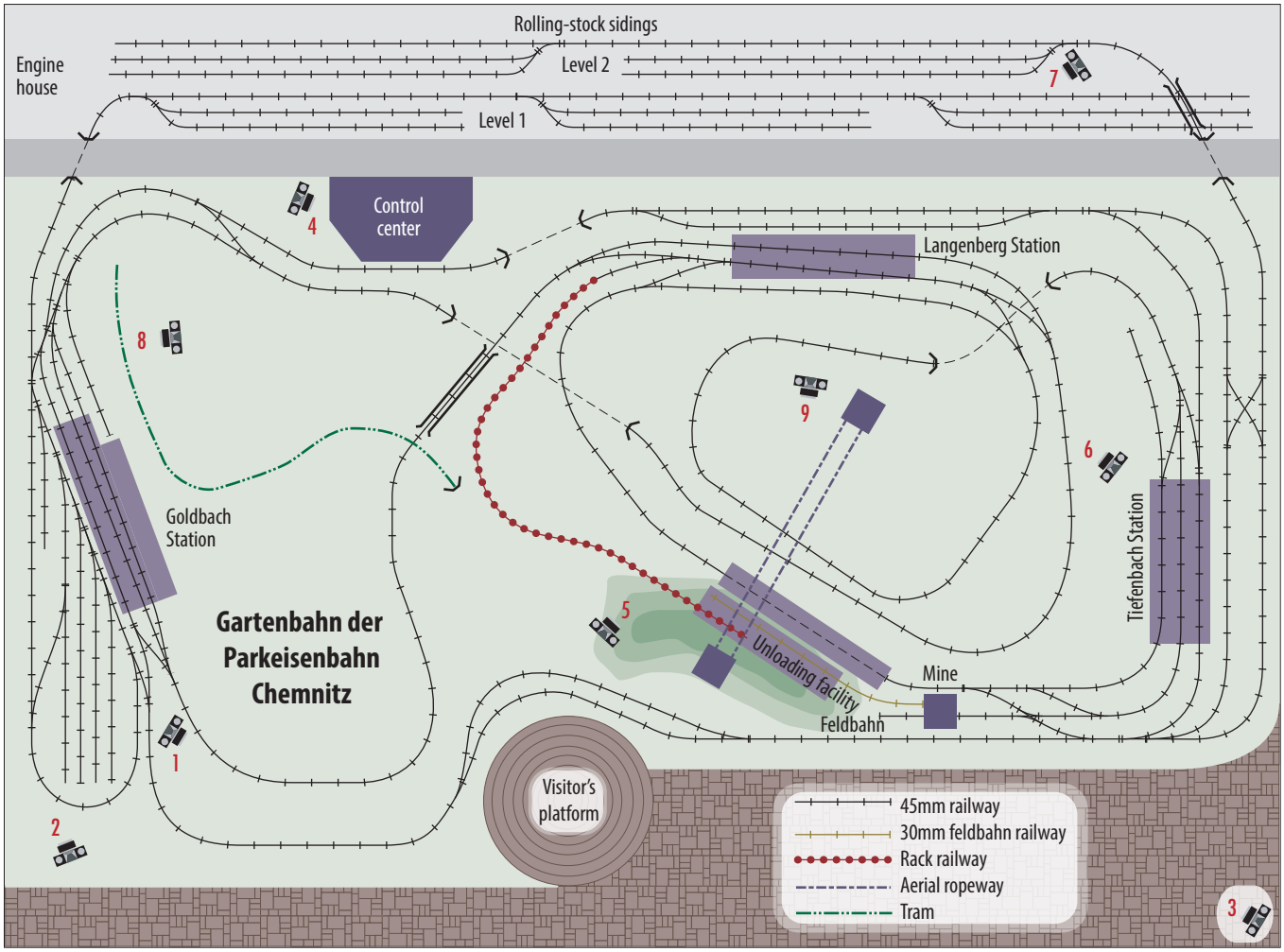
The Park Railway Chemnitz and the garden railway are operated by a group of volunteers—Friends of the Park Railway Chemnitz. The only full-time employees are the technical manager, locomotive engineer, station manager, and a caretaker.

Garden railway origins

The old (full-size) roundhouse was partially destroyed by arson in 1994. A new locomotive-and-wagon shed for the Park Railway was finished in October 1997. The new facility is larger and better equipped, providing better training and sanitary facilities and a courtyard.

The younger members of the Park Railway expressed a wish to use the courtyard for a landscaped outdoor model railway. The former manager of the Park Railway contacted local model-train enthusiasts and asked for proposals. It quickly became clear that the theme of the railway was to be narrow gauge, representing the mountainous region of central Germany without a specific prototype. Tracks would be laid with a radius of at least 1,195 mm (LGB R3).

Shortly before the completion of the new locomotive-and-rolling-stock shed in 1997, model railroaders laid out LGB track in the open space of the courtyard to demonstrate the feasibility of the concept. This started of the garden-railway work group. With the financial and material support from the city and the people of Chemnitz, the project started. In the winter of 1997-98, up to 10 garden-railway volunteers began the work, sometimes under lights to get the railway ready for the grand opening on May 1, 1998.



Construction

Work began by clearing and leveling the leftover rubble. A weed barrier was laid down where the track and the train stations would be located. Track and switches were laid. When flex track became commercially available, we used a bending machine to bend larger-radius curves and adapt the track to the planned terrain. When this was done, we put down a bed of gravel for the track with a grain size of 3-5mm. The track is not anchored to the ground but, like the prototype, lies on top of the soil. LGB brass track is high quality; even after 19 years of running in the heat of summer (up to 100° F) and in the cold of winter (down to -13° F), not one piece of track has had to be replaced.

By May of 1999 the basic shape of the trackplan and the terrain was finished. In the following years, only single pieces of track and switch connections were changed for practical reasons, so trains could be operated independently on three different circuits from the control center. Multiple short pieces of track received from donations became problematic. Despite electrical connections installed every three meters, we found that after three to four years of use, there were power fluctuations at the joints. To solve the problem, the short track sections were exchanged with flex track and connections received soldered-wire jumpers.

Initially, we had to carry the equipment every day from the workshop to the railway and back. But in 1999, we constructed a protected storage area for the railway equipment, with 75 meters of track located at the side of the locomotive-and-rolling-stock shed.

In May of 2003, the four-day International Garden Railway Meeting took place at the Park Railway Chemnitz. About 20,000 visitors attended the exhibition in a 600-square-meter tent on the fairground of the Kuechwald in Chemnitz and on the premises of the railway depot. A total of 14 large garden railways from Germany, the Netherlands, and Austria were on display, and a large number of dealers showed their wares.

4. The control and switching desk in the weatherproof shed. Also visible are two of the DiMAX R/C systems.

In preparation for this, our garden railway was changed from analog to digital technology. Initially, LGB's DCC technology, MTS I, II, and III was used.

5. The forging hammer inside the rustic shed is powered by the water wheel. In the background is the cog railway.

Plants of the Garden Railway at Parkeisenbahn Chemnitz

Chemnitz, Germany, USDA Hardiness Zone 6

TREES

Maple
Acer platanoides

Chestnut
Castanea sativa

False cypress
Chamaecyparis sp.

Beech
Fagus sylvatica

Juniper
Juniperus sp.

White cedar
Thuja occidentalis

Basswood tree
Tilia platyphyllos

SHRUBS

Boxwood
Buxus sempervirens

Common hornbeam
Carpinus betulus

Privet
Ligustrum vulgare 'Atrovirens'

Barren strawberry
Waldsteinia ternata

FLOWERS AND GROUNDCOVER

Snapdragon
Antirrhinum majus

Dwarf aster
Aster dumosus

Crocus
Crocus vernus

Dwarf dahlia
Dahlia 'Braveheart'

Heather
Erica vulgaris var.

Gentian
Gentiana clusii

Evergreen candytuft
Iberis sempervirens

Spring snowflake
Leucojum vernum

Poached egg plant
Limnanthes douglasii

Geranium
Pelargonium sp.

Stonecrop
Sedum sp.

Horned pansy
Viola cornuta

Pansy
Viola wittrockiana

Celebrating 20 years

The Garden Railway of the Park Railway Chemnitz celebrates its 20th anniversary in October 2017. Our website is *www.parkeisenbahn-chemnitz.de/uebersicht* Please contact us with any questions or requests.

A two-minute video can be seen on YouTube: *http://bit.ly/2qa0O7s*

But by 2008, the MTS technology had been superseded by the DiMAX products of Massoth, which used a digital switchboard and offered more innovative ideas, such as radio transmitters and receivers.

Compromise

We initially planned to use only narrow-gauge trains representing those in use in the German-speaking countries (Germany, Austria, and Switzerland). Over time, though, we found that younger children could not relate to our narrow-gauge steam locomotives. They knew only modern mainline trains, such as the BR 642 (Talent) and the ICE. This led to a compromise. We now run both standard- (ICE and the BR 218) and narrow-gauge trains (Saxon narrow-gauge railways) on the 45mm track. Chemnitz is located in Saxony, so there is a historic link with the former Chemnitz locomotive factory of Richard Hartmann.

In 2005, we built a small switch-and-signal house that contains not only the control console but also the railway operator, protecting him from the weather while still offering a good overview of the entire system. Switches are connected digitally via push buttons and the switch direction is indicated by lights. Individual locomotives are controlled with the DiMAX radio-control system. The trackplan shows the three independently operating loops.

At stations and passing sidings we can change trains or they can pass each other when operating. This allows the operation of at least two trains per loop, making it more interesting for visitors. From the depot we can also constantly send trains to each route, returning other trains to the depot. We also have an electrified rack railway running up the hill.

A light railway of 30mm gauge and a streetcar on 45mm gauge also exist, but these are operated via analog, as they are not connected to the rest of the network. We also have an aerial ropeway tram with lower and upper terminals. Originally made by LGB, only the cars are left from the original set-up. Everything else we rebuilt. Our cable car functions like the prototype, with carrying and pull ropes.

Two garden-railway volunteers operate the whole system on open days, Saturdays, Sundays, and holidays. For special events, like the Garden Railway Show, all

6. A vintage train, headed up by the locomotive *Saxonia* (made by Regner), has just left the Langenberg train station.

volunteers are needed. On these occasions, we bring out all of our rolling stock for a special parade, which includes vehicles not always in service. During the parade, one of our volunteers explains the vehicles to visitors, giving a short history of each.

Scratchbuilt models

Over the years, many models for the garden railway have been scratchbuilt. Members built a model of the first Saxon steam locomotive, the *Saxonia*, from a Regner kit. Accompanying passenger cars were scratchbuilt of wood from blueprints from the Dresden Transport Museum.

Members also scratchbuilt a functional merry-go-round, a Ferris wheel, a church, and a water-powered hammer mill.

7. Storage area of the garden railway in the (full size) locomotive-and-wagon shed. Trains are stored on two levels and multiple sidings.

8. An LGB tram approaches the terminal near the Goldbach railway station. The tram's pantograph engages the overhead wire, like the prototype.

9. View of the ropeway cable cars above the avalanche gallery. The cars themselves are LGB—the rest of the system was scratchbuilt.

Full-size examples of these things are plentiful in Saxony. Our church clock is functional, ringing every quarter hour.

Our newest model is of an SKL 24. The prototype is used in laying tracks and in track maintenance, both for standard- and narrow-gauge work. We were able to obtain the original blueprints from the manufacturer Gleisbaumechanik in Brandenburg. The model was scratchbuilt from sheet brass.

Too-steep grades

We initially used grades of up to 6%. LGB locomotives with a few wagons had no problem with inclines like that. However, trains of up to eight wagons could run into problems. To remedy this, in 2000 we started to modify the grades from 6% to 3.5% and we installed wire jumpers at the track joints. Now we only have problems with locomotives slipping on inclines if the weather is wet, at which time we disconnect one wagon.

We guarantee the operation of the railway for visitors in nearly any weather. When light rain falls, we do not use the sensitive sound locomotives, but rather just the railcars and diesel locomotives. During heavy rain, we do stop operation; visitors have always been understanding.

On St. Nicholas Day (Dec. 6) and on Boxing Day (Dec. 26) we operate the garden railway outside of our regular season of May to September. We convert our Goldbach train station into a Christmas Market, with a Christmas tree and different sales booths. If there is snow, the trains still operate. Only once, in the winter of 2010, running was impossible because the railway was covered by 60cm (24") of snow!

Plantings

From the beginning, we had a garden-railway friend with his own railway in which he planted shrubs and trees from cuttings. He donated many of these to our railway. These plants grew nicely in the past 15 years. We now have more than 180 miniature trees, made up of deciduous and evergreens. Plants are pruned weekly. Once a year they are removed and thoroughly cleaned, and part of the roots are removed, after which they are returned to the same space. This prevents the plants from growing too tall and they stay more in scale with our miniature buildings and vehicles. In the spring and summer, flowers are planted. Nobody seems to know how the gentian plant got into the facility, but it blooms every year.

We garden-railway enthusiasts are volunteers and we care for, maintain, and repair the railway and its vehicles. The facility can be visited free of charge on weekends. However, there is a donation lantern where donations can be offered by visitors. The money is used to purchase vehicles and spare parts—in particular, transmission gears, pantographs, and some electric motors for the locomotives.

Six of the 10 Friends of the Garden Railway. Left to right: Werner Rüger, Dietmar Jäger, Philipp Toth, Timo Lang, Gert Rothe, and author Dieter Kuhnert. Absent are Peter Rothe (son of Gert), Wolfgang Schröpl, Stephan Hoppens, Ivan Samoylenko, Matthias Grusser, and Janek Lath (our youngster, at 15).

Our locomotives run yearly an average of 50km (31 miles)!

Around the year 2000, at one of our vehicle parades, a little boy was heard to say, "There are no people in the trains!" Up to then, people could only be seen outside the trains. From that point on our passenger coaches were equipped with lights and little people. More than 400 standing and sitting figures now enhance our trains, buildings, and stations.