

International Edition

Free,
electronic magazine
for railroad enthusiasts
in the scale 1:220
and Prototype

www.trainini.eu

Published monthly
no guarantee

ISSN 2512-8035

Trainini

German Magazine for Z Gauge



Clear the Way for our Diorama

Taigatrommel from Ukraine
Reader layout with Alpine scenery

Introduction

Dear Readers,

Parents and grandparents gave us all something to take with us. This certainly includes poetry album sayings like “Everyone is the architect of his own fortune” or “Problems are there to be solved”.

These sound trivial, but for our model railway hobby they sometimes fit amazingly well. If your desired model is not offered by Märklin or another manufacturer and a realization seems to be relatively unrealistic too - what do you do then?

If you have hands-on skills and a lot of courage, then do it like Alexey Mark. His unfulfilled dream since his childhood days is the Russian diesel locomotive M62 (class 120 of the East German Railways).

He tells us how he made his dream come true and solved many problems. In the end a wonderful model came into existence. After many, many hours of tinkering and working he lets us witness today how his dream became reality.

Eckard Jehle took a similar path, and today he is presenting his layout as part of this year's main theme. He shares with us how his alpine idyll was created. The conversion of an H0-gauge ropeway to a model that is optically and functionally suitable for gauge Z is a prime example that you shouldn't let setbacks get you off track.

In our third part about the construction of the Himmelreich station diorama you will again get tips and tricks from my editorial colleague Holger Späing. Avoiding problems already during the construction, looking at nature and always close to the original, but not just trying to reproduce everything exactly, leads to results that will surely please you, too.

In our book corner we have found an excellent work on the topic “Büssing at rail and mail services” for you. Whether you are interested in technology, bus enthusiasts or simply enjoy the great pictures, this is a book for everyone.

In our short news items we have once again compiled all the new products that have come onto the market. Changes have now taken place in the media world of model railroads and vintage original railroads, and we are all excited to see what we can expect in the future.

Unfortunately, due to the Covid-19 pandemic, we will have to forgo further trade shows in 2020, as Faszination Modellbau in Friedrichshafen has also been cancelled in the meantime. So we have to wait and see what the further progression will look like and what it will bring us for 2021.

But with the many building tips in this issue, many a project can be set in motion in the cool model railway basement, suggestions can be implemented and on the next walk you can catch a glimpse with your eyes at “Mother Nature” how it should look like in the model.

So again I hope you enjoy reading **Trainini®**!

Joachim Ritter



Joachim Ritter
Editor

Editorial

Introduction 2

Model

A Taigatrommel for Z Gauge..... 4

Prototype

Currently no items

Design

Alpine Idyll in the Baden Area20
Creating the Landscape, finally...33

Technology

Relics of Telecommunications58

Literature (not translated - only in German)

With the Spider on the Radiator Grille66
The fateful Years of the Steam Locomotive.....68

News

Zetties and Trainini in Dialogue.....70

Imprint.....81

We thank Alexey Mark and Eckard Jehle für their contributions and also Jörg Erkel (1zu220-Shop), Götz Guddas, Armin Mühl and the Eisenbahnstiftung for their photo support.

Date of publication of the German language version of this issue: 24 August 2020

Cover photo:

The ocean blue and ivory 144 021-3 is standing in the kingdom of heaven on track 1 with a mixed set of cars. The signal arm has lifted and in a few seconds, it will continue its ascent towards the Ravenna viaduct.

Series 120 of DR from Zmodell

A Taigatrommel for Z Gauge

For the Reichsbahn fans, based on models from the former DDR, there is only a very manageable selection in 1:220 scale. With the exception of the class 243 (from 1992: 143) and the V-300 family ("Ludmilla"), the Märklin program only includes colour variants of existing designs. Alexey "Alex" Mark from Ukraine took a step towards self-help and became a small-series manufacturer under the Zmodell brand. He also offers his latest locomotive model to customers in the EU.

By Alexey Mark. Today I would like to present one of my most complex projects that I have ever tackled: the class 120 diesel locomotive of the Deutsche Reichsbahn (type M62). By the way, it is also one of the ones that took the longest.

Originally, I had planned to present this model in Altenbeken, but due to the pandemic developments, I decided to take additional time and write this detailed report.



Our reader Alexey Mark, meanwhile also active as a small series manufacturer under the brand name Zmodell, has constructed his dream locomotive, the M62. The starting point of the project was a Shapeways model, which for him was too much of a compromise.

The background for this project is a very personal matter: I was born in Donetsk in the USSR, a town that developed around a smelting works originally founded in the 19th century by Welsh industrialist, John Hughes.

So we had a large industrial complex almost exactly in the centre, surrounded by a park, a lake and residential areas. One of the most amazing things there was a double-track railway line that runs through the whole city, including the park and everything else. It connected the steelworks with the main railway station.

This line was very busy. Every day, many freight trains loaded with coal passed by there. And all of them were usually pulled by the well-known M62 diesel locomotives. Most of them were painted dark red, just like the DR locomotives of class 120.



It was not until 2004 that Alexey Mark was able to capture a double traction of the M62 series with open coal cars in the picture. They give an impression of what fascinated him so much about these machines as a child and a teenager.

We lived not far from this railway line, and I could see and hear these trains every day. I often asked my parents to go for a walk in the park and eat ice cream, but my main goal was always to wait for a train and see it up close.

Later, as I got older, I started collecting railway models. In the USSR there was generally not much choice: Gauges H0 and N from Piko, and gauge TT from the Berlin TT Railways (today Tillig). At the end of the eighties, there was no internet, so that everyone only learned about new railway models from toy shops, rumours and very few books.

There was also another area where we could find some “treasures”: flea markets. So I was once lucky to find there the M62, a very rare, almost unique model for the conditions at that time.

It was in used, but good condition. The price was very high, and I remember spending all the money I had at that moment. Nevertheless, I became the happiest person when I could take this locomotive in my hands for the first time.

Many years later, I started my “career” in Z gauge, starting with the large Märklin starter pack 81862. I was very disappointed when I found out that my personal dream locomotive did not exist in this scale.

And in the first years after 2000, the many technologies which today make it possible to produce models in 1:220 scale were not yet available to me. So it was not until about ten years later (2016) that I had the idea of making my own models. The question of which model should be used did not arise: It had to be the diesel-electric locomotive M62!



The purchase of an used model for H0 gauge (rear) once caused feelings of happiness, but also provided the incentive to produce the same model in 1:220 scale (front) many years later.

Resolution of Compromises

My model is based on the locomotive housing of the M62, as offered by Shapeways. Four years ago, I decided to start from existing designs; self-designed models came later.

I must say that if I were to start over with my M62 now, it would be a completely different, much more sophisticated design. However, since some money had already been invested in this project, I refrained from starting a new project, and instead tried my best to push forward the existing design, as much as possible.

I have followed many attempts to build models based on this offer and, quite honestly, due to a number of compromises which were unacceptable to me, none have convinced me.

First of all, it was about the axle arrangement: I didn't like engines with the four-axle chassis of the 110 series (Märklin) or even the six-axle 103 series (Märklin). A wrong number of axles, already optically unsuitable axle bases, or a cast frame that deviated significantly from the prototype were out of question for my favourite locomotive.

The next topic was the lighting, because the Shapeways superstructure is not suitable for installation at all. A lot of rework is necessary to install the head or tail light here. I have seen results of such experiments, and again they did not satisfy me.

Another question concerns the windows. In my opinion, filling the window openings in the locomotive body with an adhesive clear coat is not an option. Windows should look exactly like windows and they should have frames and wipers.



Our reader's M62 diesel locomotive is based on the Shapeways housing shown here in two photos. The photos should help in following his explanations and identifying the critical needs for improvements.

In addition, there are wrong proportions on the model, for example, cabs that are too long, and missing details, mainly concerning the roof, and the locomotive sits too high on the bogies.

How did I behave in this field of tension? In short: I chose a very long, complicated and also expensive path. But that was the only way to resolve almost all of the compromises described, except for the excessive length of the cabs. In the following I would like to describe how I did it.

The Beginning of the Project

First of all, I would like to say that I find even the material “Frosted Extreme Detail” (FXD) from Shapeways unacceptable for Z gauge purposes. It has a too rough surface, which is difficult to polish due to its composition (powder filler and wax as adhesive). Therefore, I am convinced that 1:220 scale models printed with this material cannot meet connoisseur requirements.

But for the start of the project in 2016, I received the locomotive body of the M62 exactly from this material, and, unfortunately, there was no alternative. So I tried to refine it as much as possible. It was carefully cleaned, polished several times, and then coated twice with acrylic primer.

One of the skirts was removed to make the locomotive symmetrical and equally functional at both ends. Then I ordered a small series of copies made of cast resin from my colleagues on site. As a result, I got a very durable, relatively flexible and an almost unbreakable model, which was better than the “master model” of Shapeways.



In order to be able to equip the head lights functionally, the two inner lanterns were drilled and the trapezoidal upper one was cut out. The upper light had to be filed out square, while the outer taillights at the bottom of the model remained without function. Fiberglass and polystyrene were then used to make the inserts, which also serve the function of a light guide.

But even that was only the beginning of a long and costly reworking. I planned to equip the locomotive with a fully functional lighting system, which would also include the upper headlights.

For this purpose I drilled holes in the lower lanterns. The upper top light was also prepared for the installation of LEDs. It was extremely difficult to drill a trapezoidal hole there. But, I was determined not to make any further compromises here.

Afterwards, I filled the holes of the lower lanterns with pieces of 0.75 mm glass fibre material. For the upper lantern I cut out a small piece of 1.5 mm polystyrene on a CNC milling machine – this tiny size was a big challenge!

I also milled out the internal support ribs of the template. They prevented a deep seating of the case on the chassis. I understand the designer's idea, because he probably wanted to create enough space to move the bogies and couplers at one end.

But his compromise was just too big for me. I also removed the running boards under the doors of the same locomotive, because they also had a wrong and very simplified shape.

Now I had to think about a suitable chassis for this locomotive. With the bogie of the class 143 electric locomotive and three-axle bogies of the "Ludmilla," I found the only reasonable option for me.



Chassis and bogies are based on parts from Märklin: The bogies were donated by the class 243 electric locomotive (from 1992: 143) and was shortened a little in the plastic parts. The cast block between the wheels had to be milled off and received a cover. The bogies are from the Ludmilla.

Additionally, the length of the bogie remained short enough and all six axles of the prototype can be reproduced. However, a lot of rework was necessary here, as well. I had to mill out all details from the bottom of the metal chassis.

I also shortened it a bit to accommodate the slightly longer bogies. Then I covered the floor with a self-made cover which simulates the fuel tank. I 3D-printed the cover using SLA technology. This way I can always display them correctly depending on the variant.



The milled central parts of the original electric loco cast block were covered with parts printed in the SLA process, which simulate the fuel tank of the diesel locomotive mounted between the axles.

I also shortened the plastic insulation covers of the chassis at the ends. The bad detailing of the original model was also a disturbing eye-catcher. So I decided to fix this as well and to install at least some additional elements on the roof.

I designed small locomotive whistles, printed them separately and added some additional elements to the roof. I connected the pipes with thin steel wire according to the prototype. I also added a silver painted grille for the silencer cover made of etched metal. Now the roof showed a much better look!

At this point, I would like to make an insertion to the bogies: It can be argued that the M62 locomotive had different bogies than the "Ludmilla." This is basically correct, but only partially.

Early variants of the M62 were equipped with bogies of the older, two-part diesel locomotive TE3/TE7 (implemented as a display model by Editions Atlas). The last versions, however, already had the later Ludmilla bogies, ex-works. These locomotives were mainly used in the area of the former USSR. These bogies were quite popular and were also used on other Soviet locomotives.

Planning of Variations and Supplementary Parts

For my model, which is constructed as described, I have planned four versions:

- Series 120 of the DR in dark red (item no. 99120)
- Soviet Railways (SZD) in green (99121)
- Ukrainian Railways (UZ) in blue (99122)
- Russian Railways (RZD) in the grey-red, current colour scheme (99123)

As expected, the RZD version shows the most elaborate colour scheme, since a sophisticated masking has to be applied for each colour.



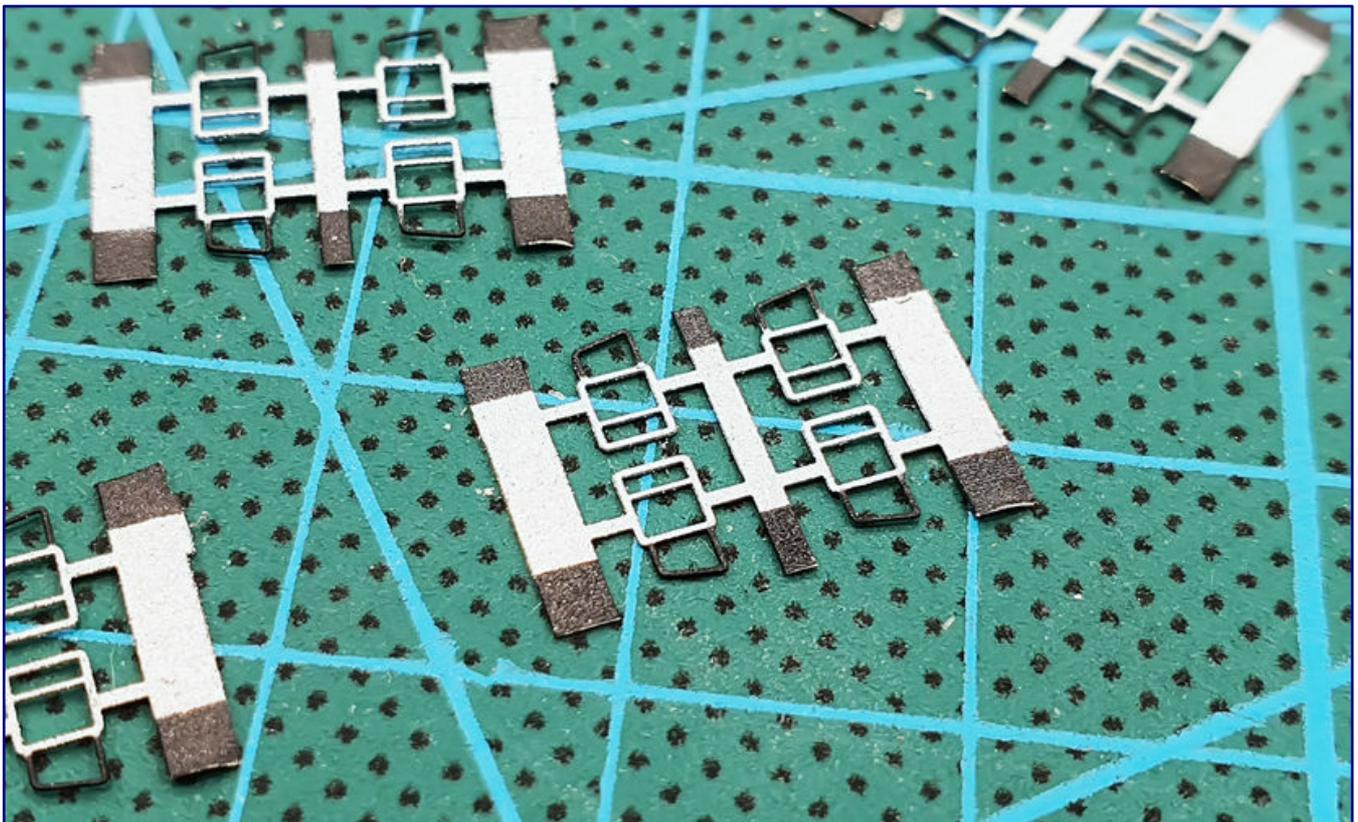
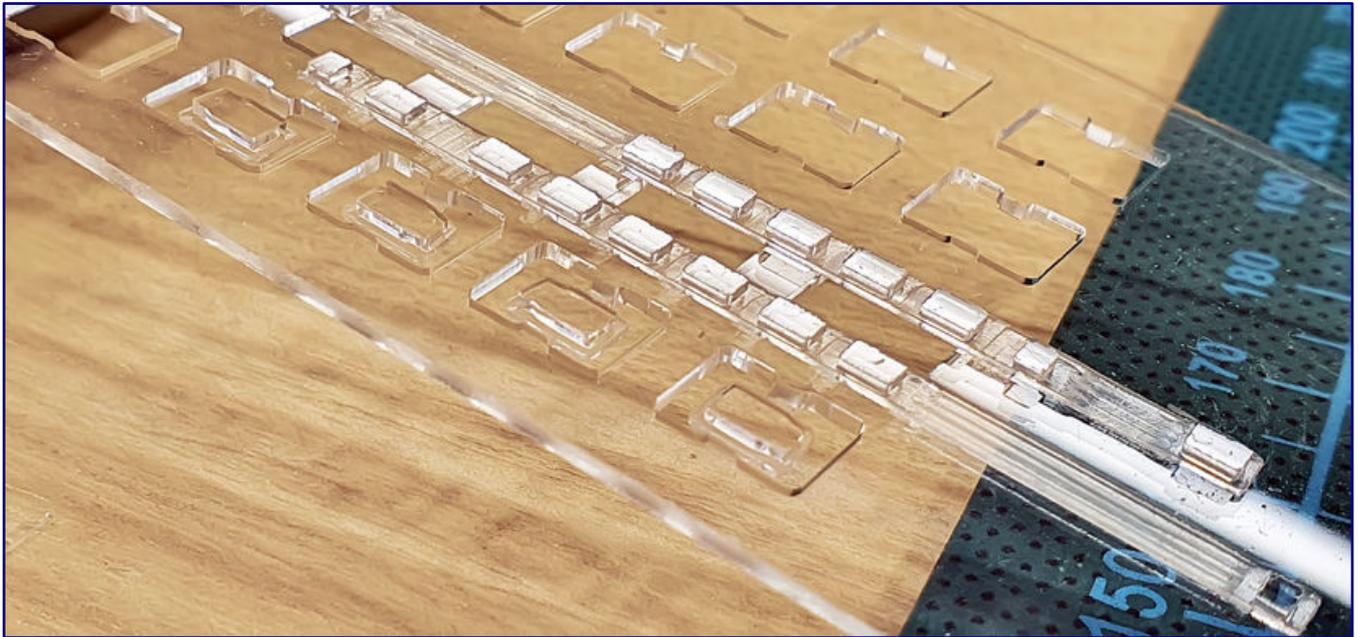
An overview of the milled middle parts of the Ellok-Die housings of all four variants to be produced (from top to bottom): Series 120 of the DR (Item No. 99120), RZD (99123), SZD (99121) and UZ (99122). The painting of the RZD is particularly complex, which is not only due to the lines, which already require a lot of masking work.

Next, I developed window inserts and milled them from 1 mm acrylic plastic on the CNC cutting machine. Window frames were made of 0.1 mm thick etched nickel silver and are painted black.

I painted the frames for the side windows of the driver's cab in two colours: black and silver according to the model. I made the handrails from 0.2 mm thin stainless steel wire. Such small, but also important elements, give my model a high degree of authenticity.

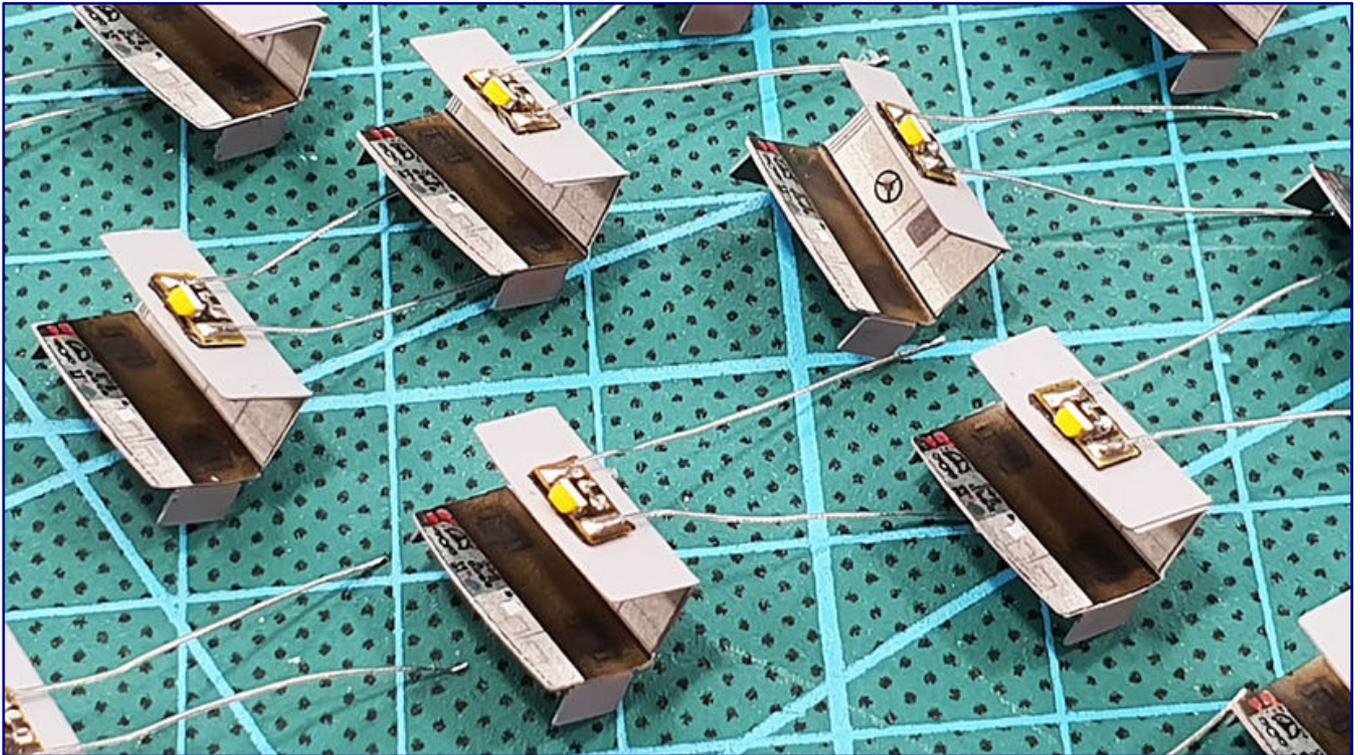
Besides the different bogies, the Soviet versions of the M62 have other differences: For example, the ventilation grilles for the engine room have covers to prevent the engine from freezing in winter. I made

these covers from 0.3 mm nickel silver sheet metal, which is etched, painted and attached to the superstructures.



The window inserts were milled out of 1 mm acrylic plastic (photo above) and were fitted with etched nickel silver frames on the fronts and sides. While they were painted completely black at the front to simulate rubber seals, this was only partially the case with the side windows of the driver's cabs (photo below).

Soviet M62 locomotives also do not have buffers because they use automatic SA3 couplers with built-in damping device. But since the M62 was originally designed for Europe, Soviet versions also have unused buffer plates, which I designed as 3D printed parts.



Alex also showed care and dedication in the reproduction of the driver's cab: They are based on a bent sheet metal part, which was painted grey and provided with prints of the prototype cab. The part is also used to shield the light, as can be seen on the glued-on circuit board with LED for the upper headlights.

It turned out to be extremely difficult to paint the driver's cab sides of some versions. Everything was masked many, many times and then carefully painted with an airbrush. Then, I applied all the necessary inscriptions using the pad printing process.

On the other hand, the road numbers were printed with a laser printer on a self-adhesive foil and applied separately, since pad printing could not be used here.

To reproduce the original colour correctly, I had to create a special colour mixture by hand, to which I added fluorescent pigment powder.

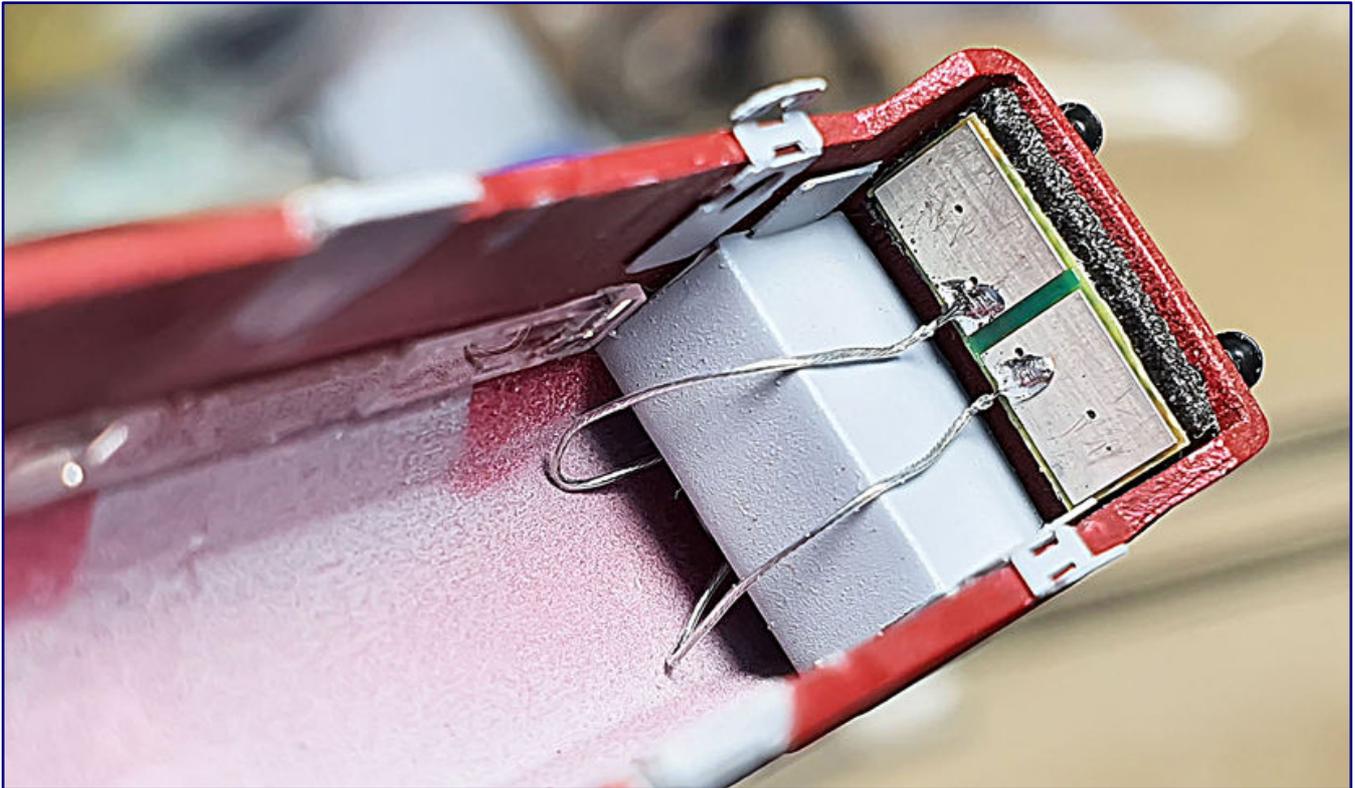
During the development it turned out that it would be possible to add an interior to the driver's cab.

So I also developed a special insert consisting of 0.2 mm sheets. It is bent accordingly and painted grey. I printed the cab elements with a laser printer on self-adhesive foil and attached them inside.

For the upper headlight, I use light emitting diodes, which fit on the upper side of the driver's cab insert. Here, I used lateral emitting, warm white SMD 0602. They are soldered together with a series resistor on a very small printed circuit board and then installed with double-sided adhesive tape.



Now it goes to the lower lanterns: Here, I had to use the same openings for white and red lights. So special dual-colour LED SMD 0605 (warm white/red) seemed to be very suitable.



The circuit board for the lower top lights works with two dual colour LEDs of the SMD type 0605 with warm white and red light emission. Also included are matching series resistors. The breakthrough in shielding the light was made with a double-sided, foamed adhesive tape of black colour, which can also be seen on the photo. Already mounted in this photo are the new steps to the cab (bent and painted etched parts).

I developed a special printed circuit board to accommodate them together with the resistors. By the way, it works in analogue, as well as in digital mode. But, how can I attach it to the housing and avoid unwanted light leaks?

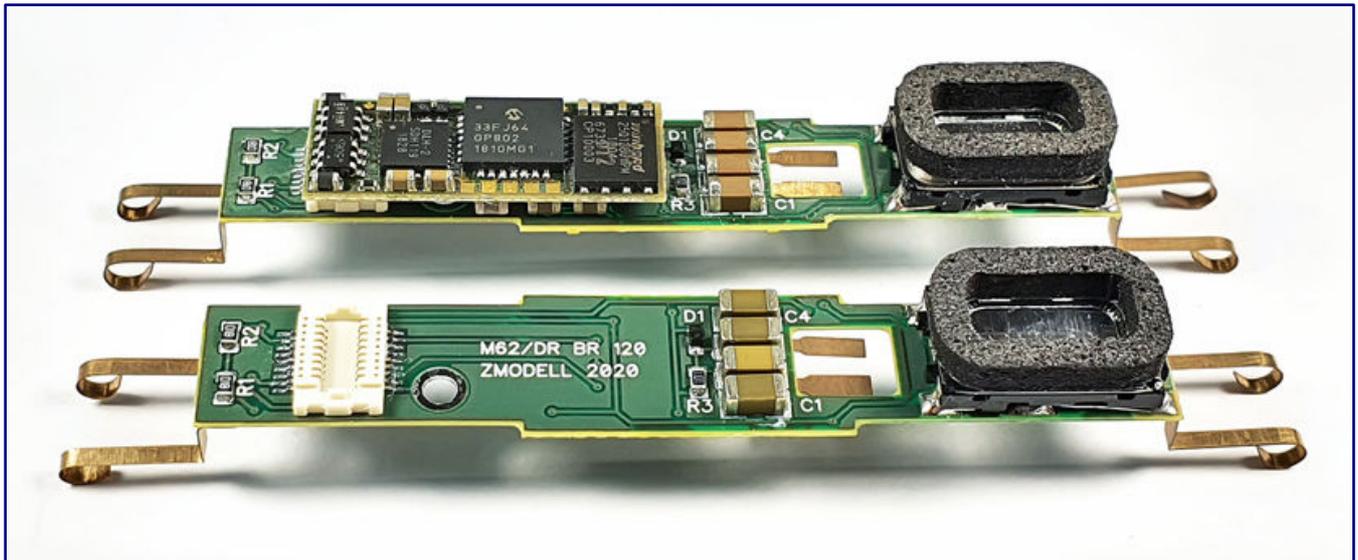
After I had thought about different variants, I came to a simple but effective solution. I made a shielding from black, foam adhesive tape. It is 1 mm thick and has double-sided adhesive.

Finally, the most interesting step of digitizing followed. Originally, I wanted to use LDS206247 from the Velmo digital decoders. But at some point, it shot into my head to go even further.

The space inside seemed to be large enough to accommodate sound components. Fortunately, there was a suitable sound project by Henning Sound for the sound decoder SD18A by Doehler & Haass, the type of decoder I wanted to use here.

Because of the high density of the circuits, it was very difficult to develop a circuit board. But I managed to equip my decoder with all the desired functions, which now include engine room lighting and a current buffer of 400 µF! The circuit board is only 0.3 mm thick.

A small frame made of 2 mm thick foamed ethylene-vinyl acetate (EVA), which is laser cut, forms a resonance body. The achieved volume level is more than sufficient, and I even made it adjustable using decoder settings. The model now has the following digital functions:



Here you can see two of the circuit boards with loudspeaker and resonance body (sound capsule; far right) and the current buffers (left). On the upper one the decoder is already plugged in. The four LEDs for the engine room lighting are located on the bottom side of the PCB

- F0 Directionally controlled headlight/rear light
- F1 Engine room interior lighting
- F3 Horn 1
- F4 Horn 2
- F5 Horn 3
- F7 Pressure valve
- F8 Diesel engine start/stop
- F9 Curve squeal sound
- F11 Conductor's signal
- F13 Coupler clank
- F15 Forced coasting mode
- F16 Tunnel sound fader
- F17 Horn 4
- F18 Station announcement
- F19 Volume decrease
- F20 Volume increase
- F21 Deactivate brake squeal sound
- F22 Apply brake
- F23 Close ventilation grille
- F24 Compressor

I had to change the function assignment offered as standard by the project to adapt it to my needs. Some fine tuning of the power saving functions followed to ensure stable operation even at the low voltage of Z gauge.

Fitting the chassis and body

After the successful digitalization of my locomotive, a task was now waiting for me that caused me the most headaches: adjusting the height of the body, aprons and couplings.

As I already described, the body of the original model sat too high on the bogies, and the locomotive had a distorted appearance. And even the bogies themselves were much too clearly visible.

After the supports on the inner walls of the body have been removed, the body fits correctly on the chassis. Unfortunately, there was no more room for couplers and the ends of the bogies were no longer accessible.



A special solution was required to reproduce the model's apron and to keep the model coupleable on both sides. Like the locomotive models from FR Freudenreich Feinwerktechnik, the "Taigatrommels" (Taiga drums) were fitted with a coupling hook made of bent etched sheet metal, which is mounted in the coupling socket of the bogie frames.

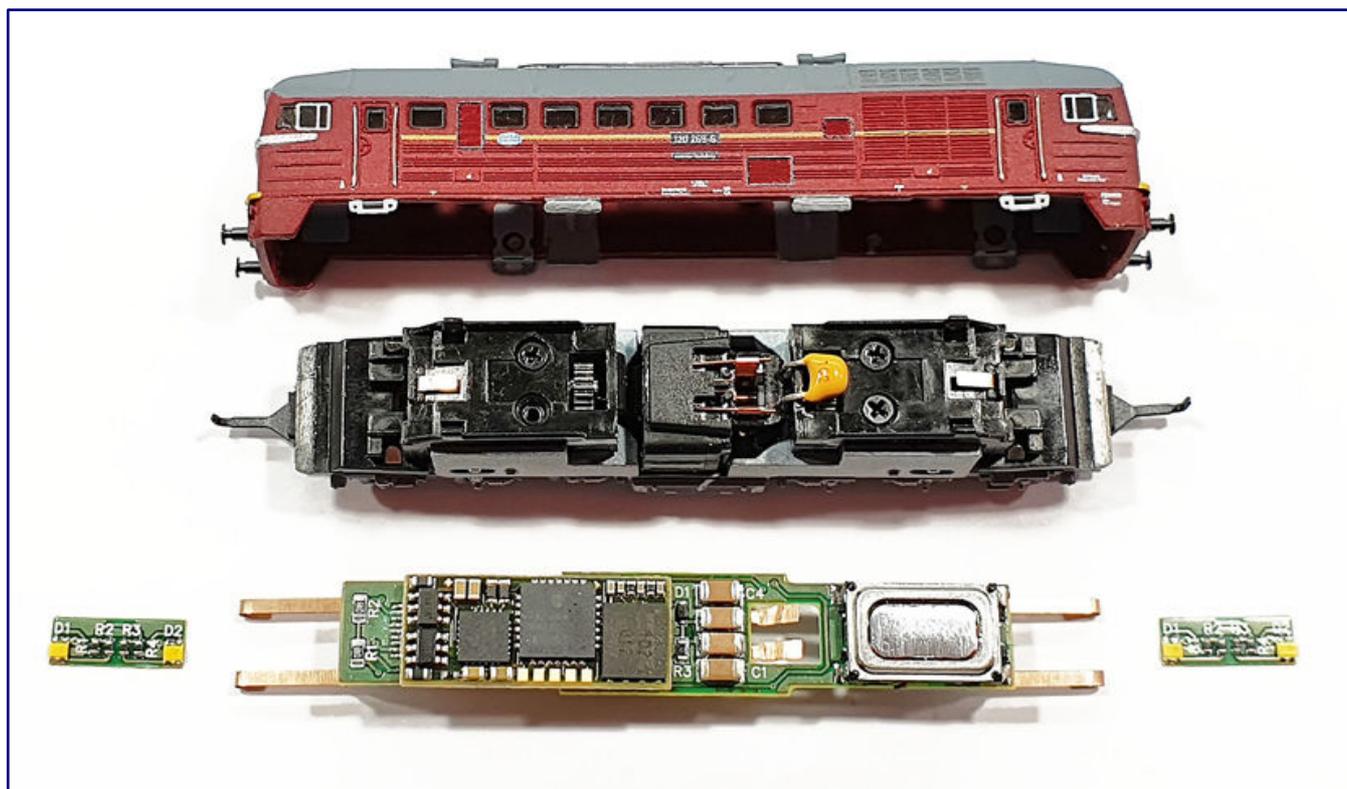
There was only one way to solve this problem as well: I had to develop new couplers. Inspired by the metal couplers from FR Freudenreich Feinwerktechnik, I decided to use a similar approach here.

So, I developed similar couplers and made them from 0.3 mm thick etched metal. Then, they were bent and painted black. I had to cut the bogie frames a little bit to size.

These new couplers proved to be sufficiently strong and passed all tests successfully. I could not find any accidental uncoupling, which solved another problem.

Finally, I developed a replacement for the incorrect and long steps. I made new parts from 0.2 mm sheet metal and painted them according to the prototype. Installed at the location, and they now show the correct shape, are very thin, and also allow the bogies to turn freely.

continues on page 18



Here you can see once again the four main components (housing, chassis, decoder board and light boards) that had to be built for this locomotive project (photo above). It was worth the effort, as the front with the attached headlight cover and the cab interior view (photo below) proves.

Nevertheless, there was still one important part that was still missing: the front skirts. The system couplings used since 1972 always make it difficult to reproduce elements such as side or front aprons. But I have found a suitable solution for this, too, which is easy to install and remove, and also allows the coupler to move freely.



The view from below illustrates the guidance of the coupling hook in the bogie and the need for an apron with slot for sufficient freedom of movement.

Finally, a few words about packaging: I use laser-cut parts made of 4 and 8 mm thick foamed ethylene vinyl acetate (EVA), which I use to make soft inserts for my boxes. The product also includes a user manual.

Some more statistics

My model of the diesel locomotive M62, as I presented it here, received a total of 14 separately applied parts made of etched sheet metal. For lighting and electronics I had to design and produce three different circuit boards.

One of them carries the decoder, the other two are for the locomotive lighting above and below, i.e., they are used twice for each model.

So far I have produced the green version of the Soviet Railroad SZD and the dark red version of the DR.

The other two versions will be finished later.

I am not planning any further versions so far, because this model is very complex and time consuming in the production process.

Special features of this model presentation and recommendation

In view of the difficult and time-consuming customs clearance procedure for importing the test model from Ukraine and the subsequent re-exportation for return to the manufacturer, we examined alternatives.

Unfortunately, in view of the known circumstances arising from the Corona crisis in spring, it was not possible to borrow a privately owned model from within the EU's internal market in time.

However, as we no longer wanted to withhold a report from our readers, we decided to let the provider have his say as an alternative. He himself has described characteristics, as well as remaining compromises, honestly and verifiably.

Unfortunately, we had to do without the most important measurements and electrical values of an operating test. Here, we now rely on our own experience with the previous model of the 155/250 series and the descriptions of reliable third parties.

We therefore nominate this model of the DR class 120 diesel locomotive (Item No. 99120) as the best new release of the year 2020 in the category locomotives.



And that's how the first two versions, which are already available, look finished: Class 120 "Taigatrommel" of the Deutsche Reichsbahn (99120; photo above) and M62 of the Soviet Railroad SZD (99121; photo below)

A big thank you to Jörg Erkel (1zu220-Shop) and Claudius Veit (Velmo). They have helped me a lot with advice and support in procuring the decoders and fine-tuning the D&H decoders and sound projects!

All photos: Alexey Mark / Zmodell

Kontakt zum Kleinserienhersteller:

<https://www.facebook.com/Zmodelltrains/>
[zmodell\[at\]ukr.net](mailto:zmodell[at]ukr.net)

Zulieferungen und Hilfen erfolgten durch:

<https://doehler-haass.de>
<https://velmo.de/>
<https://www.1zu220-shop.de>

Inspired by Bernhard Stein

Alpine Idyll in the Baden Area

For this year's annual focus on "reader layouts", our editorial team has set itself the goal of presenting as colourful and representative a picture as possible of Z gauge: Small and large layouts, beginner and advanced works, domestic or foreign motifs, analogue and digital operation, and even unknown home layouts. Our current portrait falls into this latter category.

By Eckard Jehle. Since my early youth I have been fascinated by model railroads. This probably also resulted from the fact that my parents' house is located in the central Black Forest not far from a railroad line and even as a little boy I liked to watch the big trains every day.

So it was - as it was common at that time - my big wish to get a small Märklin train (of course H0 gauge) as a present for Christmas, which one day came true. Over the years, the little train set grew a little bit - mainly with saved pocket money - and I also had the opportunity to make my first attempts at building a layout.



Wide-swung curves and lush landscapes, even with high mountains, were reason enough for our reader Eckard Jehle to opt for Z gauge.

I benefited from my grandfather's existing carpenter's workshop along with tools and machines, where I was able to familiarize myself with the wood as a material and its processing for my purposes.

I gave the H0 layout as a gift to my nephews many years later. At that time, I soon realized that the next generation was unfortunately not as interested in model railroading as it had been in my younger years.



A three-part rail bus set leaves the small village train station Rodach in front of the enormous scenery of the alpine background, which contributes considerably to the depth and also height effect.

Due to my personal circumstances, model railroading also fell into a deep sleep for several years. At some point, however, I began to be interested in model trains again.

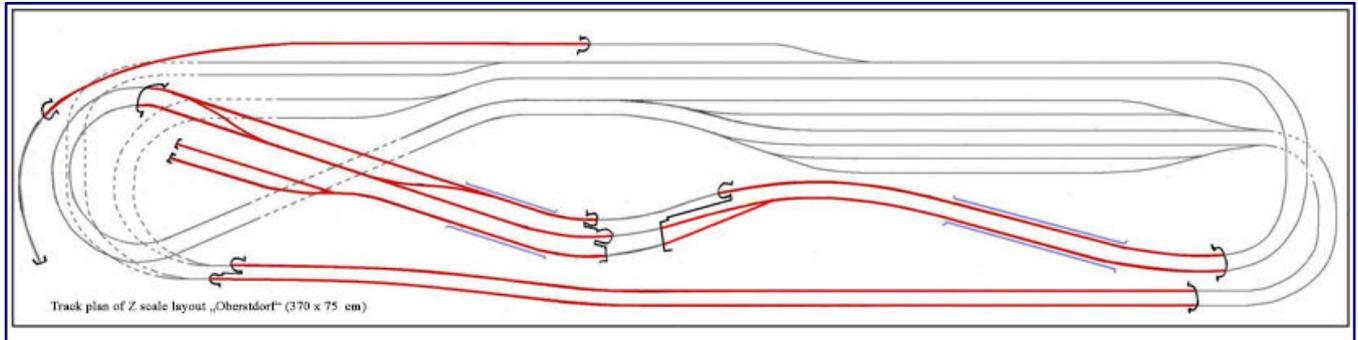
continues on page 23



Narrow curves required for the operation of this alpine facility could be camouflaged by tunnel runs. In this way, the long passenger coaches in the TEE carriages behind the 103 series locomotive always cut a fine figure.



I especially liked the Z-gauge, which Märklin had brought onto the market in the meantime, which corresponded exactly to my ideas due to the smaller space requirement. The resulting possibilities for building longer tracks and their surroundings stroke a chord with me.



The track plan of the 3.70 x 0.75 m rectangular layout shows the routing of the parade track and the station level. The location of the two staging yards and the deliberately different radii in visible (red tracks) and non-visible areas (grey tracks) are also very clearly shown.

Picture on page 22:

This picture with (German) crocodile shows the convincing effect of the design and the at that time appropriate choice of a Sommerfeldt catenary.

So after I had decided to build a new layout in scale Z, I started to plan. This phase lasted about a whole year. Inspired by the technical literature of Bernhard Stein, a well-known layout designer at the time, I wanted to build a landscape that looked as realistic as possible.

In order to avoid trains with long passenger coaches apparently having to squeeze around corners, I decided on a mountain railroad where I could make most of the tight curve radii disappear in tunnels.



The passenger coaches are permanently connected with a self-built close coupling and cannot be exchanged individually. So they give a closed train image when passing by, as you can see here on a special steam trip.



Due to a lack of abundant supply for the Z gauge in the nineties, many well-known model kits of the large equipment manufacturers can be found on the layout - like here the mountain village including the chapel by Kibri. And there were also many things that required selective improvisation.

In order to give the passenger trains a more elegant look, I also connected these cars with a self-built close coupling. They run through all tracks without any problems. However, it is no longer possible to exchange the cars, which I gladly accepted in favour of a more realistic appearance.

Fresh to work

At the time the system was planned in 1990, the range of equipment available from specialist dealers in nominal size Z was unfortunately not as extensive as it is today, when it is also strongly supplemented by Internet retailing. Because of this, there was a lot of improvisation in the equipment of my system.

For example, installing the original Märklin catenary wires was out of the question for me because of their much too high material thickness. A Sommerfeld catenary wire was unfortunately also not available for gauge Z, so I decided to use the Sommerfeld catenary wire size N. Combined with Märklin masts, I soldered the wires together. But they remained without electrical function.

I removed the electromagnetic drives from the existing half-barriers from Märklin and replaced them with switch wires and levers, which are connected to two H0 turnout motors from Lemaco underneath the layout. This creates an authentic opening and closing of the barriers. The control by the trains is done, also on the opposite track, via switching contacts in the track.



A class 120 Interregio passes through Märklin's half-barrier railroad crossing, which has been fitted with a Lemaco motor drive so that the barrier beams rise and fall in accordance with the original.

My layout with the basic dimensions 370 x 75 cm was created between 1990 and 1997, including the planning. The self-modelled landscape after an alpine motif is the result of my imagination and was built in a classical frame construction with aluminium wire mesh and model plaster.

Divided into five electric circuits, it consists of a double-track main line with station and two shadow stations as well as a single-track secondary line designed for commuter traffic.

A total of 19 turnouts and 15 signals were installed. Analogue control is provided by two track-set signal boxes (Heki modules) or 65 Heki modules, either fully manual or using two different automatic sequences.

Heavy sections of terrain can be removed for maintenance and cleaning purposes or for possible transport. The acrylic glass panels, which are mounted on a square timber frame and serve as dust protection, can also be removed.



Around 300 miniature figures were used in a deliberate way to create lively scenes. A small selection with racing cyclists, campers, windsurfers and sunbathers can be seen here.



The view of the left (top picture) and right half of the layout (bottom picture) gives an overall impression of this large layout. It is protected from dust by removable acrylic glass panels, which were of course not mounted for the photos.

I am operating a total of 22 traction units and 65 passenger and freight wagons. Partly I have also retrofitted LED lighting in trains and coaches. A Busch noise module can be operated manually or can be activated by the trains.



Thanks to illuminated houses, lanterns and, where necessary, retrofitted interior lighting in trains, the night-time effect is also amazing. This is demonstrated here by the Intercity Experimental, classified as class 410, later called ICE-V.

I had to adjust some buildings to gauge Z compatible proportions myself, because there was no offer that satisfied my individual needs in the relevant places. About 50 road vehicles and around 300 human and animal figures by Preiser animate the events on the site.

Option to sell the layout

The builder may intend to sell his layout in its entirety to a suitable interested party.

The layout is located at Pfinztal near Karlsruhe. Further details can be requested by contacting his e-mail address, which we provide at the end of this article.

If a colour after-treatment was sufficient for the cars, most of the figures were painted by me completely by hand. An important role plays of course, particularly in the Alps up to the tree line, conifers. It is hard to believe how many copies can "disappear" on a layout of this size - here there have been about 1.850 copies!

A cable car ride as the highlight

A particular challenge for me was the installation of a cable car, which I still had left over from my old H0 stock.

Since my layout is an alpine motif, it was obvious that the cable car model "Kanzelwandbahn" from Brawa should be integrated somehow.

However, the problem initially remained that the cable car was too large. Therefore I had the idea to reduce the distance between the ropes by using N gauge masts.

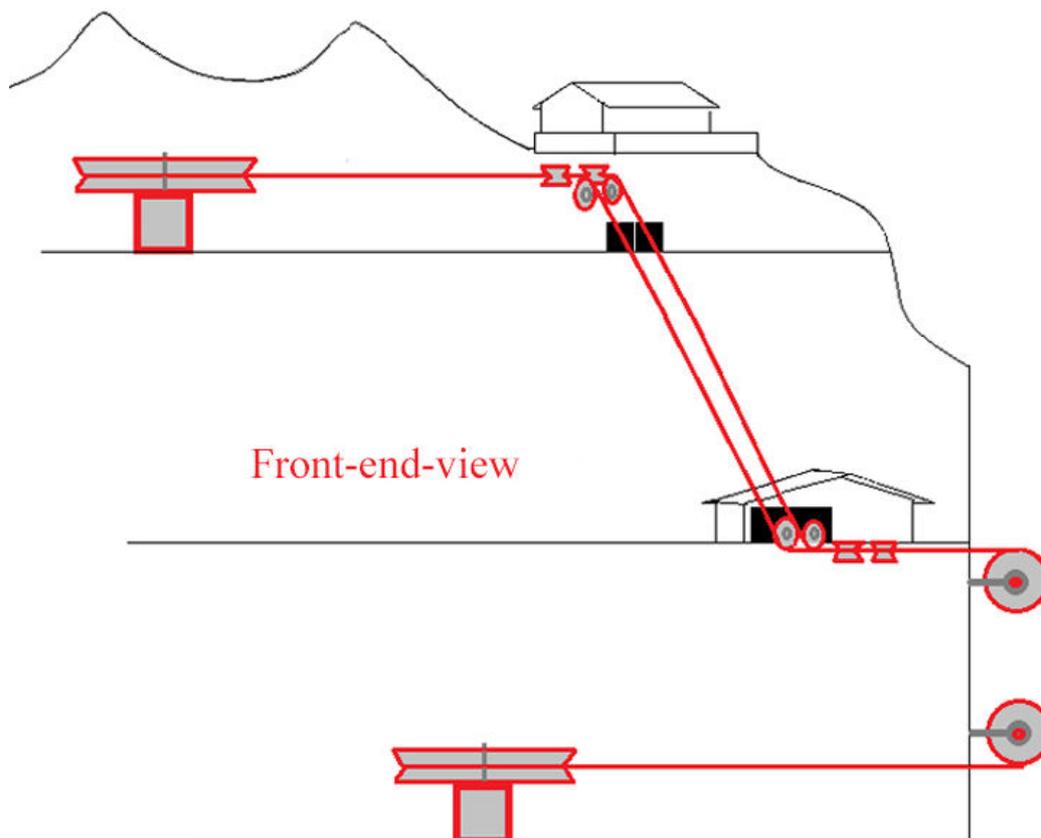
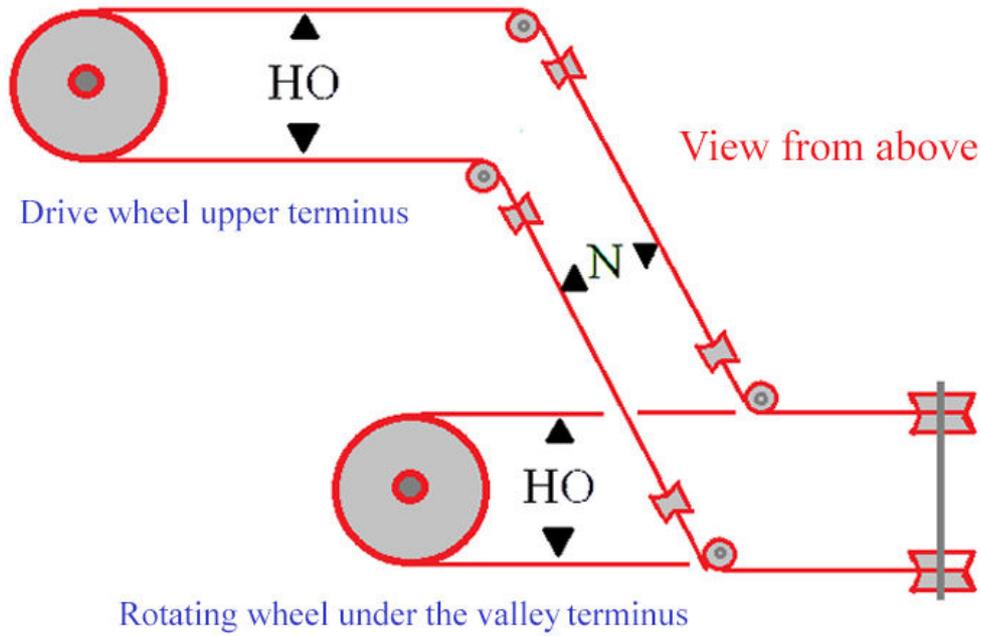
This could only be achieved by deflecting the rope guide to the required mast width.



The view up to the upper terminus of the cable car illustrates the height development of the "Oberstdorf" layout.

continues on page 29

Cableway - course



In addition, the buildings of the upper and lower terminus had to be adapted for visual reasons. Especially an upper terminus in H0 would not look very nice on a Z scale layout.



The class 220 diesel locomotive pulls away with its express train over the bridge that spans the lake, while high above the long-distance train the cable car floats by, taking summit climbers to the upper terminus.

For this reason, I decided not to use the original mountain station building at all, but to use a suitable flat residential building in 1:160 scale, which I also scaled down accordingly. The drive and the deflection of the cable car I installed directly into the mountain underneath this building, but in a way that the view of the spectator of the cable car is not directly directed to it.

Similarly, I could not use the lower terminus in its existing size without modification. Therefore the basement of this building was completely removed by me, with the effect that the cable car could no longer enter. So its entrance had to be lowered accordingly.

As there was not enough space for the deflection wheel here either, I relocated the cable guide first completely to the right outside of the layout and then back again into the lower layout area (see sketch). The ropes were deflected by fitting small metal angles from the DIY store - combined with axles and specially manufactured brass pulleys.

In its original condition this cable car is known to operate in a straight line as a circular cable car with several gondolas for two persons. Since this round trip is no longer possible due to my adventurous construction, when reaching the upper or lower terminus a stop had to be made with a subsequent switching of the operating current.



While the upper terminus was replaced by a flat, modified residential building on a scale of 1:160, the lower terminus - it is hard to believe - could continue to be used after major adaptations in which it lost an entire floor.

I succeeded in doing so by installing two reed contacts and a toggle module. The existing two-person gondolas, which were also too large, were replaced by - only two - gondolas of N-gauge, which now operate in the opposite direction. The size-corrected cable car including the upper and lower terminus and its course fits well into my Mini-Club layout.

However, when putting my construction into operation I first had to find out that the rope slipped through due to the multiple deflections. I then prevented this by wrapping the drive wheel with a cut-out, narrow strip from a balloon. This artificial coating provides the rope with a continuous grip. Fortunately, the cable car I reconstructed in this way still works today!

All photos: Eckard Jehle

Contact the builder and owner:
Suejehle[at]aol.com

Materials used:
<https://www.brawa.de>
<https://www.busch-model.info>
<https://www.heki-kittler.de>

<https://www.maerklin.de>
<https://www.preiserfiguren.de/>
<https://www.sommerfeldt.de>
<https://viessmann-modell.com/kibri/>

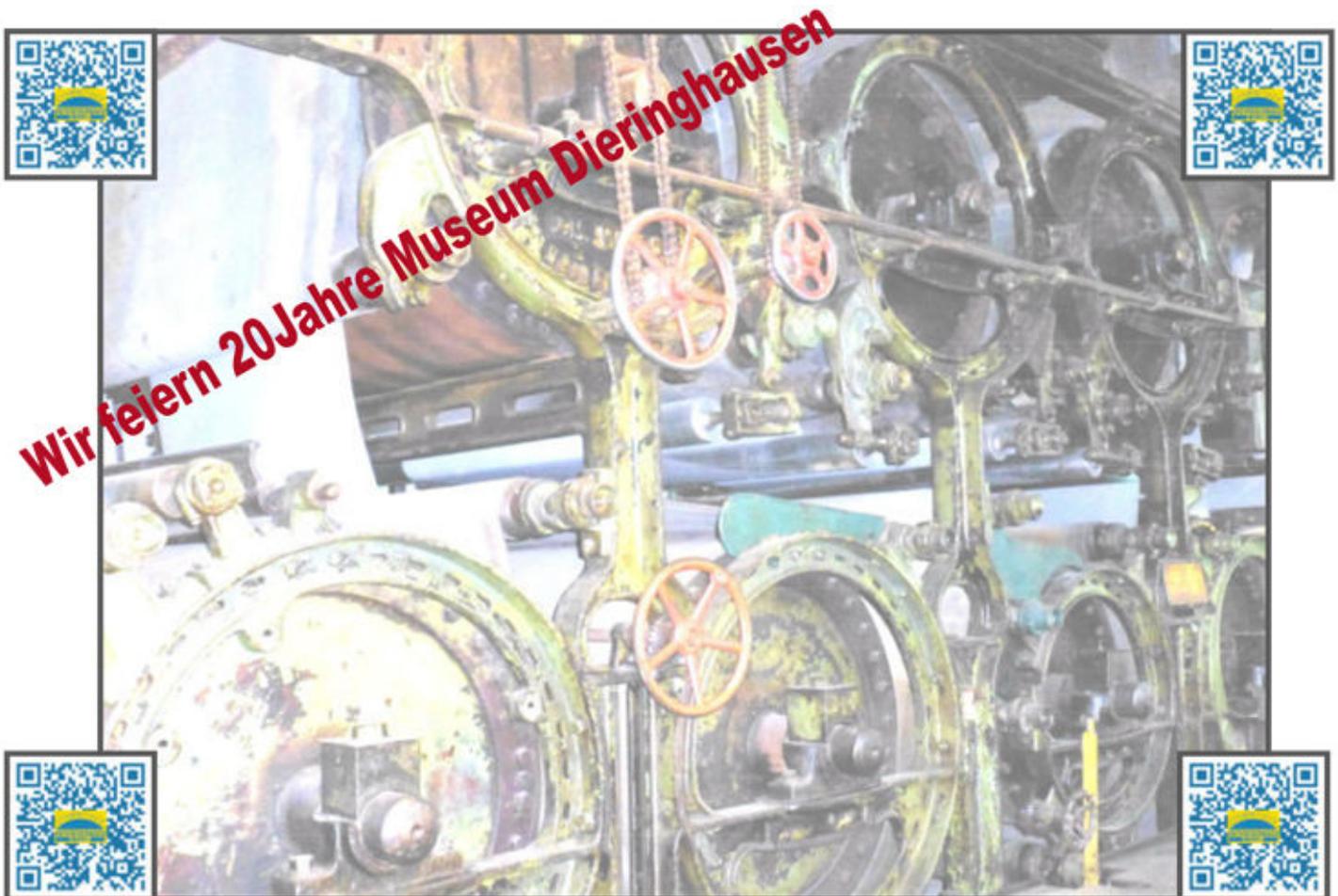


At the end of the story we show two motives with an almost idyllic effect: The 220 with the express train is staged by the fish-belly bridge in front of the mountain chapel (picture above). The 151 with a heavy freight train crosses the parade track underneath this bridge and offers a view of tunnel entrances, a rockfall protection gallery and the combination of home semaphore and approach semaphore, which was as well not available in this version.

Stammtisch - Untereschbach

Jubiläumspräsentation

Spur Z Modelleisenbahnen und Zubehör



*In der Dombacher Maschinenhalle PM IV
Im LVR Museum in 51465 Berg. Gladbach.*

*Am 12.06.2021 von 11:00 Uhr - 18:00 Uhr
Am 13.06.2021 von 11:00 Uhr - 18:00 Uhr*

www.Stammtisch-untereschbach.de

Station Diorama “Himmelreich” (Part 3) Creating the Landscape, finally...

In today's chapter we will first tackle the construction and shaping of the landscape of our diorama. This will be followed by adding greenery, a step in layout building that is perhaps the most satisfying for many model railroaders. So at last there will be progress that is also visible to the casual observer! Last but not least, we will breathe life into the scenery and station by adding little humans and animals.

In the last part of this diorama engineering series, we built a base for the diorama in the form of a strong wooden box. Recessed longitudinal struts made of wooden slats add stability to the construction and at the same time form the supporting base for two terrain levels.

However, this does not mean that the landscape we want to build today will later simply represent two plateaus or that it will be recognizable in this way. Flat surfaces are very rare in nature and usually of limited size only.



Our diorama is nearing its completion. Once finished, it will be an attraction not only for father and son, but for others as well. By then, this heavy class 85 will no longer be part of it: it will become obsolete, once the electrification works for the 15 kV alternating current operation on the “Höllentalbahn” are completed.

Continues on page 35

The prototype blueprint for "Himmelreich": A station moving with the times



Two photographs, taken 17 years apart, intend to illustrate how difficult it is to choose and reproduce a specific historic situation for a model. The appearance of Himmelreich station has changed in many ways due to the renovation of the station building, the dismantling of tracks and changes to the catenary system. When E 44 1152 leaves the station on June 11, 1962 (top), the station still has all of its original tracks. The situation is completely different when 139 554-0 leaves with its express train on August 7, 1979. Photos: Walter Hollnagel (top) / Peter Schiffer (bottom), both from the collections of the Eisenbahnstiftung

Where a landscape forms a horizontal plane, human hands have usually been at work, as here in the immediate vicinity of the railroad station. When preparing the ground for tracks and platforms, planners avoid slopes as much as possible, let alone any irregularities in the surface. We are all familiar with the extensive earth movements that such a construction site requires.

Our guiding principle should therefore be the chaos of nature. Tectonic unevenness and other surface-forming factors from the fields of geology and other sciences should also be recognizable on our diorama and make for an authentic look. As the old saying goes: "First was the landscape, then came the railroad".

With that let us turn to the things on our to-do-list: The upper base for the track and platform area does not require any additional landscape works due to the fact that the real-life station sits on a completely level area.



The starting point of our work today is an almost finished level surface area around the station to which we do not need to add any further landscape features. Before we start, we have placed track power boxes from Erbert Modellbahntechnik (Item nos. 044310 & 044311) in small pre-drilled holes right next to the signals.

On the other hand, the lower base supporting the areas behind the tracks and station area to which the access road (built in part 2) leads from the station forecourt, will feature sloped terrain. Our main first task therefore will be to determine and build the rough shapes of the terrain.

However, we want to also allow for a bit of artistic freedom here, because the landscape should be visually pleasing and be in harmony with our pre-defined photographic lines of sight. This is of a higher priority to us than slavishly trying to reproduce a precise scaled down copy of the original!

In order to build the terrain structure, we first create some mounts. In modern model making, different types of hard foam boards have largely replaced the classic "wire mesh and plaster" technique and have enabled the construction of lightweight layouts which is of great advantage when transporting them to trade fairs and exhibitions.

On this occasion we have chosen 1 cm thick XPS boards (abbreviation for "extruded polystyrene"), which, depending on the manufacturer, come in different colours (yellow, pale green or light blue) and are also sold under the trade name Styrodur.

We cut the board into several pieces of roughly the right size for covering the areas of the lower level of the diorama base. Then we pile up two or three layers of foam pieces in all those areas where we want to create hills or mounts, such as in the location of the future spruce forest at the right rear corner of the diorama.

The "3-in-1-Multitool" (Art.-No. ST 103) from Star Tec Products is of great help when working on the foam boards. This battery operated tool offers includes two tips which are useful for our purposes: a styrofoam cutter (heated filament) and a branding iron, which is actually intended for wood branding.



The large XPS board is pre-cut into smaller pieces using a scroll saw and further shaped with an electric hard foam cutter. The 3-in-1 multi-tool (ST 103) from Star Tec Products is an excellent tool for this type of precision work: it can be used to make panels thinner, to cut diagonal shapes, and also to cut smaller pieces from foam blocks.

The hot filament glides through the foam as if through butter and allows for rapid progress. The branding iron is useful for pre-cutting or cutting edges at an angle. However, we still cannot entirely do without a sharp kitchen knife and a scroll saw. The combined use of these tools reduces the amount of statically charged and often difficult to remove foam crumbs.

The roughly adjusted boards and parts are then joined between each other and with the plywood base with the help of white express glue. We have chosen a large bottle of Uhu wood glue for this purpose and for the convenience of its large and easy to unscrew lid.



The cut-to-size XPS board parts are covered with the help of a brush with UHU wood glue across their entire surface, glued and stacked in to position so that the landscape can eventually be carved out from this rough structure.

This facilitates the use of a wide bristle brush for applying and evenly spreading the glue across the surface. Leftover XPS foam pieces will later fill gaps between individual pieces that are too large to be filled with putty.

After drying, the next and decisive step will determine the final shapes of the landscape. First, we slightly sand any smooth Styrodur surfaces with dry sandpaper. In this step we also eliminate any larger edges and try to create smooth transitions between the different pieces of foam.



The final rough shape of the terrain is carved with a sharp knife, the 3-in-1-multitool with two different attachments and sandpaper. After that some thorough vacuuming is required before proceeding further.

Finetuning the landscape

But the decisive difference to other construction techniques is the type of filler we choose for the subsequent steps. Many model railroaders use plaster here, regardless of the chosen construction method for their landscape. The smoother it is applied, spread and possibly even sanded down, the less convincing the appearance of the finished landscape will be in the end.

In many experiments over the years, our editor Dirk Kuhlmann has found an alternative, whose results have convinced our readers time and again. We should mention that it is more expensive, but also clearly superior to plaster. The expected outcome therefore more than justifies its costs!

In order to model earthy surfaces, we are working with a rather coarse wood repair putty from Molto. And we will not even try to spread it too smooth. When dry, we can paint, stain, glaze or even spray paint the material with a spray can.

But before that, we still have to deal with an unexpected problem: In sanded areas where the XPS board parts have lost their embossed honeycomb structure, the hold for the filler is not sufficient. Spreading the fairly firm filler material onto the XPS foam requires mechanical forces that tear it right away from the sanded and relatively smooth surface.

Without further ado a test is carried out with another and quite new Molto product, the Moltotill woodchip wallpaper repair which has been developed to adhere to smooth walls when covering gaps and holes in woodchip wallpaper. It should therefore also stick to the type of material we are dealing with in our project and will deliver, at the same time, the coarse surface texture we are after – a product tailor made for solving our problem!

And so, things are progressing surprisingly quickly after all, in this phase of the landscaping works. We just apply a coat of this paste in the critical areas and wait for it to dry. Then we achieve the desired result with the wood repair putty and no longer have to worry about parts of the surface detaching from the base later on.

Some joints, especially along the road, are also closed now. And we can now also model the dirt road, which we had discovered late in the design process on an old photograph. In both cases we will use fine wood putty (again from Molto), which is applied in a similar way to plaster, but which gives us much more time to work on, before it starts to set.

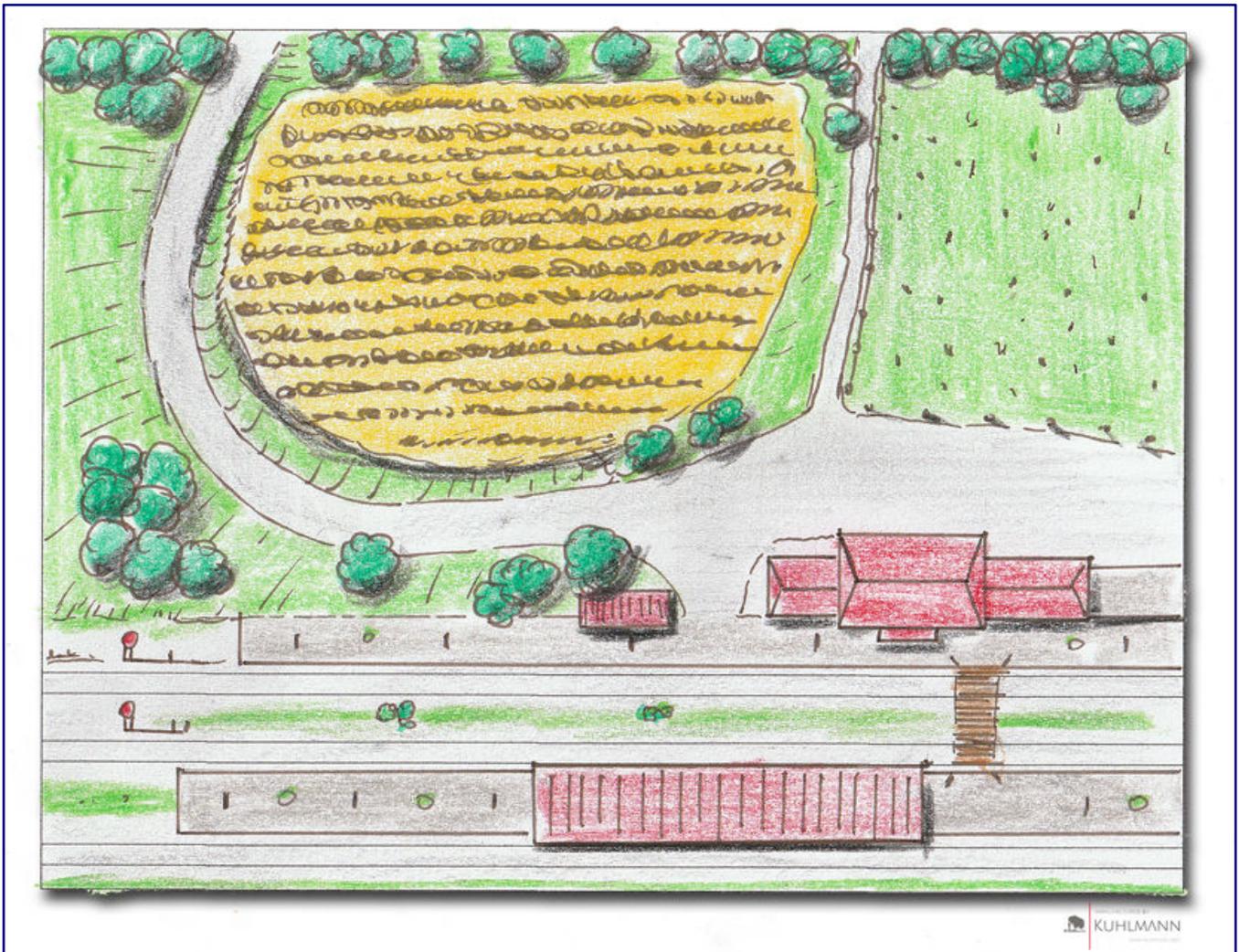


The terrain surface is modelled with three different types of putty from Molto, as described in detail in the text. We were quite happy with the outcome obtained by using these products.

And we can indeed do with some extra time, given that we not only want to create smooth and harmonious looking transitions between the different landscape features. An authentic looking dirt road also calls for tractor tire tracks. In our model, these are created by rolling a disused tractor model or simply the wheels from a cannibalized model over the still soft putty.

We use the time until the putty is dry for some smaller works in the vicinity of the railway station. Here we still have to install technical safety features for the secured crossing between the main platform on the station building side (track 1) and the island platform (tracks 2 /3). Only in a few exceptional cases, when the train traffic was so low that supervision was sufficient, the German Federal Railways did allow for unsecured crossings.

Historical photographs of Himmelreich station suggest that the situation on site must have changed several times during its history. That leaves us with some freedom of choice here and we finally opt for installing a red and white barrier as certainly the most conspicuous form of the ensuring the safety of passengers and personnel (on platform carts). In terms of visual interest, that is probably the best solution, because otherwise we can save ourselves the effort.



Our editor Dirk Kuhlmann made a sketch of how the dirt road, which we only added to the design in the course of the build, is to be integrated into the landscape. However, in the end we decided to give this road a curvy course in order to improve overall visual dynamics and for the sake of creating better photo opportunities.

The barrier comes from a Faller level crossing kit (282730) and we shorten it with a special side cutter (Fohrmann). Since the bearing parts of the barrier cannot be fixed in a base plate, we use an adapted polystyrene U-profile (Evergreen; available from Faller) to keep the parts at their correct distance and which no longer visible after painting. The barrier is glued in place with Bindulin instant glue.

This now brings us back to the ballast which is still a bit too pristine. To make sure it doesn't stay that way, we do some weathering by applying a wash mixed from black acrylic paint, water and a drop of washing-up liquid with the help of a fine hair brush. Once dry, the effect is amazing.

Moving on after a good night's sleep

The next day, the filler and ballast are dry and the landscaping works can continue. First we will tackle the colour of the ground which still presents itself in the neutral grey of the putty material. Whilst still better and much less obtrusive than snow-white plaster, it still is no suitable base colour for grassy areas and other vegetation.

One should always keep in mind that the colour of the underlying material should not shine through in the case of minor damage to the surface. Even if disaster should strike - let's just think of something happening when setting up the layout for an exhibition lasting several days – the damaged area should not immediately attract attention and allow us to gain time to do the repairs later at home and in peace.

So we need some earth colours plus, for more exposed areas, stains for the ground to absorb the colours. For all other areas or as a coating after staining, Noch offers acrylic spray paints (61172 / 61173) as well as acrylic paints (61189) for brush application.



Acrylic Spray from Noch in three shades of colour are used to prime the surface areas. In some places this is supplemented with brushed on acrylic paints. The untreated area on the left and the already coloured areas on the right illustrate the difference.

We use both types of paint, but do thin the acrylic paints with tap water before applying them as a type of wash with the help of a brush. A few dark green areas (Noch 61175) can't hurt; although not strictly necessary, they do help the builder to imagine the finished landscape.

If some of this base coat should shine through later, it would even make for additional visual interest. And in those parts where we will apply static grass, different tones in the substrate can create the impression of subtle and natural looking colour differences in the grassy areas.

Particularly exciting is the construction of the country road, which we want to pave with cobblestones that used to be the norm in the past and that only gradually disappeared under asphalt from the 1960s onwards. This will also be the opportunity to gain experience as we want to try out a still quite new technique. We will use a novelty item which was announced in a similar form also by Microrama at this year's Nuremberg toy fair.

Today, however, we use the embossing roller from Railnscale (93535; distributed by Modellbahnunion), whose paving stone size and roller width are also suitable for Z gauge. The package contains two different items, of which we choose the one without grooved track (6.5 mm gauge).



The cobblestone road is built with DAS modelling clay. We start by cutting single pieces cut off, roll them out with a rolling pin and then cut out strip with width of the road (top). Any visible colour traces from the material can be easily wiped off with a wet sponge or towel. The pre-cut strips are then placed on the roadway and joined together at all ends until the entire course is covered. Finally, the embossing roller from Railnscale (93535) is rolled over the clay's surface to form the cobblestone pattern (bottom).

In addition to the tools, we also need a suitable material for modelling the road's surface. We chose a terracotta coloured modelling clay from DAS (also available at Modellbahnunion).



In no time at all, the entire course of the station road was rolled and, thanks to our technique, took on the desired appearance of a very bumpy old road - an appearance that we will soon reinforce with patches.

We first evenly roll out this clay on a clean work surface and with the help of a rolling pin.

Afterwards we cut out strips in just the right width of the road, i.e. the width of the embossing roll, and lay them out on the prepared wooden route of the diorama. Several such strips are required for covering the entire length of the road, and we join the different strips by applying some light pressure at their ends before pushing the embossing roller of the soft surface and thus creating the cobblestone pattern.

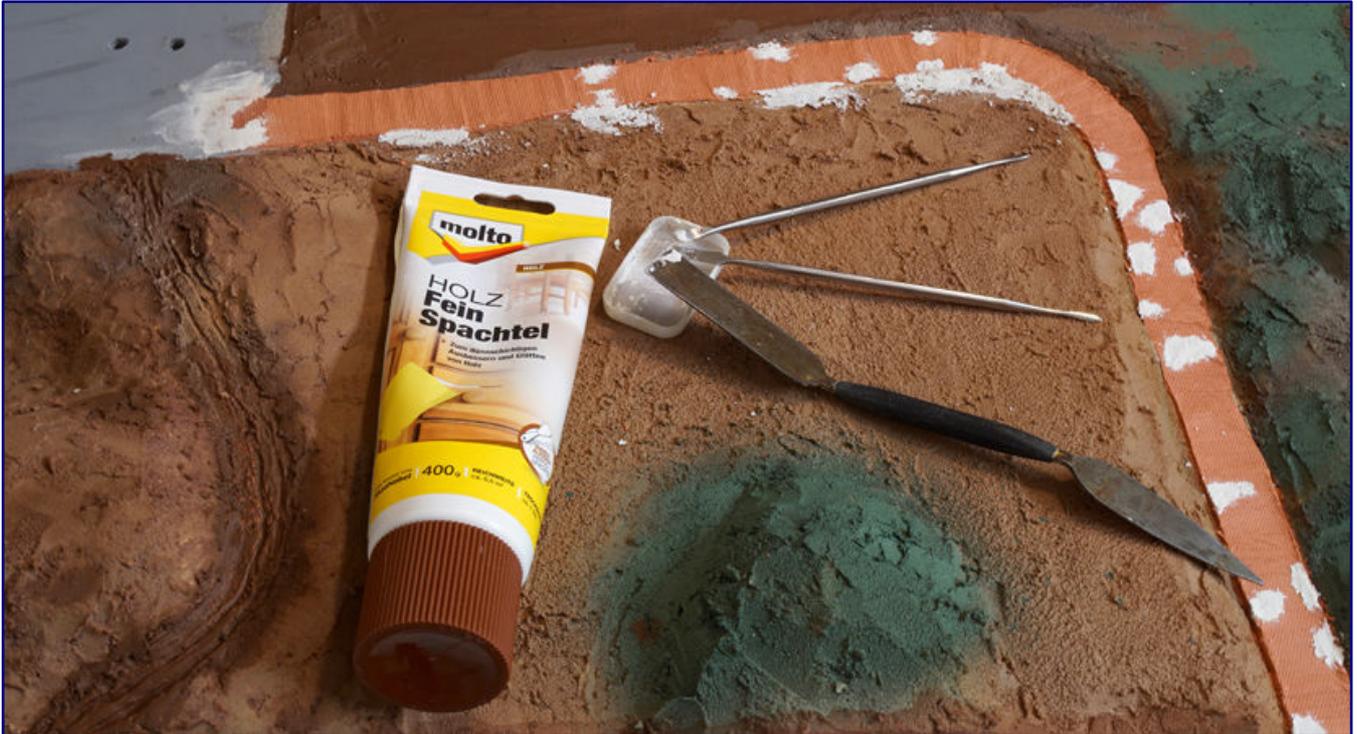
This is quite easy to do; only the sharp curve requires a bit more attention and skill in order to prevent the clay from tearing or throwing up waves. Working with the embossing tool also takes a few attempts before one manages to keep the clay flat on the surface when rolling the tool over it. But once one gets the hang of it, this too can be done quickly and easily.

Before we can continue, we have to wait again. The clay is air-curing, which is why we are curious to see if there will be any noticeable shrinkage compared similar materials that we are familiar with.

We are relieved when we see the cured result the next day. The clay is hard and firm, its touch reminds us a little of ceramic and fortunately it does not show any visible signs of shrinkage. The cobblestone pattern looks good and has the desired appearance of a bumpy old road.

With Molto's fine wood putty we intensify this effect even more by painting a generous number of asphalt patches over the cobblestone: We are imagining a road shortly before its complete renovation and one which is not for speeding but for a leisurely drive through a beautiful landscape.

Once the patches are dry, it's time to add some colour to the road with Faller's asphalt paint (180506). It is applied with a micro paint roller (60142) from Noch, which distributes the paint well into the grooves and cracks and also ensures a smooth surface on the already completely paved station forecourt without leaving brush marks. The transition to the platform was previously masked with Tamiya masking tape.



The road patches are modelled with Molto's fine wood putty (top). Afterwards the street and the station forecourt will be painted with Faller street paint, which we will apply with a Micro Paint Roller from Noch (bottom).

In order to enhance the three dimensional look of the road's surface and the patched up areas, some weathering is needed for darkening the joints and cracks between the stones and the on the patches.

Once again we make use of the wash which already worked so well on the tracks' ballast and apply it to the road, the station square and the platforms as well. Once finished, we are actually quite proud of the result – no more monotonous surfaces, but an authentic overall look.

Plants and trees sprout

Finally, this brings us to the greening phase. Here again, it is important to avoid monotony and to produce visual variety. There is nothing more unrealistic than a meadow with blades of grass of identical height and colour. And adding a few flowers here and there will simply not be enough.



The trunks of Faller's tree armatures that are too smooth and are therefore given a bark replica with Vallejo's new acrylic paste "European Mud" (26807) before foliage is applied. The "mud paste" is applied with a bristle brush.

But first we focus on the trees which we want to plant on our diorama. The type and size of trees chosen will also determine the size of our forest area. Typical Black Forest trees are tall, dark firs.

We opt for spruces from Busch's Natur-pur range because of the great similarity to firs. For those shying away from building their own conifers (see **Trainini®** 12/2006 for instructions and a product comparison) Busch probably has the most convincing ready-made specimens among all the large scale producers.

We procure an ample number of specimens of different heights and with and without high trunks. Given that planting a forest will require experimenting with different placements of trees, it is better to have a few more trees of different heights than actually needed. Any surplus trees can always be used for the next layout build.

Our large selection of trees consists of two packs "Spruce Forest Set" (6395) and the items available as a duo (6131 - 6133, 6136 & 6137) in different quantities. As explained, it is better to not decide on the exact number of trees in advance but to be flexible.



The processed Faller wire tree armatures are ready receive leaves. Before that, the alignment of the branches is checked and, if necessary, readjusted. Then, individual shreds of the foliage are plucked, stretched over the branches and attached with Uhu power glue. The glue is applied with the tip of a toothpick.

Of course, tall trees dominate for the corner with the coniferous forest, and we generous with the amount of high-stem spruces to be planted mainly towards the back. Before planting, we do, however, remove the root base from each tree.

One reason for this is that the roots of these tree models are all of the same size and would produce a monotonous overall look. But above all, they are rather oversized for the shorter specimens and would not look convincing. Instead, they are planted into holes corresponding to the diameter of the trunk and glued in place with Uhu wood glue. This also gives us the opportunity to vary their eventual height a little in order to avoid an overly uniform appearance.

The deciduous trees are bare armatures from Faller and made of twisted wire. We use those with heights of 120mm (181224) and 70 mm (181225) in a deliberate decision to avoid the unfortunately typical and frequent practice of using trees which are too small for the scale. For those still sceptical, we recommend to read up on how tall a native solitary deciduous actually grows.

Since we were not quite happy with the overly smooth and shiny bark of this industrial product, we decided to solve the problem by coating the trunks of the armatures with an acrylic texture paste from Vallejo ("European Mud, 26807) which can be applied with a thin bristle brush.

For foliage we choose this time leaf foliage from Faller. For our four trees we have picked two different, but harmonizing colours: dark green (181616) and deciduous green (181618).

We cut the foliage into small pieces, then pull them apart in an irregular fashion and use them to cover the branches of the tree armatures from the inside out. Pointed tweezers facilitate this process. To fix the foliage permanently, we dab Uhu power glue on parts of the wire branches and then press the material lightly with the tweezers.



The appearance of the trees produced in the manner described in the text far surpasses that of traditional models with plastic trunks. The bark of the trunk looks absolutely natural, the foliage gives a coherent and realistic picture, and yet appears light and authentic from close up.

We continue this work of covering the branches, sometimes several times at the same places or close together, until the overall result looks authentic with all tips of branches.

The foliage does not completely block the view towards the sun and in some places it gives the impression that the viewer can still look up into the sky. By the way, we don't throw away any loose pieces of foliage accumulating during the work; they will come in handy soon enough.

Reaching the finishing line

Before we can glue the trees into their intended positions, we have to work on the ground cover. We therefore stick the trees into a styrofoam panel and set them aside.



The wheat field from Busch (1310) provides a clear visual contrast to the paved and patched up country road.

We cannot do without grass fibres of different lengths and colours when modelling the meadow areas, but before we do so we also use a product from the "Groundcover" range of Busch which allows to quickly model larger areas of vegetation. In our case, we use the wheat field mat (1310), which we cut to size and attach to its intended location with Uhu wood glue.



We apply the bush and needle wall floor with the Gras-Master, after we have thrown some pieces of wood into the fresh glue bed.

randomly scatter some dry pieces of wood (which we sterilized in the oven) onto the glue for additional authentic effect.

A large part of the edge of the forest, which reaches up to the station square, is created with the "Summer meadow" mat (1306). Behind the platform on the station side we use a comparable product from Noch's Natur+ range ("Summer grass", 07403).

The coniferous forest floor (7529) from Busch is made of various materials which make for a very realistic looking surface.

We also add a bit of static grass to the area and use a Noch Grasmaster static grass applicator in combination with Noch grass glue XL (61131).

At the transition from the platform end to the ballast or green areas, we sprinkle some more Rhyolite Z ballast (50-2021-01) and Rhyolite Z gravel (50-2211-01) from Minitec into a coat of glue, because their colour harmonizes best with the selected track ballast and can thus create harmonious transitions between areas with weeds between the ballast and the more compacted areas.



The areas directly at the platform ends require a somewhat differentiated design: they will be covered with gravel and ballast from Minitec flowing into each other, with a few stalks growing up in between.

Afterwards all remaining areas receive two layers of static grass. The grass glue from Noch is not spread over the entire surface, but is applied in sometimes larger, sometimes smaller areas. We first use 5 mm long field grass golden yellow (07088) for dry areas, followed by the master grass mixture "summer meadow" with a 2.5 to 6 mm fibre length (07072) for the more vigorous wild meadow areas.

In some areas we also add some lighter or heavier layers of soil before applying static grass. Some of this soil was collected by ourselves from a farm in East Frisia and sterilized and put through a sieve before use, but we also use parabrown soil of different grain sizes from Minitec. This allows us to model smaller areas where grass growth is less abundant or completely missing.

But we still need some additional ground cover. Bushes and blackberry hedges are modelled with fine steel wool, which can be bought at every supermarket for cleaning pots. Coated with matt brown acrylic spray from Noch and once dry, they can be glued into place with Uhu power glue.

After plucking them into shape with the tweezers, they can be sprayed with Noch's Adhesive and Fixing Spray (61152) and then sprinkled with leaves. For the bushes that we have placed along the paths and on the meadows, we use the material left over from our tree production. The blackberry hedges, on the



This is how the forest floor and grassy areas look like after applying multiple layers of static grass (top). In the middle of the gravel path the grass has to be cut a little bit with an electric hair clipper. Lasercut plants from Noch (bottom) provide variety on the green areas. Also included are half finished blackberry bushes made of steel wool and spray painted with brown colour, but still waiting to be covered with leaves.

other hand, which grow at the back of the platform, are sprinkled with the dark green foliage (07146) from Noch.

Further vegetation comes from Noch's N-scale Laser-Cut-Minis range, namely ferns (14606) and butterbur (14610; no longer produced). In nature, these plants can be found mainly in the humid parts of the edge of the forest at the transition to the meadow, ferns also in sufficiently wet spots of the large meadow areas.



The dark green foliage (07146) from Noch has the perfect colour for blackberry bushes, as this picture shows. Covered with some adhesive and fixing spray from the same company, it will stay that way permanently!

When modelling plants, it is always worth to study how they grow and look like in nature. We consider fern in particular to be quite challenging in this respect, and it is not straightforward to combine several of the paper ferns into a convincing looking plant. One should also be aware that coniferous forest floors come with only very little ground cover due to the fact that falling needles are not conducive to plant growth.

Now it is time to install street and platform lights. All of them require a hole in the diameter of their base to find hold and to lead the wires down into the diorama's baseboard. If there is no information about the appropriate drill diameter in the instructions, the right size can be quickly determined with a slide gauge.

On the main platform, we install five 50 mm high lattice mast lights (7163) from Viessmann, whereas on the island platform, three platform lights (7164) with a height of 30 mm are used. The plastic clamp, which is supposed to be pushed from below onto the base of the mast, does not fit in our case. We therefore used Uhu power glue to provide sufficient support.

We consider the Viessmann light to be a compromise solution, given that we have not found any platform lights lamps that exactly match the existing prototype photos. Moreover, they have not yet been converted

to maintenance-free LEDs, i.e. they continue to work with micro incandescent bulbs and appear rather coarse in comparison to the Brawa lights which are unfortunately no longer produced.



We use two different types of Viessmann lights for the platform lighting. The distances are measured and exactly determined before drilling the holes.

If one is not willing to make this sort of compromise, one should have a look at the products of small series manufacturers, and see what they offer in terms of more realistic looking lights. An example for such convincing and detailed solutions are the two single arm lights (10733) from ZNorm, which are located at the street at the back of the station. They too are simply glued into a hole, are exactly scaled with a height of 29 mm and work with LED.

And now we come to the exiting questions of whether we should first install the overhead line, which would make the subsequent access to the platform more difficult or set up the miniature figures first. Considering the risk of breaking the figures and taking into account the possibility to always put the in place with tweezers, we end up deciding to install the catenary wires first.

Finally, we can also push the loose, i.e. not yet cast-in catenary masts (see explanations in part 2) into their base and then attach the catenary wire. Since the Märklin parts look much too coarse and are no longer up to date, we were faced with a fundamental decision: Can we do without suspended catenary wires or is there a better alternative to the Märklin product?

Heinz O. Schramm (HOS-Modellbahntechnik) gladly took on the challenge of developing a realistic catenary wire. His product line-up already included a very fine implementation of the Reichsbahn type including matching masts from his own production.



For the street lights we decided to use the filigree and yet stable single arm lights from ZNorm (10733). The installation does not pose any problems: Drill a hole, lead the cable through and glue it in - finished.

What was missing was a modern line that would fit the Märklin geometry and its quite modern masts, i.e. an alternative even on already built up systems. Heinz didn't let himself be asked twice and without further ado added such pieces with 165 mm length to his program. In a black version it now also adorns the Himmelreich diorama without disturbing on photos.

The station building is now also finally taking its place, but will not be glued on yet, as the electrical connections are still pending and will not be completed until the next part.

The platform roof, which had previously only been loosely inserted, is now finally allowed to take its place, as are two very convincingly implemented ticket machines in contemporary DB red (2089-5), which Modellland added to its program on request. One of each of the two self-service machines is located at the entrance to the main and island platforms.

The idyll seems almost perfect now, but life and movement are still missing. The reason is the figures that provide exactly these impressions. Trafufuchs has made some individual figures that are supposed to make you smile or bring back memories: There is a woman sitting on a pile of suitcases which makes one wonder who might have helped her carrying them all to the station and for how long she plans to travel with this much luggage.

Next to her stands a man with sunglasses and open newspaper, but the yellow armband with dots raises questions about his vision or his intentions. The gentleman in love on the main platform doesn't seem to mind, he waits patiently with a little heart balloon for his sweetheart. Mother and child, however, are already in the middle of a reunion scene.

continues on page 55



A man with a Labrador walks in the morning sun at the edge of the forest and enjoys the wonderfully realistic effect of the Busch spruces (top). Search picture for adults (bottom): Can you find the squirrel (von Klingenhöfer) in the tree at the edge of the station (see enlargement)?

If you look closely, you will find some more scenes that we can all relate to from our own experiences and memories with train stations. The figures are complemented by the somewhat chubby looking

passengers (44201), passers-by (44202) and some railroad officials (44200) from the Noch. We attached them with removeable glue from the company, which helps to prevent damage and amputated feet.

Himmelreich station – what's next?

Part 4 (September 2020):

Final work on the diorama, including wiring all electrical components and building an integrated control panel. To make sure that the finished piece will cut a good figure at exhibitions, the wooden base will also be painted. And we will add missing signs and some more colour to the layout. Finally, we will rearrange a group of figures in order to increase its visual interest.

But what would the world be without animals? Of course we want to include them as well. Pigeons that can be found at any railway station were provided by Trafofuchs and were placed in front of the goods shed away from the groups of people. Birgit Foken-Brock from Trafofuchs also created a hare.

Most of the fauna, however, comes from Creativ-Modellbau Klingenhöfer, who have made a big name for themselves with model animals. We have hidden a fox, eagle owl and a squirrel from their production on the diorama in such a way that they are only noticeable at a second glance or during a specific search. After all, they do not impose themselves on humans in reality.



Some bizarre figure scenes can be found on the platforms of Himmelreich: What on earth does a blind man do with an open newspaper? And how did all the suitcases of the traveling lady get to the station?

The small squirrel is likely to be quickly discovered by children, whilst adults might take a bit longer. A personal wish was also the man with Labrador on a leash, which Gabi Klingenhöfer created upon special request. Both are now walking along the path through the forest in beautiful weather. The intention is to create the illusion of figures interacting and communicating with each other, being in a recognizable relationship and thus appearing alive.



It is the overall impression that counts: The work on the visible part of the diorama has been completed. In the next and last episode, we will go underground and to the walls of the base. This image does not yet show the final back scene of the diorama, but Faller has a Black Forest backdrop which fits excellently (see cover photo).

It is therefore important not to distribute figures in a rigid geometry, but to form groups that make for a recognizable relation and context. So it is no coincidence at all that the fox and the rabbit say good night to each other at the edge of the forest...

Layout building materials sourced from the following producers:

- <https://www.bindulin.de>
- <https://www.busch-model.info>
- <http://www.erbert-signale.de>
- <https://www.klingenhoefer.com>
- <https://www.faller.de>
- <https://www.fohrmann.com>
- <http://www.hos-modellbahntechnik.de>
- <https://www.modellbahnunion.com>
- <https://www.modellland.de>
- <https://www.noch.de>
- <https://www.revell.de>
- <https://scenery.shop/>
- <http://www.startecproducts.de>
- <https://www.tamiya.de>
- <http://www.trafofuchs.de>
- <https://www.uhu.de>
- <https://viessmann-modell.com>
- [z-norm\[at\]web.de](mailto:z-norm[at]web.de)

Ihre Bildsammlung braucht einen sicheren Hort!

Unsere Aufgaben:

Bildsammlungen:

- **bewahren**
- **bewerten**
- **veröffentlichen**

Eisenbahnprojekte:

- **fördern**
- **initieren**

Unsere Garantien:

- + **personenunabhängig**
- + **sicher**
- + **gemeinnützig**
- + **steuerlich privilegiert.**

**Sie möchten
eine Sammlung
der Nachwelt
erhalten?**

0173 / 295 19 21

Rufen Sie uns einfach an!

**Sie möchten
unsere Arbeit
unterstützen?**

Spendenkonto:

Sparda-Bank West

Kto.: 579 484

BLZ: 330 605 92

EISENBAHNSTIFTUNG

JOACHIM SCHMIDT



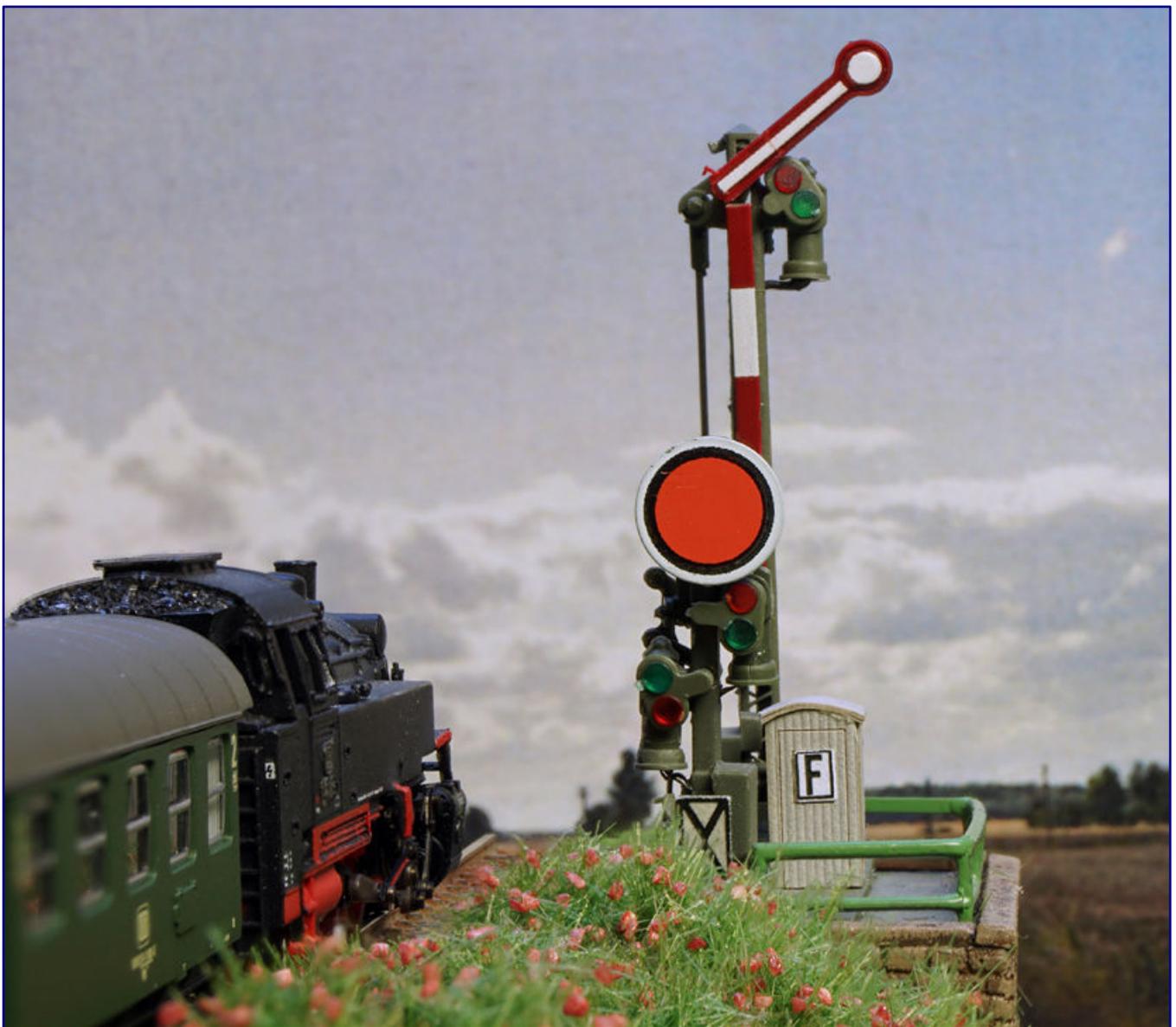
www.eisenbahnstiftung.de

Line telephones in prototype

Relics of Telecommunications

In spring 2020 Märklin presented a small kit for telephone booths. Too inconspicuous to attract attention, but too important to be forgotten on a system, would be an apt conclusion. We will briefly present the kit and some alternatives, so that the train crew on your layout does not have to remain silent as a model!

Every year, new architectural kits appear in the Märklin range, developed and produced by Modellbau Laffont exclusively for the market leader. However, in the spring new products of 2020 there was apparently no more room for the large building or bridge kits of recent years.

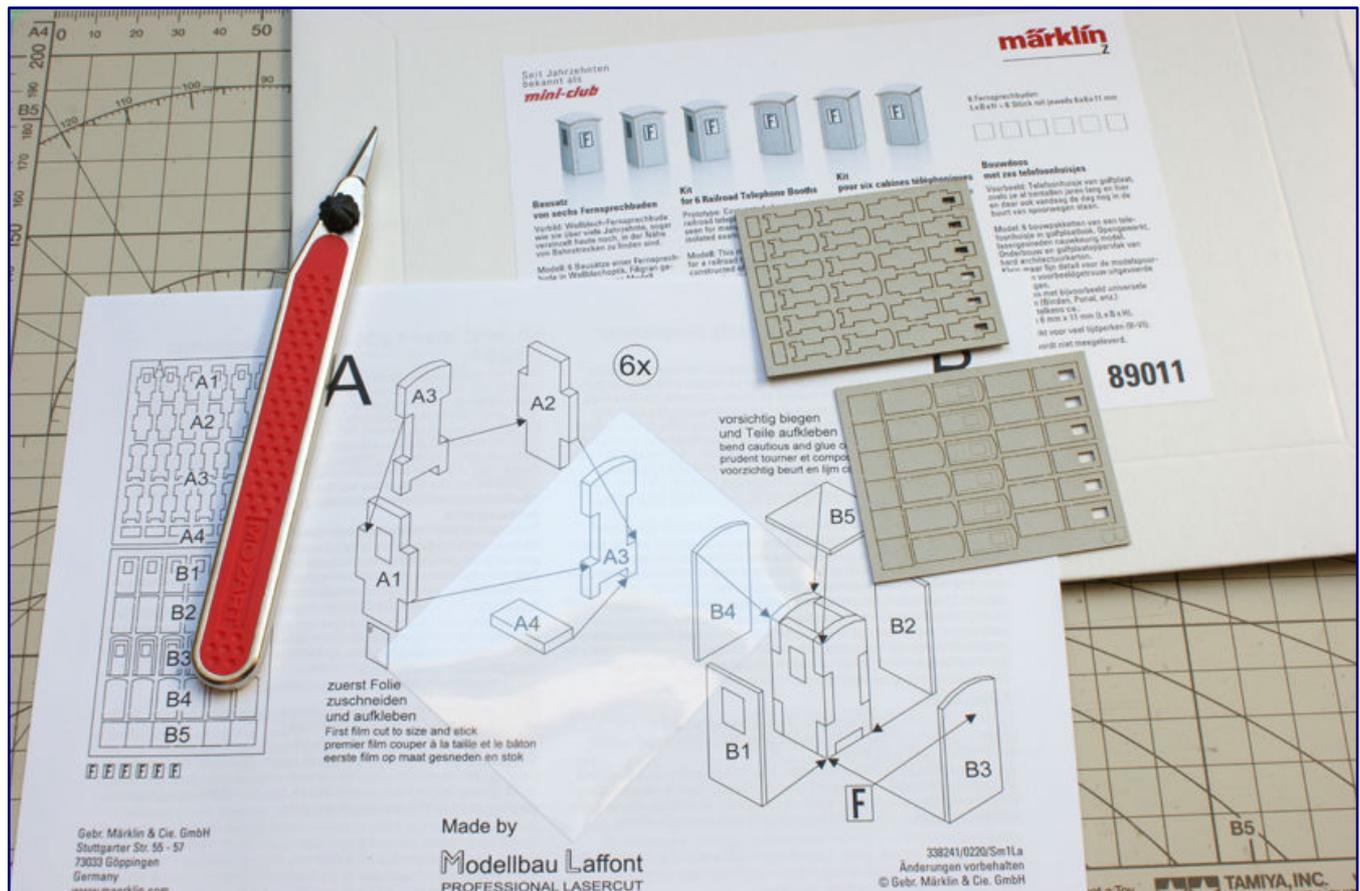


Märklin's new telephone booths (item no. 89011) and their alternatives are to be set up and used in a manner close to the prototype of today.

Here, it is important to remember that development and production will at some point reach their limits, because Stefan Laffont is not only on a scale of 1:220, even though he does this with great passion.

But for a smaller, but all the more important kit, this year was also enough. The assembly does not require any special requirements, and with regard to volume and price, it is an excellent entry-level product.

With the six telephone booths (art. no. 89011) the handling of hard cardboard can be practised and a basic set of necessary experience can be built up. Then nothing should go wrong when we turn to a project that is more filigree and has more parts in the next step.



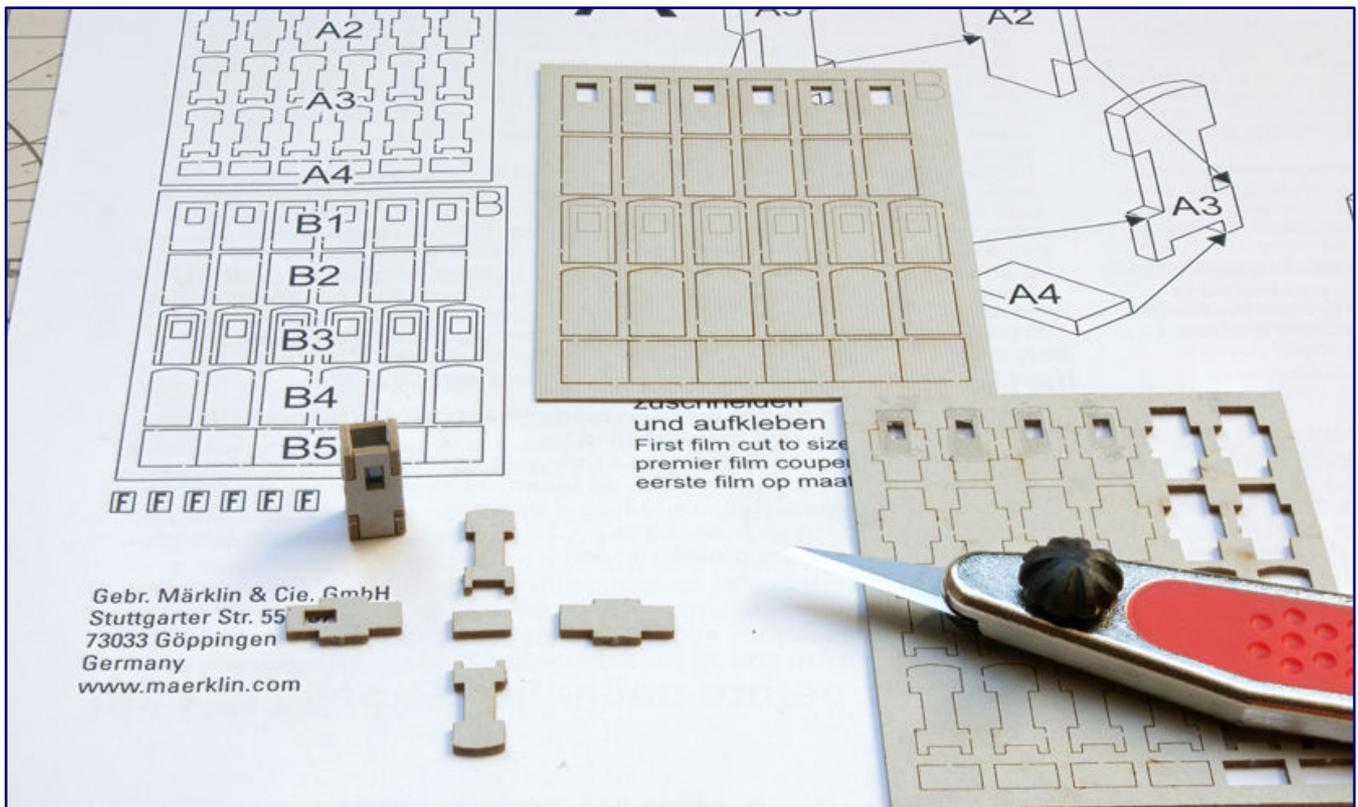
The kit contains six remote control booths, which consist of only a few parts and are therefore quickly assembled.

The kit contains six each of the total of six stands consists of five inner parts, which together form a stable core. They are cut out of the sheet with a sharp craft knife, trimmed with a nail file at the cutting points, if necessary, and assembled together, before finally gluing them together.

There is no great danger of confusion in this case, because none of the five parts is the same as the other. But, it is a principle we always mention and which every model railroader should internalize, it prevents expensive mistakes, not only with hardboard kits.

One of the four walls has a window to allow some light to reach the little Preiserlein on the phone. A window foil is included in the kit, from which a suitable piece is cut out with a craft knife and attached to the inside with small Uhu Kraft glue spots (application aid: toothpick tip or point gluing tool).

continues on page 61



The principle of construction is also the same as that of other architectural kits made of hardboard: first the building core is assembled, in this case from five parts (photo above). Not to be seen is the foil, which is glued to the core from the inside. Then the outer walls and the roof are glued on (photo below) and finally the telephone sign can be placed on the door.

After the dry fit test, the edges are coated with the wood glue Bindan-RS, or a laser cut adhesive (Faller or Noch) and joined together. All three set after a few minutes, so that the process can continue quickly.

This is followed by the four outer wall sections and a roof support, which are again fixed with wood glue or laser-cut adhesive. Finally, we cut out the telephone sign with edge on the steel ruler and glue it to the door. What sounds so simple, is: the tiny building is already finished.



Götz Guddas shows us on his self-construction (with mounted outside alarm on the side of the track), how a telephone booth with the patina of many years of operation should appear. By the way, the model also has a prototypical interior. Photo: Götz Guddas

This procedure has to be repeated five times in total until all the booths are in front of us, and can be distributed around the site. If you like, you can also paint them all or some of them. After decades of service in wind and weather, they had weather marks in many places, but, above all, they had rusted badly.

The deepened corrugated sheet metal areas remained moist for longer and were predestined for rust build-up, which also appears credible in the model. If the building was somewhat sheltered from the wind, for example, in a recess in the terrain or in front of a portal, moss could also adhere to the roof. If a nearby tree dropped its leaves on it in autumn, a layer of humus may have formed over the years, which also provided a basis for the life of leafy plants.

The possibilities for model use are therefore manifold – from brand new to scrap. But where does such a long-distance stand actually belong? They are a relic of the time when there was no train radio, which is now long since handled by a separate mobile phone network (GSM-R; R for “railway”), or when only a few lines were correspondingly developed.

They were quasi (key-operated) telephone booths for the train personnel, with which they could call the respective traffic controller or switch keeper at the next signal box. In case of a defect of signals or of the train itself, they were used to communicate for further action: a dictated command to continue the journey over a disturbed signal or to request an auxiliary train.

continues on page 64





Here, the telephone booth is at the beginning of a section that is operated as a blocked trip (picture above). Inside, the switch key is stored in a booth, the train driver contacts the dispatcher at entry and exit. Rejected booths sometimes found a secondary use (photo below). Here the booth has been restored. It probably belongs to a railway enthusiast.

Photo on page 62:

In the event of an unforeseen stop, the conductor contacted the dispatcher via the trackside telephone. He uses the folding board under the telephone to write down a run command from the signal box for the eyes of the train driver. Photo: Lehrmitteldia der Bundesbahnschule Münster (Westf.), Slg. Armin Mühl



After the Second World War, the German Federal Railways refrained from setting up new telephone booths and instead developed a telephone box with a round shape, as Götz Guddas had built it himself. Here, the train driver has already opened the flap with his square key, folded down the writing board and will now reach for the handset, and this is also possible in the model. Photo: Götz Guddas

Role model article on route telephones

In the current railway magazine 9/2020 under the headline "Fahrbefehle nach dem Klingelton" you can find an article by Armin Mühl, which deals with the prototypes of the models discussed here.

There it is explained in detail when which models were used in East and West, how and by whom they were used and what purpose they served. The report also describes the simple technology they used in an understandable way.

Included are also numerous photographs of role models, which provide orientation for the implementation of models, even of building types not previously offered.

Without them, nothing or at least hardly anything would work in real life. That's why they can't be missing in all imaginable designs, from different times in railway history, even in the smallest gauge.

Often they were located at the beginning of the line blocks near the signals, but also in front of tunnel entrances and entry signals. In the case of the railways, there were and are also sections of line that are not controlled by signal operation. Only one train is allowed to run on these sections at any one time.

Such a blocked journey must be known to the train reporting point (signal box). The access switch is secured with a key for which the traffic controller is responsible. The existing or missing key then provides information about the occupancy status. Telephone booths were also integrated here so that the train driver could call the responsible operating centre.

When the small houses became superfluous, they were left to decay or were dismantled. But what didn't end up on the scrap heap or in a museum sometimes found a secondary use. Individual specimens appeared in the gardens of railway enthusiasts or were misused as small storage space.

Either way, it should be clear that only six specimens are quickly installed even on a small layout. By the way: If you prefer the more modern version, used from the seventies onwards, as a square telephone box with roof overhang, you will not go away empty-handed.

Note for English readers: The literature section that follows is not translated into English because the original texts of the books involved are in the German language. The original German is left here for information purposes only.

Büssing bei Bahn und Post **Mit der Spinne am Grill**

Die markanten Chromstreifen am Grill, wegen ihres Erscheinungsbilds meist als „Spinne“ bezeichnet, waren viele Jahre ein typische Erkennungsmerkmal von Büssing-Fahrzeugen. Später trat der Büssing-Löwe stärker in den Vordergrund und überlebte das Unternehmen bis heute. Volkhard Stern portraitiert die berühmten Busse, wie sie bei Bahn und Post im Einsatz standen, und auch für Modellbahner äußerst interessant sind.

Volkhard Stern
Büssing-Busse bei Bahn und Post

EK-Verlag GmbH
Freiburg 2020

Gebundenes Buch
Format 21,0 x 30,0 cm
112 Seiten mit ca. 160 teilweise farbigen Abbildungen

ISBN 978-3-8446-6863-6
Best.-Nr. 6863
Preis 29,80 EUR (Deutschland)

Erhältlich direkt ab Verlag
oder im Fach- und Buchhandel



Volkhard Stern dürfte einigen unserer Leser bereits bekannt sein, denn wir haben schon zwei seiner früheren Titel rezensiert, die ebenfalls beim Eisenbahn-Kurier erschienen sind. Dieser Autor gilt vor allem als ausgewiesener Busexperte, wovon wir uns auch bei eigenen Recherchen zum Schienen-Straßen-Bus noch sehr zeitnah persönlich überzeugen durften.

Und so wundert es kaum, dass auch das heute zu besprechende Werk sich mit diesem „Steckenpferd“ beschäftigt. Zugewandt hat er sich dieses Mal der Marke Büssing, die bei Kennern noch heute einen außergewöhnlichen Klang hat.

Lastkraftwagen und Busse hat das Braunschweiger Unternehmen bis zur Übernahme durch die Maschinenfabrik Augsburg-Nürnberg (MAN) hergestellt. Ein Stück dieser Marke ist auch heute noch zu sehen, denn deren Löwe hat das Unternehmen um Jahrzehnte überlebt.

Er war das Büssing-Markenzeichen und ziert heute zusammen mit den drei Buchstaben alle Fahrzeuge, die die Werke von MAN verlassen. Die große Zeit unter eigener Marke waren die Jahre zwischen den beiden Weltkriegen und immerhin drei weitere Jahrzehnte danach.

Spätestens jetzt müsste es bei unseren werten Lesern klingeln, warum wir dieses Buch für eine Besprechung ausgewählt haben: Ein Großteil der zu behandelnden Fahrzeuge gehört auf der Modellbahn in die mit Abstand beliebteste Epoche III. Das gezielt auf die Fahrzeuge von Post und Bahn geschaut wird, macht es noch reizvoller.

Bahn und Post waren auf dem Omnibussektor nämlich die größten Einzelkunden von Büssing. Und sie waren auch die damals größten Busunternehmen in Deutschland. Da sie besonders ländliche Gebiete erschlossen haben, müssen sie bei Modellbahnern ganz besonders im Fokus ihrer Anlagen stehen.

Doch die Beschaffung bei den beiden Staatsunternehmen verlief äußerst unterschiedlich: Während die Reichspost bereits vor dem Zweiten Weltkrieg eine beachtliche Büssing-Flotte besaß und diese ab 1949 noch deutlich ausweitete, hatte die Reichsbahn vor 1939 nur wenige Exemplare mit der berühmten „Spinne“ an der Front in ihrem Bestand.

Das änderte sich bei der jungen Bundesbahn in den fünfziger und sechziger Jahren, als große Stückzahlen die Braunschweiger Werkshallen auf ihre Bestellung hin verließen – dies macht es übrigens umso erstaunlicher, dass es bislang kein Büssing-Busmodell für die Spurweite Z gibt.

Gelbe Post- und rote Bahnbusse wurden im weiteren Verlauf noch bis zum Ende der eigenständigen Busproduktion von Büssing (1971/72) in einer breiten Typenvielfalt geliefert. Dies ist hervorragend und sehr vollständig im vorliegenden Buch dokumentiert.

Gegliedert ist das Werk chronologisch jeweils getrennt nach Bahn und Post in eigene, in sich geschlossene Kapitel. Vergessen wurden nicht einmal Privatbahnen, denn der Titel schränkt sich ja auch nicht auf die DB ein. Auch ein kurzer Hinweis auf die Lastkraftwagen von Büssing fehlt zum Ende nicht.

Jedes Kapitel beginnt mit einleitenden Texten, die dem Leser ein gutes Orientieren erlauben. Perfekt fügt sich da die kurze Büssing-Chronik am Ende ein. In der Gesamtbetrachtung ist es aber ein Bildband (mit Farbteilen), der für Modellbahner sicher eine Quelle für viele Fragen zur Anlagengestaltung – auch über die abgebildeten Busse hinaus – ist.

Als „atmosphärisch dicht“ bezeichnet der Verlag in seiner Eigendarstellung die ausgewählten Aufnahmen. Dem können wir nur beipflichten, als dass auch uns keine Lücken aufgefallen sind oder wir irgendetwas schmerzlich vermisst hätten.

Zu den Aufnahmen zählen zu allererst Bilder aus dem Einsatz der Busse. Werksaufnahmen und die Wiedergabe von Werbeanzeigen ergänzen den Bestand dort, wo sich sonst Dokumentationslücken aufgetan hätte.

Diese Entscheidung war gut und richtig, denn sie macht den Titel zum einen abwechslungsreich und stellt unbewusst auch gegenüber, wie Hersteller und Dritte die Fahrzeuge sahen oder sehen wollten. Die Wahl einer Perspektive oder des Lichteinfalls ist bei professionellen Fotografen schließlich eine bewusste Entscheidung, die viel über sie oder ihn wie auch den Zweck der Aufnahme verrät.

Typisch für den Eisenbahn-Kurier und damit auch ein stichfester Grund, warum Autoren ihn gern als Partner für solche Projekte wählen, ist die gute Papierqualität, die eine gute Reproduktion der historischen Aufnahmen erst möglich machen. Dazu gehört natürlich auch der gesamte Prozess der Bildaufbereitung vor Drucklegung.

Dieser Band macht da ebenfalls keine Ausnahme und reiht sich lückenlos in die Reihe anderer Druckerzeugnisse ein, die wir schon aus dem EK-Verlag vorgestellt haben. Wir dürfen bei diesen Zeilen schließlich auch nicht vergessen, dass selbst die jüngsten Aufnahmen, die es hierhin geschafft haben, schon fast fünfzig Jahre alt sind.

.....
: **Publishing pages with reference possibility:** :
: <http://www.eisenbahn-kurier.de> :
: <http://www.ekshop.de> :
:

Letztes Aufbäumen vor dem Aussterben **Schicksalsjahre der Dampfloks**

1970 propagierte die Bundesbahn immer wieder und mit Nachdruck das Ende der Dampfloks. „Unsere Loks gewöhnen sich das Rauchen ab“ war ein prägnanter Werbespruch jener Zeit. Gerd Kramer erkannte, dass er schnell sein musste, wenn er die noch große Baureihenvielfalt und Stückzahl an Dampflokomotiven in Franken und Baden-Württemberg für die Nachwelt festhalten wollte. Einen Zusammenschnitt seines filmischen Werks stellen wir Ihnen heute vor.

Rio-Grande-Videothek
Die letzten DB-Dampfloks
Folge 94 - Würzburg, Lauda, Heilbronn, Crailsheim, Rottweil, Tübingen
aus der Reihe „Die Stars der Schiene“

VGB Verlagsgruppe Bahn GmbH
Fürstenfeldbruck 2020

DVD-Video
Bildformat 16:9 / 4:3
Tonformat Dolby-Digital 4.0
Sprache deutsch
Laufzeit 80 Min.

ISBN 978-3-96807-504-4
Best.-Nr. 6394
Preis 16,95 EUR (Deutschland)

Erhältlich direkt ab Verlag
oder im Fach- und Buchhandel

Gerd Kramer, auf dessen Aufnahmen der heute vorzustellende Film basiert, gehört als Fotograf und Filmer von Dampflokomotiven eher zu den Spätberufenen.



In den achtziger Jahren veröffentlichte er einen Bildband, der die letzten und populärsten Dampflokomotivbaureihen der DB mit Skizze, kurzer Beschreibung und eigenen Aufnahmen vorstellte. Schon damals war erkennbar, dass der Schwerpunkt seines Schaffens in Franken und Baden-Württemberg lag.

Vom Wohnort Würzburg aus trat er seine Reisen zu den Strecken und Betriebswerken an, die noch Dampfbetrieb aufwiesen. Seine Filmaufnahmen, die in dieses Werk Eingang fanden, entstanden ab 1970, also nach Einführen der Computernummern.

Nur rund fünf Jahre blieben ihm, um die letzten Dampflokomotiven, die südlich der Mainlinie im Einsatz standen, in bewegten Bildern festzuhalten. Das waren teilweise andere Baureihen als in der nördlichen Hälfte der Republik: Hier gab es keine Baureihen 011 und 012, dafür standen noch 01 und wenige 03 im Einsatz.

Und die letzten Maschinen preußischen Ursprungs wurden ebenfalls nur im Süden, fernab ihrer ursprünglichen Heimat, abgefahren. Auch die Baureihen 064 und 086 waren anderswo längst verschwunden. Für den Zettie verspricht das ein Sammelsurium an Fahrzeugen, die er auch als Modelle kennt und schätzt.

Hinzukommen die Baureihe 023, die im Maßstab 1:220 zumindest als Kleinserienmodell angeboten wird, und die einst allgegenwärtigen Baureihen 044 und 050 bis 053, die wohl in keinem Maßstab fehlen. Alles

zusammen verspricht Videogenuss für lange Abende in der dunklen Jahreszeit, die nach den heißesten Tagen des Jahres nicht mehr fern sind.

Was den Käufer erwartet, lässt sich vielleicht mit einem Verweis auf „Mythos Fischzug Sg 5321“ erklären: Auch diese Vorgänger-DVD mit Filmmaterial von Gerd Kramer hatten wir besprochen, gelobt und schließlich als Neuerscheinung des Jahres 2017 in der Kategorie Literatur ausgezeichnet.

Der nun vorliegende Film knüpft daran an, zumal er auch mit dem Bespannen des Sg 5321 in Würzburg beginnt. Und so enthält auch diese DVD vergleichbar brillante Szenen - dem Alter entsprechend natürlich im Bildformat 4:3 - des Dampfbetriebs in der Heimat des Filmers. Die Reise verläuft nun zunächst ab Würzburg weiter nach Lauda mit seiner Baureihenvielfalt.

Weiter geht es nach Crailsheim und Heilbronn, von dort aus weiter in den Schwarzwald. Dort lagen die Einsatzstrecken der Bahnbetriebswerke Tübingen und Rottweil, wo die Baureihen 38 und 78 noch in Szene gesetzt werden konnten.

Ein Wiedersehen gibt es aber auch mit den Baureihe 065 in Miltenberg, der 044 unter anderem vor einem schweren Panzerzug oder der 094 im Umfeld ihres Betriebswerks. Die vielen Szenen sind häufig auch voller Reize für die Nachbildung nicht alltäglich wirkender Züge im Modell.

Zum Einstimmen der Zuschauer und auch zum Anmoderieren oder Verbinden von Sequenzen ist der Film mit Gesprächsmitschnitten und Interviews angereichert, die sowohl Gerd Kramer selbst als auch andere Zeitgenossen, teilweise auch höheren Bekanntheitsgrads, einschließen.

Etwas ermüdend wirkt nur, dass viele Wildaufnahmen, vor allem von Rehen und Fasanen, sehr inflationär als Füllsequenzen genutzt werden – immerhin haben wir hier ja keinen Tierfilm erworben.

Handwerklich ist der Film gelungen: Die alten Zelluloid-Aufnahmen mit Flimmereffekt wurden digital gelungen reproduziert. Sie wirken unverändert authentisch, weil sie ihr Alter nicht verheimlichen, ohne dabei alt hinsichtlich der Qualität zu wirken.

Das Filmformat 4:3 wurde dabei in das heutige Bildschirmverhältnis 16:9 integriert, indem seitlich jeweils unscharfe Bereiche der Bildränder zusätzlich angesetzt wurden. Bei Wahl dieses Weges hätten wir allerdings auch erwartet, dass die nachgedrehten Szenen mit ehemaligen Personalen und Historikern gleich im 16:9-Format gedreht und mitverarbeitet werden.

Trotzdem vergehen 80 Minuten wie im Fluge, wie auch hier festzustellen ist. Kaum in Schwung gekommen und in Nostalgie eingetaucht, scheint auch dieser gelungene Film wieder zu Ende. Doch das macht ja nichts: Das Gute ist ja, dass wir ihn gleich wieder von vorn laufen lassen können!

.....
: **Publishing pages with reference possibility:** :
: <https://www.vgbahn.de> :
: <https://shop.vgbahn.info/vgbahn> :
:
:

Readers' letters and messages

Zetties and Trainini in Dialogue

Thank you for each letter to the editor and all the feedback that reaches us. Write us (contact details are in imprint) - Trainini® lives from dialogue with you! Of course, this also applies to all suppliers in Z gauge, who would like to introduce innovations here. A representative sample is our goal. Likewise, here we note any events or meetings with significance to Z gauge reference, if we are informed in time.

Reader reactions to our last issue were more extensive than ever before. The cherry blossom diorama by Christoph Maier, which we presented as part of the annual theme, was particularly well received.

Our model article on the Schi-Stra-Bus (rail-road-bus) caused even more excitement, which above all led to inquisitive as well as helpful calls to the editorial office and triggered further research, the results of which editor-in-chief Holger Späing would like to publish in a print magazine in the first half of 2021.

The focus of the calls, whose call times now add up to over nine hours, was on the visual material shown.

If the prototype V4 was already known to some readers, the existence of this last stage in two versions, which were only mentioned by Wolfgang Stoffels (BZA Munich) in a DGEG brochure in 1980, remained pure theory so far.

Alfred Gottwaldt (deceased curator of the Technical Museum Berlin) emphasised this in a specialist article in 1986. Doubts about the correctness of the conclusion were, however, to be noted. In **Trainini®** 7/2020, a work exception apparently provided the first pictorial evidence for the version that did not use a lifting stamp. These doubts have thus been dispelled.

Also unknown was the name of the designer, Ulrich Kaiser (Wilhelmshaven), who had developed the rail-road buses for the German Federal Railways. Based on Bundesbahn files, Herbert Gretzschel (BZA Munich) had always been named as the "creator." According to the current state of affairs, however, only the idea and the development impulse for the two-way vehicles for passenger transport can be attributed to him.

Question about the electrical controls of the Shizuoka diorama:

Your magazine is great, I've been reading it for x years, I think since the beginning! You help all Zetties with it, because the articles are well chosen and very understandable!

I have a question about the article starting on page 37 of the above mentioned issue, here especially page 45 and 46 of the paragraph "The PWM speed controller was bought for little money from a big internet department shop".



Unfortunately the author did not specify which PWM controller this is and it is not so easy to see on the picture (...). At the end of the article there is also no link to the author's information, (...)

I would be very happy to get a feedback, because the "Shortys" have done it to me, the "control" available for this from Rokuhan, not really. Thank you very much in advance for your efforts!

Haralds Romeis, Offenbach

Editor's reply: We have submitted this letter to the author and our translator Christoph Maier for reply and asked to be allowed to share it with all readers.

He writes: "I purchased the PWM speed controller you mentioned for about 10 EUR from Amazon.de. It is a model with the bulky name "UEETEK 1203BB 6V 12V 24V 3A 80W DC Motor Speed Controller (PWM) Adjustable Reversible Motor Driver Switch" - see https://www.amazon.de/gp/product/B072V8LHDY/ref=ppx_yo_dt_b_asin_title_o05_s00?ie=UTF8&psc=1.

Maybe I could have mentioned this more clearly in the article. On the other hand, it is one of those distribution channels where the actual seller is a Chinese company, and Amazon only takes care of the shipping, so I was a bit confused about the correct manufacturer and reference.

Anyway, I am very satisfied with the speed controller, itself. The decisive factor for me was the possibility to install the device via a front panel directly in the diorama base. However, I had previously replaced the rectangular rocker switch for changing the direction of travel with a toggle switch, which looks better in my opinion and for which only a simple round hole had to be provided.

Regarding the driving characteristics I can only say that this little thing serves me very well; the Shortys run very well with it, just like my "real" Rokuhan locomotives, and also items from Märklin, MTL and AZL. I now use the same model for my Z-scale test circuit and a small N-scale tram project. But, I should mention that I have not measured the electrical parameters of the device, and I cannot say anything about its long-term use.

Reader's delight about Märklin's "Kittel":

I also received the "Kittel" at the end of June through my dealer. Nice piece. I then let the Kittel run for 10 hours on the recommendation of the test from a few years ago. It goes over everything without a problem.



Since Märklin has resumed delivery, other customers have been delighted with their model of the Kittel steam railcar (item no. 88145), as in this case our reader Rainer Liesec.

But it will not be any faster than with transformer position 150. But the part has to be handled very carefully. I have removed the rear entrance steps and “secured” them, if I should also do it in front.

Rainer Lisec, Dresden

Editor's reply: Our test report mentioned by Mr. Lisec was published in **Trainini®** 5/2018.

Z Gauge worthy of the title at Miba:

The (still) current issue 9/2020 of Miba shows a track Z motif on its front page for the second time this year. The attachment to the cover story, which is announced here as a “sensation in 1:220” with the statement, “It doesn't get any finer than this,” was created by none other than our editor Dirk Kuhlmann.

With detailed explanations of the idea, implementation and the game concept of “Bad Rothenzell”, the builder and author explains everything the reader wants to know in a comprehensive and entertaining way. An overview drawing and attractive photos are a matter of course.

For this reason, and also because this installation has deliberately not yet been presented in our magazine, we would very much like to recommend this Miba issue to our readers.

Further and for the time being last fair cancellation:

Due to the continuing restrictions and possibly even tightening restrictions again in view of recent developments, the last autumn fair in the model railway sector has now been cancelled, for which, there was still hope.

Schall-Messen announced on the 7th of August that there will be no Faszination Modellbau including a real steam meeting in Friedrichshafen this year. Originally planned for the 30th of October through the 1st of November, the fair was also supposed to have the label “International Model Railway Exhibition” attached, after the venue Cologne was probably finally buried.

This decision was based upon common sense and a sense of responsibility, emphasises Bettina Schall: “The current uncertainties among exhibitors and visitors, for example with regard to possible travel and employee secondments, demand that we now look forward to 2021 pragmatically and confidently. And the fact that the time is now at an advanced stage also argues in favour of a cancellation.

Cooperation partners and visitors had waited a long time for concrete information, but official regulations and delays in decision-making had forced them to be patient. But now it's time to look ahead: “Exhibitors and visitors alike should continue the success of recent years in 2021,” according to Bettina Schall. According to the announcement, the decision to cancel the event was made after intensive and constructive discussions with representatives within the industry.



Märklin deliveries since the end of July:

Internationally, the recently delivered Märklin novelties appear to us. We would like to start with a model that was already available at the editorial deadline of the last issue and inadvertently no longer found its way into the news.

This is the NOHAB diesel locomotive of the TMY 1100 series (item no. 88636) of the Swedish private railway TÅGAB. The prototype had been painted for filming by the American Great Northern. Technically, the model corresponds to the further implementations of this locomotive type from the latest editions with a housing made of metal-filled plastic.

The second locomotive model that has arrived at the dealers is the class 212 diesel locomotive of DB Fahrwegdienste GmbH (88217) in traffic red design for era VI. It has direction-dependent light changes by LED (warm white/red), and a bell-type armature motor of the latest design.



With the 212 036-8 from DB Fahrwegdienste (item no. 88217) Märklin has delivered another model of the V 100 in traffic red. Technically, it is equipped with a bell-shaped armature motor, which is state-of-the-art.

The “Green Cargo” freight wagon pack (82533) is part of the Swedish TRAXX implementation from the spring new products, and consists of two DB Schenker Rail Sdgkms 707 type pocket wagons with matching truck changing tables and two Ermewa SA Zacns type articulated tank wagons for transporting aviation fuel. The cars are declared for Era VI.

Swiss railway enthusiasts are served by the type Hbbins sliding-wall wagon of the paper manufacturer Tela (82384). The prototype of the private car was used by the SBB and was built in the mid-nineties (Era V).

The Pwg pr 14 (86090) goods train baggage car, which has been known in its basic form since 1972, has also arrived at the dealers, but instead of the stamped part it now has a lasered sliding door made of hard cardboard. Nevertheless, it cannot deny its age, because the mighty guide rails have remained.

VGB now taken over by Geramond:

Already on July 1, 2020, Verlagsgruppe Bahn (VGB) was taken over by Geramond after approval was received from the cartel authority. This means that, after Alba-Publikation, another railway publishing house now belongs to the portfolio of the Munich-based group.

The change in VGB's imprint can be seen, among other things, in the appointment of two new managing directors, who have replaced Thomas Hilge in this function. At present, a review of the current situation is underway, and, so far, no comment has been made on the details.

A press release announced by the management had not been available by the editorial deadline, nor did the offered and promised telephone call take place, so that further information is not possible at this point.

However, the change in ownership means that there is now only one other independent specialist publisher for railway topics, EK-Verlag in Freiburg (Breisgau), which offers trade journals, photo calendars and high-quality specialist books with a noticeable market penetration.

This, as we know from many conversations, telephone calls and correspondence with various authors, readers and customers, publishers and industry insiders, raises great concerns for the future. Many planned titles and projects see these people at risk for the future.

In particular, the fears repeatedly expressed are directed at the presumed motive for the takeover of the publishing house: Does Geramond want to strengthen its position vis-à-vis EK-Verlag with VGB because in recent years, it has invested heavily in demanding and high-quality specialist books, for which Freiburg previously had almost a unique selling point?

Will the VGB programme only be streamlined, thus clearly separated from the Alba publication and Geramond and then continued independently? Or was it rather a matter of eliminating an unloved competitor and thus strengthening one's own position?

In the interests of all employees of Verlagsgruppe Bahn and also its customers, Geramond should, in our opinion, quickly take a stand and make a clear statement. This is also a matter of trusting loyal readers, especially those with higher expectations.

New special models at 1zu220-Shop:

Whether with or without Altenbeken, the Lgs 580 Tank Container car with Westheimer tank container, which Jörg Erkel presented as a special car for the exhibition in spring, was sold out in no time.



Another Lgs 580 container wagon with "Graf Stolberg Dunkel" tank container (item no. 49.346.41) is currently on offer exclusively. Photo: Jörg Erkel / 1zu220-Shop

What remained were customers who could no longer get hold of any of the coveted models. So the managing director decided to commission a successor model, to help all those who were left empty handed the first time around.

Due to the exclusivity of the first, limited series, it had to be a new design.

Thus, the wagon arrives with a new road number and a load in a different design. The reddish-brown container wagon is still used by Deutsche Bahn AG, but the tank

container supplied by HOS-Modellbahntechnik is now on the road for the Westheim beer brand “Graf Stolberg Dunkel” (item no. 49.346.41).

The basic vehicle has again been issued by FR Freudenreich Feinwerktechnik in a series of 48 units. At the time of going to press, this model was also largely sold out, so interested parties should not hesitate.

The wagon is only available from the 1zu220-Shop (<https://www.1zu220-shop.de>).

In the meantime, the bar/vat car of the type WGm 842.2 of the special train “Deutsche Weinstraße” (German Wine Route) with the road number 51 80 89-80 903-3 (98182) is also available. The WGm 842.4 (98172) type arbour car with the road number 50 80 89-43 914-7, which was also ordered from Märklin, has also arrived.

Both cars are painted in the ocean blue and ivory colour scheme of the DB colour concept of 1975 and on both sides the lettering “Deutsche Weinstrasse (German Wine Route)” in the DIN 1451 font DB.



As exclusive Märklin products, two cars of the special train “Deutsche Weinstrasse (German Wine Route)” are now available from the 1zu220 shop. They differ only in their car numbers and designations: the WGm 842.4 (98172; front) and the WGm 842.2 (98182; rear).

While the paintwork and printing are at the current level and correspond to the latest models with article numbers 87210 and 87211, there are also differences to them: for example, they have been given car roofs painted in a different white aluminium colour, and window frames embossed in a gold anodised colour. This does not correspond to the appearance or colour concept at the time.

We will, however, take a closer look at the Weinstrasse (Wine Route) special train and the model features mentioned above in a later article and make some suggestions. The subject of this article will be 3D-printed interiors for both cars, which are not yet available.

The current deliveries of AZL:

The ALCO RS3 with its two-axle bogies is now available in black paint with yellow handrails and PRR addresses (art. nos. 63308-1 to -3), while the EMD GP 38-2, introduced as a beginner's model, is now available again for the Southern Pacific (62501-5 / -6) with the "Bloody Nose" paint scheme.



As the next version of the ALCO RSD-5, an SP template (art. nos. 63312-1 to -3) was also selected with black finish. Like the RS3 mentioned above, it too has been modelled as precisely and individually as possible on its great role model.



The five-piece Gunderson MAXI-I stretchers also have a red frame for the SP. They are offered without (906510-1 to -4) and with containers from CAST (906510-1C / -2C) and OOCL (906510-30 / -40).

The ALCO RS3 is now moving forward for the PRR (art. no. 63308-1; picture above), while the RSD-5 will be painted SP this month (63312-1; picture below). Photos: AZL / *Ztrack*

Manufacturer photos of the current deliveries can be found under <http://www.americanzline.com>.

News from Faller in Güttenbach:

The accessory manufacturer from the Black Forest (<https://www.faller.de>) reports that it would like to pass along the VAT reduction in Germany, that is available through the end of 2020, to its customers via its own electronic sales organisation in the following form: A free product will be enclosed with all orders, which is based on the value of the shopping basket and which significantly exceeds the value of the VAT reduction.

In order to make shopping there worthwhile, we would also like to list three new products which have now been delivered and can be used regardless of track gauge: LED building lighting with controller (art. no. 180678), precision craft knife (170548) including matching saw blade assembly (170539), and flexible masking tape (170533).

New Products from NoBa-Modelle continue:

The Covid 19 crisis can sometimes be a good thing, at least from the customers' point of view. All of a sudden new implementations of NoBa models, which are already available, follow. Since the last editorial deadline, for example, new products have been added that can be used to liven up and enhance layout scenes.

The inspiration was unmistakably leisure activities of the warm season, which many of us probably miss at the moment. We would therefore like to list them here in full:

- Changing room (Art.-Nr. 4074)
- Ticket booth large (4075),
- Ticket booth small (4076),
- Excursion restaurant with observation tower (4122),
- Fast-food restaurant building (4123)
- 6 Tree stumps (10318),
- Equipment for a miniature golf course (10507),

- Playground equipment (10604R),
- Skating rink with figures (10605R) und
- Diving tower for a swimming pool (10606R).

The Caterpillar D11 is a large and modern bulldozer (6508 / 6508R) in the form of an unfinished or finished model, and can be selected with either of two different printing processes.

A smart idea was certainly the following conversions based on Rokuhan's Shorty bogies: a ghost wagon "Container" (5308.1) and the short ghost wagon "Vieh" (5309.1), the prototype of which was in fact a bogie wagon despite its short length.

It was designed by the Deutsche Reichsbahn-Gesellschaft to carry expensive horses in high-speed trains. The article numbers here refer to the finished model versions.



The modern Caterpillar D11 bulldozer is also a powerful tool in Z-gauge. Photo: NoBa-Modelle.

Autumn new products from Andreas Nothaft:

Andreas Nothaft (<https://www.modellbahndecals.de>) has presented some new decals as autumn novelties, which are already available and are also offered for all gauges. For Z gauge some of the sets are more interesting for self-build projects such as 3D-printing, as no one would sacrifice an expensive SZL model for a redesign.

The following new decal sets are now available:

- Lok 218 054 or 218 055 der Pressnitzalbahn including the current sign "rented to DB-AG;" Epoche VI (Art.-Nr. 6610)
- Various station signs as designed by Horst Meier, usable from Epoche II (6611),
- Series Re 6/6 (620) in current design of Rail-Adventure; Epoche VI (6612),
- Matching the passenger cars is now the labelling for the restaurant car of the SBB (6613), and
- In addition to the existing S-Bahn networks are also the decals for S-Bahn Rostock (5983).

Wide range of colours for Micro-Trains:

Deliveries at MTL show a great variety of colours. The C&O cameo test vehicle number 6 (item no. 505 00 426) is still quite muted. Its colours are well known, but here again they have been applied on both sides in different designs.

In seven different designs, the goods train attendant car, which is very well known in the manufacturer's range, was pulled through the colour pots. It is available in yellow, green and red for the CSX, ATSFNS, GN, C&O, NP and UP (535 00 420 to -480).

MTL models are available in Germany from Case-Hobbies (<http://case-hobbies.de>), among others.

Japanese heavyweights from the house of Rokuhan:

Rokuhan has announced a heavyweight and in the meantime he has also presented one. A 16-axle heavy transport vehicle together with a transformer as load, some of which already look almost monstrous, is the autumn new product 2020. However, the fine parts used prove the extremely precise implementation.

The huge model, which cannot be overlooked even on a scale of 1:220, and whose prototype is driving on the Cape track (1,067 mm), has also remained surprisingly light because the chassis has not been cast in metal. The special vehicle can be pulled by almost all locomotives of the programme.

Individually, it is offered in two different versions (art. nos. T037-1 / -2), which are also loaded with different transformers. The models listed as private cars have a smaller wheel diameter, which was also taken into account in the models. Rokuhan states the minimum radius as 145 mm.

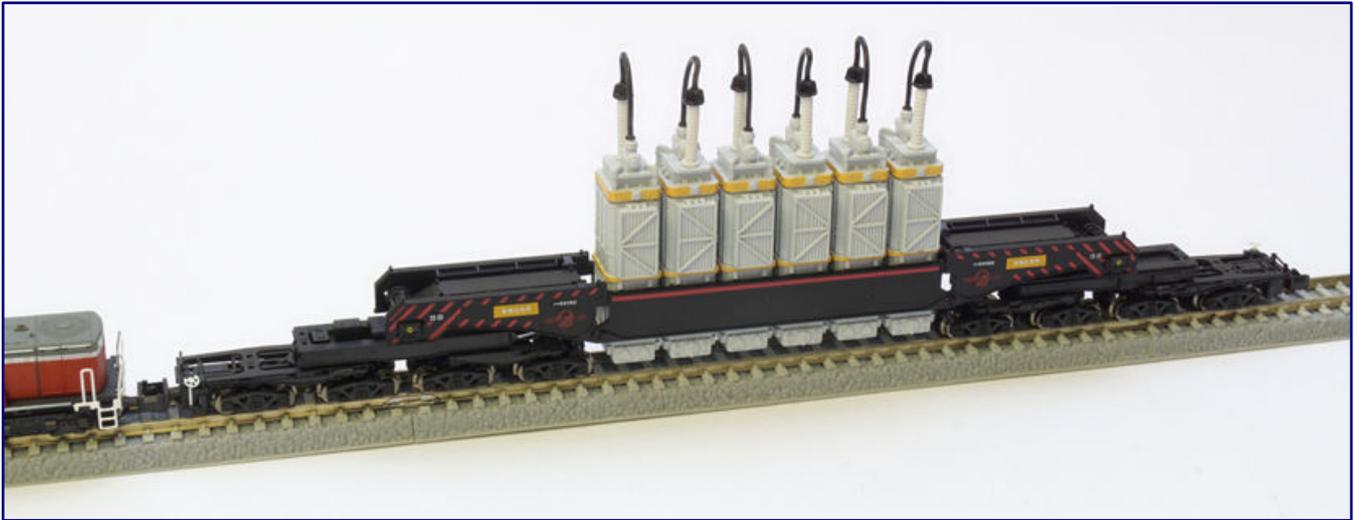


The train set T037-3 simulates the transformer transport “Operation Yashima.” For a prototypical train you need one more transport wagon (available separately or in this combination) and two more diesel locomotives DD51 (also available separately or via this combination).

It is not yet known whether the different versions of this vehicle are still offered in the European programme via sales partners. Nevertheless, we would like to introduce the new product using the example of a train set.

The pack (T037-3) in front of us consists of a DD51 diesel locomotive and the SHIKI880 transformer transport wagon. The freight wagon can be given an individual company number by means of the enclosed markings. End plates are also included as accessories for gluing (with double-sided adhesive tape).

The background of this solution is revealed by the picture on the packaging: The template of this composition, “Operation Yashima” on the Shimofutakoyama branch line of the NERV railways, was travelled with two of the heavy goods vehicles and was pulled by three locomotives of the DD51 series.



As this is a new shape, we are showing the 16-axle transformer transport car (without rub on lettering) from the new train set again individually with its details.

So if you want to reproduce them, you need another wagon and two locomotive models. A manual in Japanese and English is enclosed with the book cassette, and explains how to attach the end plates, replace the couplings on the locomotive and add a road number. It also shows how to remove the side panels and unload the transformers.

With regard to the central buffer coupler and bogie design, it is also worthwhile for US railroaders to check whether the wagon can also be used in a modified form on systems based on the North American model. It would certainly be an eye-catcher there.

A new product also for Full Throttle:

After it was said last year that the US small series manufacturer WDW Full Throttle (<http://www.wdwfullthrottle.com>) was withdrawing from the market for health reasons, a new product has now been added to its website after a seven-month break.

Offered here is a double pack of reconstructed 34-foot refrigerated cars with wooden walls, which are declared as Canadian National repainted (item no. FT/B-9018). However, this repainting does not refer to the models, but to a redesign of the prototypes.

Models from WDW Full Throttle are available in Germany from Case-Hobbies (<http://case-hobbies.de>).

Herpa aircraft novelties for the end of the year:

For November and December 2020 some interesting aircraft models from Herpa are announced again. Model railroaders who have either developed a collecting passion here or know how to accommodate an airport section on their layout will be pleased about them.

The new US military transporter Lockheed C-5A "Galaxy," manufactured in resin, is certainly too big for most layouts, so we will refrain from a closer presentation at this point. But among the civil machines of the "Wings" product line in 1/200th scale we found the following announcements:

Aero Lloyd Douglas DC-9-30 (Art.-Nr. 571012),
Lufthansa Fokker F27 "Friendship" (571029),
Siberia Airlines Tupolev TU-154M – RA-85619 "Julia Fomina" (571036),



Due to its striking colours, the Aero Lloyd Douglas DC-9-30 (Item No. 571012) is sure to be an attention getter. Picture: Herpa

Aeroflot Antonov AN-24B – Demonstration aircraft 1969 (571043),
Balkan Bulgarian Airlines Ilyushin IL-18 (571050), and
SAS Scandinavian Airlines ATR-72-600 (571067).



At the time of the announcement, the model for Lufthansa's Fokker F27 "Friendship" (571029) is already well advanced. Photo: Herpa

The Douglas DC-4 of TWA Trans World Airline (571074) should also be very interesting for North American implementations, as it was once one of the most popular airlines in the world.

In the Snap-Fit range we would like to mention the following new products:

- S7 Airlines Airbus A320neo (612753)
- American Airlines Airbus A321neo (613019), and
- CSA Czech Airlines Airbus A320 – new colours 2020 (613033).

Imprint

ISSN 2512-8035

Bibliographic information of the German National Library: The German National Library lists this publication in the German National Bibliography. Detailed bibliographical data and editions can be found in the DNB catalogue at <https://portal.dnb.de>.

The publication of **Trainini Praxismagazin für Spurweite Z** is voluntary and non-commercial. **Trainini German Magazine for Z Gauge** does not aim for any sources of income. This publication is governed exclusively by German law.

Contributions marked by name exclusively reflect the personal opinion of the author. This is not necessarily the same as that of the editor or publisher. Unless otherwise indicated, photos are taken by the editor.

Board of Editors:
Holger Späing (Editor-in-Chief)
Dirk Kuhlmann
Joachim Ritter

Correspondent North America:
Robert J. Kluz

English translation:
Alexander Hock, Christoph Maier, Martin Stercken

Further voluntary work: Stephan Fuchs, Torsten Schubert

Licensed **Trainini Discussion Group** (<https://www.facebook.com/groups/1597746057122056/>): Michael Etz (**Trainini Locomotive Doctor**)

Publisher and V.i.S.d.P. is Holger Späing, Am Rondell 119, 44319 Dortmund; Contact: 49 (0)231 9598 7867 or by e-mail to [redaktion\[at\]trainini.de](mailto:redaktion[at]trainini.de).

Advertisements of events and advertisements of third parties are free of charge, but will only be accepted after availability and recognisable track Z reference. They appear separately from the editorial part on the sole responsibility of the advertiser. Advertisements from small series providers always have priority.

Letters to the editor must be submitted in writing by post or e-mail to [leserbriefe\[at\]trainini.de](mailto:leserbriefe[at]trainini.de), stating the full name and address of the responsible reader, and are always welcome. Publication is reserved to the editorial staff. The editorial team always endeavours to present a representative picture and therefore to take every submission into account.

By submitting pictures, photos and drawings, the sender agrees to the publication and indemnifies the publisher against any possible claims by third parties. This expressly includes a future repetition in the magazine, annual video as well as in brochures and posters.

All company names, trademarks and designations mentioned in this publication belong to the respective manufacturers or rights owners. Their reproduction takes place without guarantee of the free usability. For misprints, errors, price quotations, product descriptions, building specifications or transmission errors of any form whatsoever, the editorial staff and publisher assume no liability.

Trainini Praxismagazin für Spurweite Z is published monthly (without guarantee) and is available to all interested model railroaders, especially friends of gauge Z, to download free of charge and for a limited time from <http://www.trainini.de>. Downloading may incur third-party connection and network service provider costs. The placement of only the complete magazine on other domains is expressly permitted after it is no longer available on **Trainini**'s own pages, and as long as the download is not offered for a fee.

All contributions, photos and reports are subject to copyright. Translation, commercial printing and any other form of reproduction, even in part, require the prior express consent of the publisher. Unauthorized commercial use will not be tolerated.

Trainini® is a legally protected trademark, registered in the register of the German Patent and Trademark Office (Munich), No. 307 30 512. The trademark is owned by Holger Späing, Dortmund. Misuse will not be tolerated. All rights reserved.