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and Prototype

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Trainini

German Magazine for Z Gauge



20 years

A TGV from Japan

Steam out of the Printer
A Tractor Shed for our Winter Layout

Introduction

Dear Readers,

The time has come: **Trainini**® is celebrating its 20th anniversary! We launched in mid-August 2005 and have experienced rapid growth in the months and years since then.

What started as a small gap filler in the Z gauge information structure has grown into a fully-fledged model railway magazine that is known far beyond the boundaries of the scale it covers.



Holger Späing
Editor-in-chief

Today, we can proudly say that we are one of the five, and probably even one of the three largest trade journals in the field – which is quite an achievement for a magazine that is produced exclusively by volunteers and has no print edition.

This is also evident in the letters from readers that we enjoy receiving every month and in reports from all over the world. In this anniversary month, we are once again presenting homemade models whose proud owners are based in the United States and Japan.

This brings me to you, dear readers. Without you, none of this would have been possible. Month after month, growing numbers of you remain loyal to us. It is only through this that you all together provide us with “fuel” for a steady stream of new topics and, I must honestly add, a voice in the market, which we always try to use for the benefit of our community.

Personally, I appreciate just that about the culture we have been successfully cultivating together for 20 years now: there is no complaining or “rumbling”; we are not part of the gutter press. However, dissatisfaction with a product or a manufacturer needs to be addressed – respectfully, in style, and with decency.

If we learn of an issue, we first try to understand expectations, moderate, follow up, offer ideas or suggestions, bring about improvements, and bring the two parties together so that the most beautiful hobby in the world becomes a source of joy again.

Many of you will not be able to relate to these words. All the others who have actively contacted us know all the better how to classify it. Personally, I hope and wish that we have resolved every case behind the scenes quietly and to the satisfaction of both parties.

Sometimes it takes a little longer. This issue has also been (far too) long in coming, especially as we are in the midst of our exhibition preparation. Please honour us with your presence and visit us on 4 – 5 October 2025 at the **Trainini Anniversary Exhibition 2025!**

We have also come up with something special for **Trainini TV**: our upcoming anniversary episode spreads holiday cheer and is dedicated to a model theme that is far too neglected in model railroading. All of us on the editorial team wish you lots of fun!

Sin-Z-erely,

Holger Späing

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We thank Martin Grübele and Goushi Koike for their contributions.

Date of publication of the German language version of this issue: 1 September 2025

Cover photo:

The TGV PSE marks the beginning of high-speed transport in Europe. Our reader's train transports its passengers from Paris to the warm south of France at high speed. Photo: Goushi Koike

Self-built steam locomotives

CAD to the desired Model

Not everyone wants to wait years for their dream model. What's more, building your own model is particularly enjoyable and ultimately gives you a unique sense of achievement. Our reader Martin Grübele from the United States has found his way with CAD and 3D printing, which he would now like to share with the Trainini® community.

By Martin Grübele. Building my own locomotives seems attractive to me when using Märklin chassis, which are excellent in design, especially if I want to proceed relatively quickly and inexpensively. The locomotives of the 62, 65, 66 and 81 series, which I am presenting here, were developed, and built within just six months.

We start with planning and CAD drawing of the housings and move on to tips for printing the various parts from synthetic resin or metal for converting the Märklin frames, as well as the final painting and labelling.



All four models were self-constructed and produced using 3D printing. The 62 and 65 series were given a synthetic resin housing, while the 66 and 81 series (all from right to left) were made from more robust metal to increase their weight and pulling power. Once painted, this is no longer visible.

Only free or very inexpensive software was used so that the work steps are accessible to everyone. For printing (housings, attachments, and white decals), however, either a paid service provider must be used, or an appropriate device must be purchased.

Since the housings are to be produced using 3D printing (with its existing limitations), the first step is to find suitable models. An affordable print made of steel bronze generally has a resolution of 0.05 to 0.1 mm (Märklin model surfaces, on the other hand, have a resolution of 0.02 mm according to my measurements).

The rough surface is easily visible on ocean blue- and ivory-coloured electric locomotives, but on a black steam locomotive housing that has pipes running across its boiler, the difference is practically imperceptible.

In addition, the locomotive should fit on a reconstructed Märklin frame; the prototypical length and wheel diameter are important to me. No coupling wheels should be converted, only running wheels in some cases. However, compromises of up to 4% had to be made in terms of size for the models presented here so that everything looks consistent and fits together.

Lokomotiven

III

83862 Personenzug-Tenderlokomotive

Vorbild: Baureihe 62 der DR, im Zustand bei der Deutschen Bundesbahn (DB) um 1958.

Modell: Angesetzte Sandrohre, durchbrochene Stege, Anthrazitkohle, Windschutzblenden, Gehäuse aus Kunstharz. Triebwerk aus BR 38 umgebaut. Länge über Puffer: 78 mm.



III

83881 Güterzug-Tenderlokomotive

Vorbild: Baureihe 81 der DR (1928), im Zustand bei der Deutschen Bundesbahn (DB) um 1961.

Modell: Angesetzte Leitungen, Gehäuse aus Stahlbronze im 'Binder Jetting Metal' Prozess, Anthrazitkohle, Triebwerk aus BR 55 umgebaut. Länge über Puffer: 52 mm.

Highlight: Von der BR 81, mit 45 km/h Höchstgeschwindigkeit, gab es nur 10 Exemplare, die bis 1963 ausgemustert wurden. Hier zieht sie Omm 33/34/55 Wagen.

3



For a Märklin fan, it was also appropriate to create his own catalogue listing his self-built models and matching the style of the Göppingen publications.

Drawings of German steam locomotives with precise dimensions can be found at the German Railway History Society (DGEG; see info box at the end of the article). Based on these dimensions, a suitable Märklin chassis can be found, e.g., from the BR 55 for the BR 81 (four smaller running wheels), 38 for the 62 (reflects the longer distance between the rear driving/coupling wheels), 41 for the 65, or 64 for 66.

As already mentioned, there are minor compromises in terms of length and wheel diameter, but these are often necessary at Märklin for cost reasons. For example, their 7 mm coupling wheels are just between the prototypical 1,500 and 1,600 mm. The wheel flanges of the models often prevent an absolutely correct measurement.

Of course, all relevant illustrations should be examined closely, and the **Trainini German Magazine for Z Gauge** offers many good recommendations in its literature pages. The author also personally examined and photographed several prototypes (e.g., the 66 002 in Bochum-Dahlhausen).

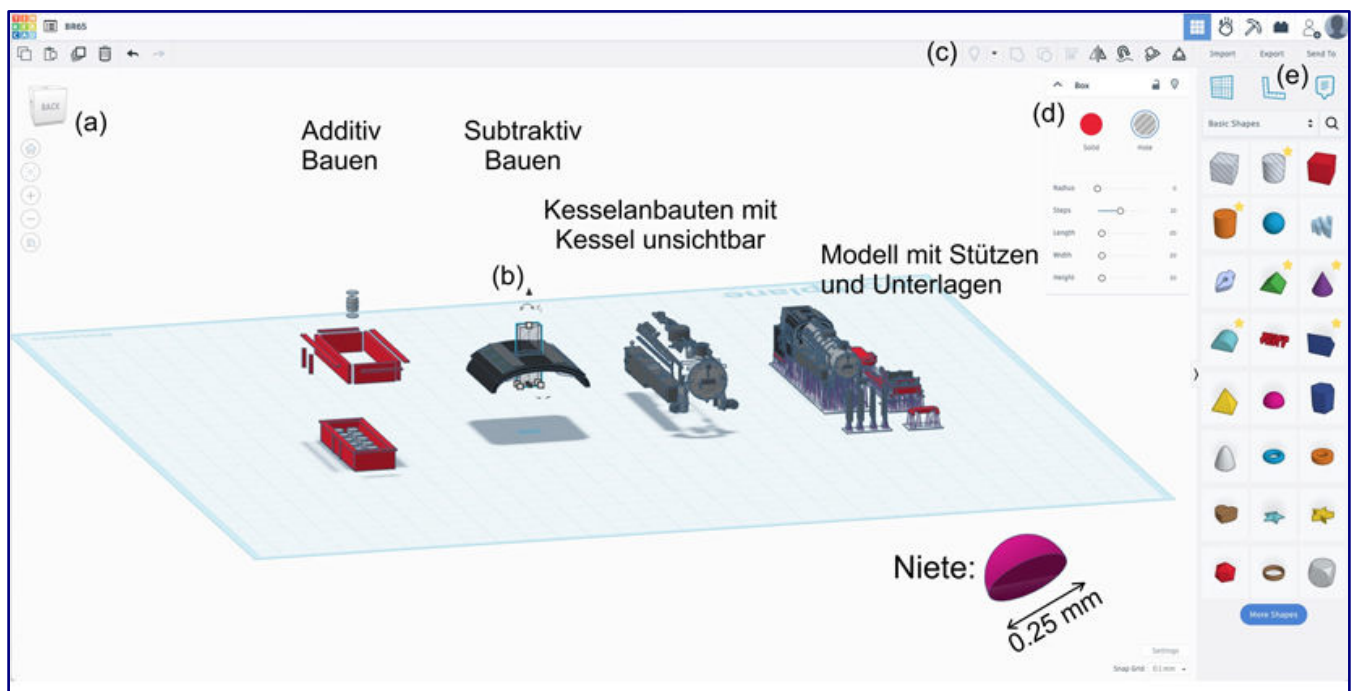
The construction

The free and relatively easy-to-learn software TinkerCAD can be used for CAD designing. It is also compatible with professional software such as Fusion 360. In TinkerCAD, simple basic shapes are used to build additively or subtractive: cuboids, cylinders, pyramids, and many more.

As a rule, walls should be at least 0.7 mm thick and attachments at least 0.2 mm thick. Parts should not protrude more than twice their width, or a maximum of 2 mm, without support. Supports (purple on the right in the picture under the locomotive) are necessary because the 3D printer cannot print detached parts that “hang in the air”: Each print layer must rest at least partially on the previous print layer, which in case of need is achieved with supports that are removed afterwards. The models here are all designed so that supports only need to be attached at the very bottom and as little as possible.

A good advice when developing kits is to divide the model into several parts with different colours. For a steam locomotive, this means providing separate ladders, grates, and containers (often bright red).

Only in this way can it be painted neatly later on. There are two aspects to be considered, and it is important to be patient and learn: accuracy of fitting (if one part is to be inserted into another, there must be 0.15 mm of clearance on each side) and consistent enlargement of details so that they are recognizable in 1:220 scale.



The design is created using an additive approach (using the example of a wagon load) and a subtractive process (a glass block creates a skylight in the steam locomotive roof). The boiler attachments consist of hundreds of cylinders, cuboids, cones, and other shapes; the boiler has been made invisible here with a click of the mouse. Next to it is the complete model with all printed parts; the printing supports are shown in purple and the base plate (for easy removal of the printed model with a blade) is shown in white.

Let's take rivets as an example: a 15 mm rivet would be just under 0.07 mm in Z gauge, which is below the print resolution of approximately 0.05–0.1 mm. A rivet looks quite good when made from a hemisphere of 0.2 to 0.25 mm (an enormous 4.4 to 5.5 cm in reality).

continued on page 8



The author takes a close look at the BR 66 at the Bochum-Dahlhausen Railway Museum before planning his model.

Creating perfect multi-part kits for locomotives, carriages, or buildings, whether commercially from die-cast parts or by an enthusiast from 3D-printed parts, is, at least in the author's experience, more difficult than building your own by hand, as precise planning is required and nothing can be "hidden" by ageing. What pays off with kits is that the same model can be produced several times relatively easily or repeated with minor variations.

Some parts made of other materials are also required for construction. For example, the lower halves of the sand pipes in the 62 series are made of 0.35 mm black wire, as completely detached printing parts would easily break.

Personal contact?

Author and designer Martin Grübele is also expected at the **Trainini Anniversary Exhibition 2025** on 4 - 5 October 2025 in Wasserkurl. There will certainly be an opportunity for technical discussions.

The openwork crossbars of the 66 series are made of etched brass so that they are not fragile. It is also easier and more attractive to purchase buffers as spare parts from Märklin and attach them separately, as buffers moulded from synthetic resin break off far too easily.



The Class 62 tank locomotive overtakes a freight train with its local passenger train. Its spherical door-to-door containers were also designed in-house and produced using 3D printing.

Once an STL file has been saved, it is time to prepare it for printing. First, the file must be checked for errors, which unfortunately can occur even if you work carefully at complex models consisting of hundreds of parts.

There are free software programmes available for STL repair, such as those from Formware. It is also possible that parts are not connected to form a single piece, if a small gap between related elements is not recognised.

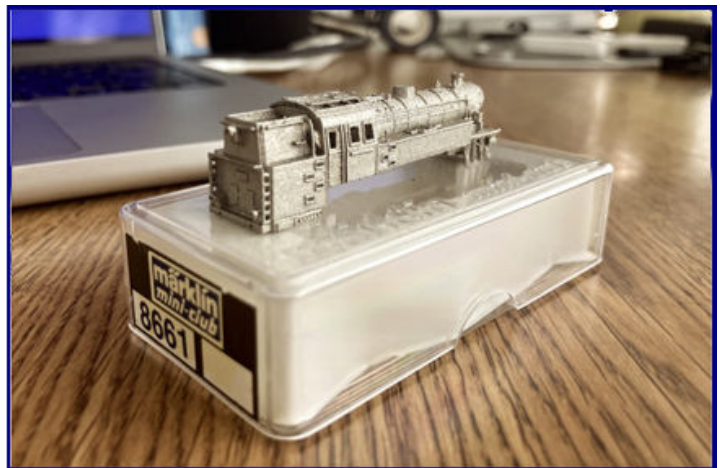
These can be found using the free Meshmixer software and its 'Separate Shells' function. Meshmixer can also make minor changes to the STL model, but it is best to go back to the CAD programme and build as accurately as possible from the very start.

The printout

Now to the printer. Even if it is to be a metal structure, everything must first be tested with synthetic resin. For example, the model size should be adjusted so that the structure fits exactly onto the chassis when pushed down: as can be seen in the pictures, the models here do not have any annoying screws on the domes.

For the purpose described, only photolithographic resin printers with a resolution of < 0.1 mm can be used in Z gauge. Filament printing is a hopelessly doomed endeavour, even with a 0.2 mm nozzle.

There are a number of good printers available for this purpose that cost less than EUR 350.00 and can achieve the required resolution of 0.05–0.1 mm (e.g., Mono M7 or Saturn 4 at the time of publication). Normal grey synthetic resin monomer is perfectly adequate for this. Of course, external printing is also possible in this case, but then the improvement cycle takes weeks instead of hours.



Below, you can see the synthetic resin test model of the BR 65 on the printer platform (left image). The printer should not be left open for long periods of time. The raw model (right-hand image), on the other hand, is made of laser-sintered stainless steel. The rough surface is recognisable and is improved by polishing with 0.02 mm corundum abrasive in alcohol before painting. The 'binder jetting metal' method produces a similar quality from steel bronze, but at about a quarter of the cost!

There is an excellent Miba brochure by Uwe Stehr on 3D printing for model railways (review in **Trainini**[®] 9/2020). The STL file is simply transferred from the computer to the printer via a memory stick or USB connection. When printing, cleanliness, the correct temperature (21–24°C) and the correct tension of the printing membrane are essential.

Always work with rubber gloves and under excellent ventilation. But do not allow sunlight to shine on the unfinished model. Sunlight contains enough UV light to cure the model prematurely.

The tension of the printing membrane can be easily tested: I tap on the membrane with a pencil eraser and use a free mobile phone app to measure the frequency spectrum. If it is below approximately 400 Hz, the membrane must be adjusted with a hex wrench or replaced.

Models can be printed on a 0.5 mm high base plate made of synthetic resin, on which the supports are placed. Using a craft knife, the whole structure can then be easily separated from the printing platform in one piece without breaking off any fine parts of the model. It is better to adjust the supports ourselves in the CAD program (using cones in TinkerCAD) so that there are as few as possible and they are strategically distributed.

A diameter of 1.5 mm is recommended at the bottom of the support, and 0.5 mm at the top towards the model. For very small surfaces, such as the lower cross-section of a pipe, it can be even smaller at the top.

After separating the model from the printing platform, clean it with a little isopropyl alcohol (IPA), dip it in water, clean it again with IPA until no cloudiness or haze is visible in the water when dipping.

Then blow off any moisture and leave to dry in the dark. Before the model is cured with UV light (or simply outdoors in the sun), it must be carefully examined for dust or small resin residues to ensure that the surface is as perfect as possible. Small residues can be easily removed with fine tweezers. Large flat surfaces are best printed horizontally, as this results in a single print layer and no steps or grooves are visible.

The chassis

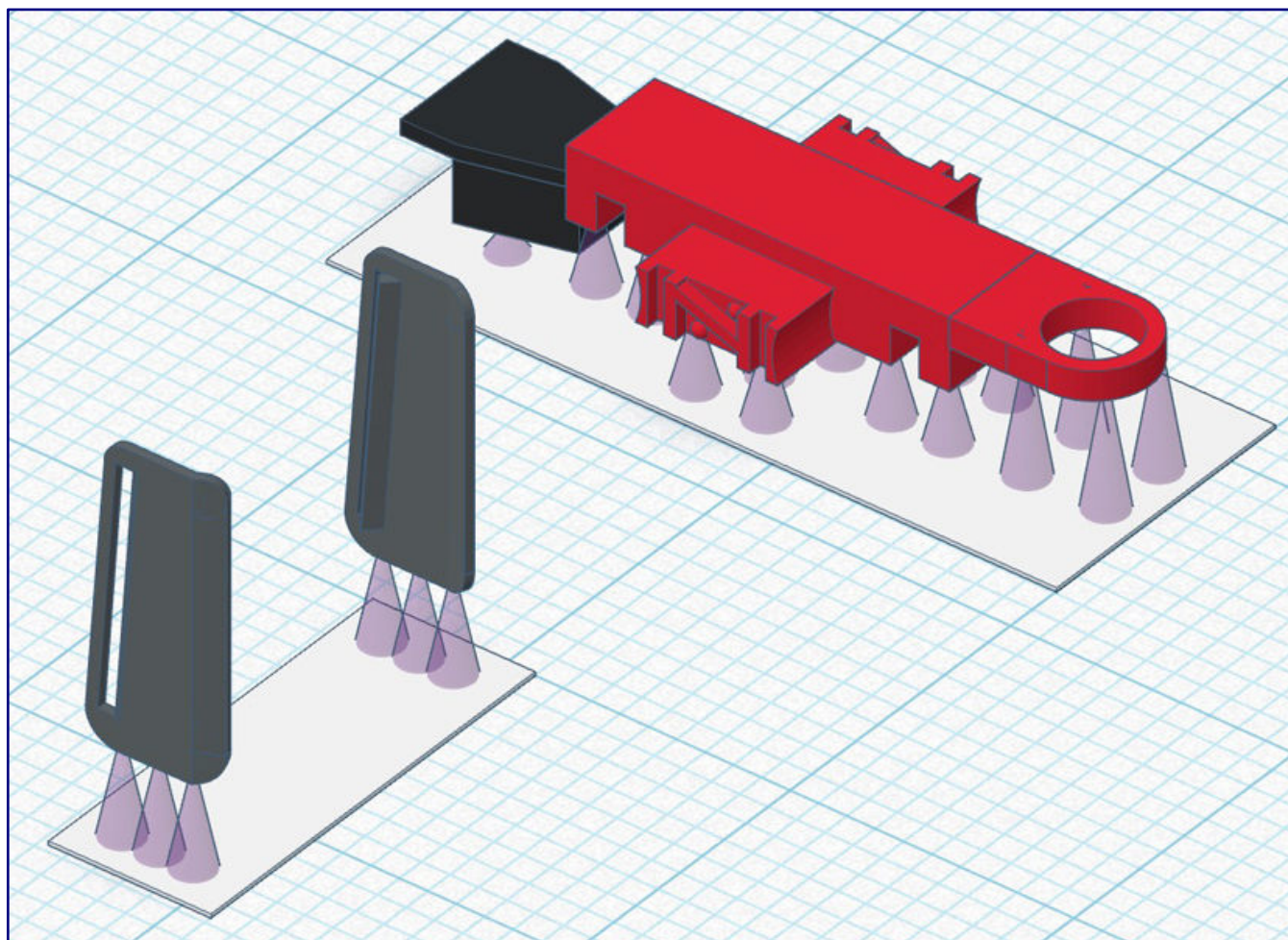
Now it's time to tackle the chassis. An important criterion for a Z gauge steam locomotive is that the motor must fit into the driver's cab, or in the case of a tender locomotive, into the water tank and coal bunker. Märklin's new bell-type armature motors have a large mounting bracket made of very hard plastic, from which 1 mm can be removed from the top side (usually the problem area).



The 66 series requires a brass-etched bar, which is still to be painted red (left image). On the chassis of the 65 series (right image), the bell-type armature mount was ground down so that the housing could be fitted. The holder for the front wheel has been shortened and has no coupling; for the rear wheels, a new holder with a coupling shaft has been printed from resin.

Alternatively, in some cases, the coal bunker can be extended by 0.5 mm in the design, which then also requires the driver's cab to be adjusted in size so that the whole thing continues to look harmonious. The most difficult part is converting the running wheels (not applicable to the BR 81 from BR 55).

If a larger wheel has to be fitted at the front (e.g., 1,000 mm instead of the 850 mm standard for the 66 series), I simply cut off the cover plate of the coupling shaft above the leading axle (using a hobby knife to cut off the melted plastic knobs that hold the sleeve in place) and deepen the notch for the wheel accordingly using a ceramic cutting disc on a small drilling machine.



Here you can see the volume representation of the CAD design of the Witte wind deflectors and the trailing bogie of the 65 series. A brass foil is glued to the top of the axle holder (pointing downwards here) to attach the wheels so that they can rotate (see also photo on the last page in ready-to-install condition).

Afterwards, I reinsert the wheel and glue the sleeve back on with superglue. However, if a two-axle bogie is required at the rear instead of a single running axle, it is best to print a completely new wheel carrier. I then hold the running wheels in position with a thin brass sheet.

Only when the synthetic resin test assembly fits the chassis exactly, do I move on to metal printing. This material is still the most cost-effective for such individual models with complex shapes, as it also promotes the highest possible dead weight. There are two possible methods for creating the housing: 'Binder Jet' and 'Metal Laser Sintering'. The first method is more cost-effective and produces good results in steel bronze.

With the second method, in which a laser melts layers of steel powder onto the model, the model can be made entirely of stainless steel. Models can be produced particularly cost-effectively in Asia, but this means waiting weeks for them to arrive due to postal delivery times.

However, it should also be emphasised that problems rarely arise once the model has been thoroughly tested with synthetic resin. Binder Jet does not even require the supports that are necessary for synthetic resin models or metal laser sintering.



66 002 is pulling a passenger train with freight transport (PmG). It has been fitted with larger leading wheels as part of the running gear conversion.

In the worst case, another 0.1 mm had to be filed off the chassis because the metal model can shrink slightly compared to the design dimensions. With a little experience, this can be easily compensated for by creating the CAD file with a dimensional allowance of 0.5%.

Final works

The coal in the illustration of the Class 65 parts consists of finely ground anthracite, which is glued onto a black piece of cardboard. Another layer of glue can be applied to the anthracite to form a pile of coal.

The CAD model of the coal bunker has a small step on the inner walls, onto which the cardboard is placed and glued. To illuminate the headlights, they must first be drilled out to 0.35 mm, then a 0.3 mm optical fibre can transmit the light from the Märklin LED light base to them.

The best way to do this is to glue the optical fibre to the Märklin light guide, feed it through the opening in the headlight and cut it flush with small scissors. A conical hole on the inside makes it easier to insert the fibre. Alternatively, a light guide made of clear synthetic resin could be printed that reaches the LED on the inside and fits exactly into the housing, as Märklin itself does with injection-moulded parts.

For painting the parts, I recommend a slightly darker, paler red than the RAL 3000 fire red specified by the German Federal Railways at the time. The resulting image then looks a little aged.

continued on page 14

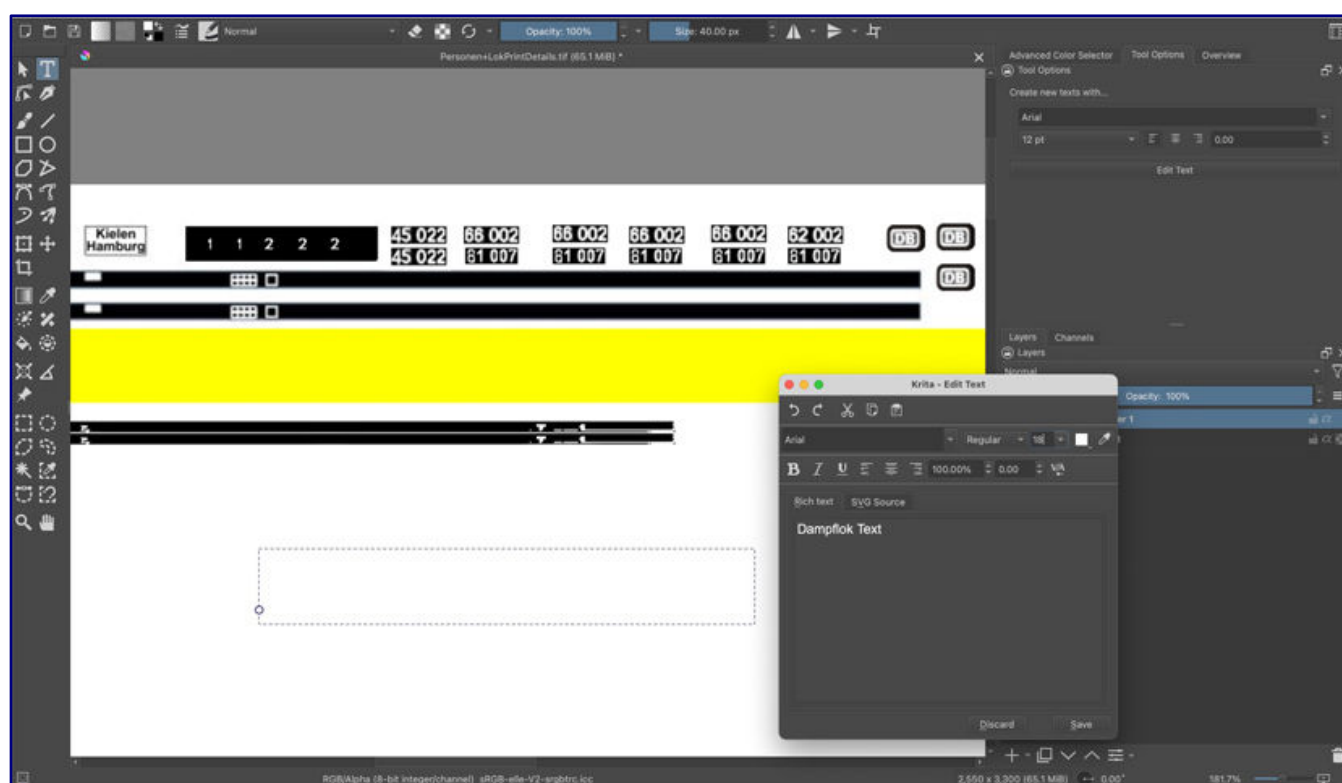


Photo on page 13, top:

Separately attached wires hold the wind deflectors in place, which is as close as possible to the original. These parts are always printed with resin, as separate parts are always charged extra for external metal printing. The holders and deflectors are fixed in place with tiny drops of superglue.

Photo on page 13 below:

Decals are drawn in Krita, which allows even the smallest letters of 0.1 mm to be created. The original file (or a PDF generated from it) can be printed on decal film by a print shop with a white ink printer, just like a normal image.

A matt black spray paint can be used as a deep black paint (RAL 9005), as can a spray gun with matt black paint. Apply several thin coats from all sides (including underneath) with patience, and it will work. This will make the pipes on the boiler, rivets and other details stand out well.

Painting with a brush simply does not work, no matter how steady your hand is: it leaves rough streaks on the tiny model. The finish on new Märklin steam locomotives shines a little too much compared to a sooty locomotive in daily use, so matt black can look better in photos.

Before taking photographs, any dust should be removed with a soft brush, as otherwise it will appear as bright shiny spots on the photo. This cannot be detected beforehand without a magnifying glass!



81 007, which is shunting two Donnerbüchsen (thunder boxes) here, has a metal housing made of steel bronze. The VT 925 waiting on the platform in front of it comes from SMZ.

Finally, everything gets put together. The crossbars are positioned on the side or front of the locomotive, buffers are attached at the rear and front, and everything is carefully and sparingly fixed with superglue. Particular care should be taken with the Witte wind deflectors, while the larger Wagner deflectors can simply be printed together with the boiler.

The modern Witte wind deflectors of the DB can be attached with four wires, whereby the 0.3 mm black wire is bent into a U-shape: 4 x 3 x 4 mm. Then I drill four holes in the housing, each 1 mm deep, which have already been taken into account and positioned during printing (as a drilling aid).



Who can recognise one of the steam locomotives presented in this report in the layout picture? Many other homemade models can also be seen here, including numerous freight cars, the V 20 diesel locomotive, and the heavy freight train tender steam locomotive of the 45 series (based on a Märklin 41 series chassis), which still requires some finishing touches.

The wires then protrude 3 mm from the surface of the boiler, which means that the guide plate sits approximately on the outer edge of the service platform, as per the prototype. Incidentally, the best way to bend the wire is with a toothpick. This allows you to set the desired width of the 'U' precisely and bend several wires repeatedly in exactly the same way.

Now the locomotive needs to be labelled. Most of us don't have a printer that can print in white, but the wet decals can still be designed yourself and then printed commercially.

The free Krita programme is perfect for this. This programme can be used to edit photos (e.g., dust removal), but also to draw white lettering on a transparent background. The lettering can also be purchased commercially (see info box).

After all this work, a beautiful model is a deserved reward. If you want to try it yourself, you will find an STL file for the class 81 standard shunting locomotive on the magazine pages under the 'Magazine' tab with the path 'Downloads'.

It is a good locomotive for practising, as no major work is required on the chassis and no parts need to be attached to the body. A photo of the 'little 01' in the form of the 62 series with a local train just overtaking a freight train hopefully shows that the self-made models can certainly hold their own alongside those from Märklin.

All Photos: Martin Grübele

All about CAD and 3D printing:

<https://apps.autodesk.com>
<https://store.anycubic.com>
<https://eu.elegoo.com>
<https://www.formware.co/online/repair>
<https://krita.org/de/>

<https://markforged.com>
<https://www.protolabs.com>
<https://www.tinkercad.com>
<https://www.xometry.com>

Parts requirements and labelling:

<https://hartmann-original.hier-im-netz.de>
<https://www.maerklin.de>
<https://www.modellbahn decals.de>

Steam locomotive drawings:

<http://dlok.dgeg.de>

Retrieval of STL files for the series 81:

<https://www.trainini.de/magazin/downloads>

Werbung

Come and visit us again on

Trainini TV



Our anniversary episode 43
„Light railway in the brickworks“
(German) available soon at

<https://www.youtube.com/TraininiTV>

The path to the first layout (part 9)

Kit Bashing a Tractor Shed

After preparing some details for our winter layout project in part 7 and building the timber framework of a tractor shed, we will complete this structure today, and install it on the layout together with other things.

After having prepared a few things to go onto our preformed winter layout, we are continuing today with placing these details on the layout. Slowly but steadily, we are thus creating the conditions for adding snow where still necessary to make all these details blend naturally into the winter landscape.

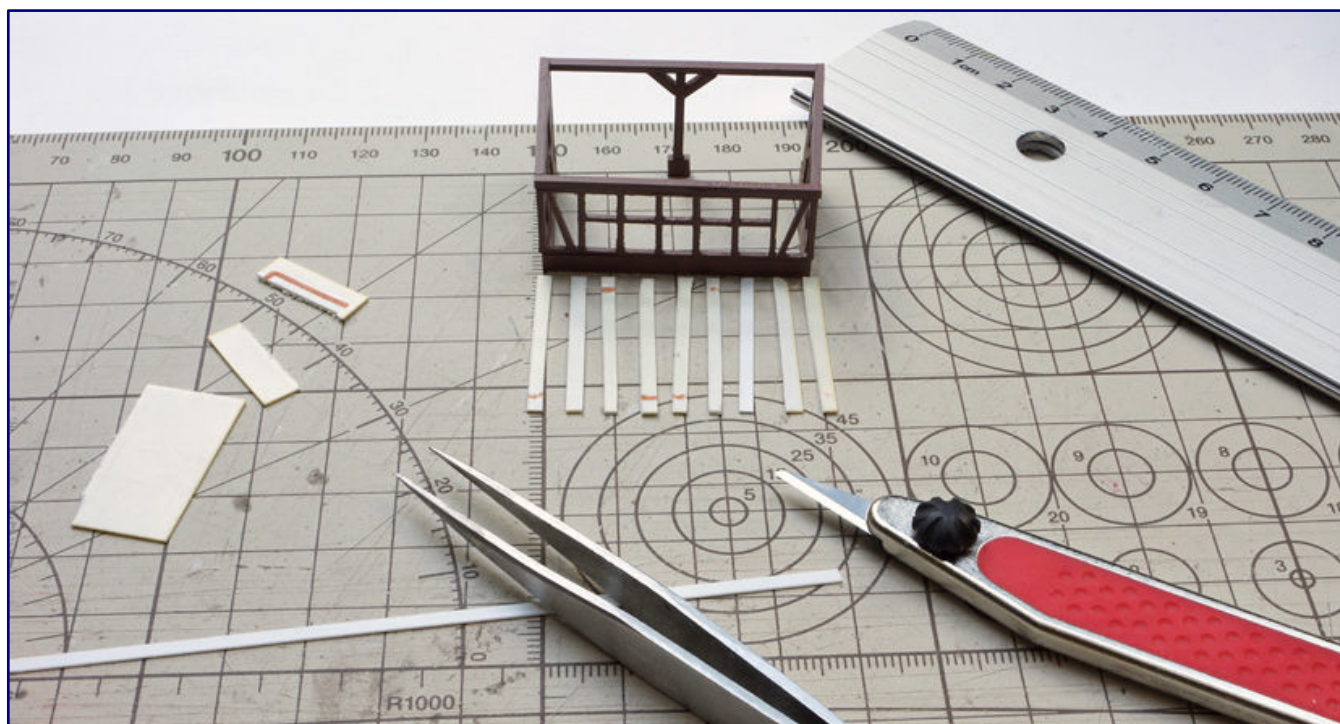
This will be an important step for creating an authentic look. But we still have a lot of work ahead of us to get there. The illuminated buildings, for example, will not be installed today, as we first have to create cable ducts for them on the layout base.



Today, the accessories are being installed in the landscape. The small park behind the railway station is also slowly taking shape

There is still a lot to be done on the agricultural shed, which will be our most important task in this episode. So far, only the frame of the structure has been built. What is still missing for it to fulfil its function of protecting agricultural equipment against the elements is a roof and side walls. We had already completed the painting of the frame with brown acrylic spray from Noch (art. no. 61173) and are thus now ready to cover the roof.

The first step at this point is the installation of (flat) beams, which support the weight of the roof and transfer it to the load-bearing walls. Once again, our material of choice is polystyrene.



Strips are cut from the roof panels of the kits that we used for kit bashing our building (picture above) and used as roof supports (picture below). Ten of these beam replicas are attached with plastic glue.

Leftover parts from smaller shelter kits from Klingenhöfer Miniaturen which we used for the frame of this build included two roof supports in the form of small PS plates. From these plates we cut the desired



After the shelter has received its roof substructure, the rabbit hutch (right half of the picture) is also prepared for installation: it required some sanding, an ochre-coloured coat of paint and a dark grey, almost black roof made of sandpaper. All-purpose glue will fix it permanently when the small hutch is positioned to the side of the shelter.

support beams and use the prototype roof to define the thickness of the beams. Both panels are cut into strips of the same width with the help of a circular table saw.

Laid out at suitable intervals in front of the structure, we determine a need for exactly ten beams. The leftover beams go into our spares box. Pattex Special Modelling glue can be finely dispensed thanks to the needle, so we use it to attach the pieces to the frame.

Next up is the rabbit hutch, which originates from a DIY experiment by the Klingenhöfer husband and wife team and was never produced in series. It saves us having to build it ourselves. We straighten a few protrusions on one side wall and the feet with a cosmetic file until it has smooth walls all round and stands wobble-free on our workbench.

We prepare a roof from a piece of brown hard cardboard (leftover from an architectural kit), onto which a thin strip of fine, black sandpaper is glued as a tar paper overlay. The hutch itself is then sprayed with an ochre colour (Noch acrylic spray, item no. 61172) which gives the structure the appearance of fresh wood. After drying, the roof can be glued on with Uhu Kraft and this part is ready for installation.

Correcting some mistakes on the shed

We now continue with the shed. The roof beams need their own coat of paint, so now is a good opportunity to check the current state of repair again. We discover some small gaps in the rafters that are too large.

To correct this we use Revell Plasto, a modelling filler that can be easily applied and smoothed into these joints. Thanks to the short drying time, we can soon continue with the sanding. To do this, we stick a narrow strip of the sandpaper that we have already used on the rabbit hutch onto the tip of a stirring rod (from Tamiya).



Joints and gaps that affect the appearance are filled with Revell modelling filler, sanded, and painted over again.

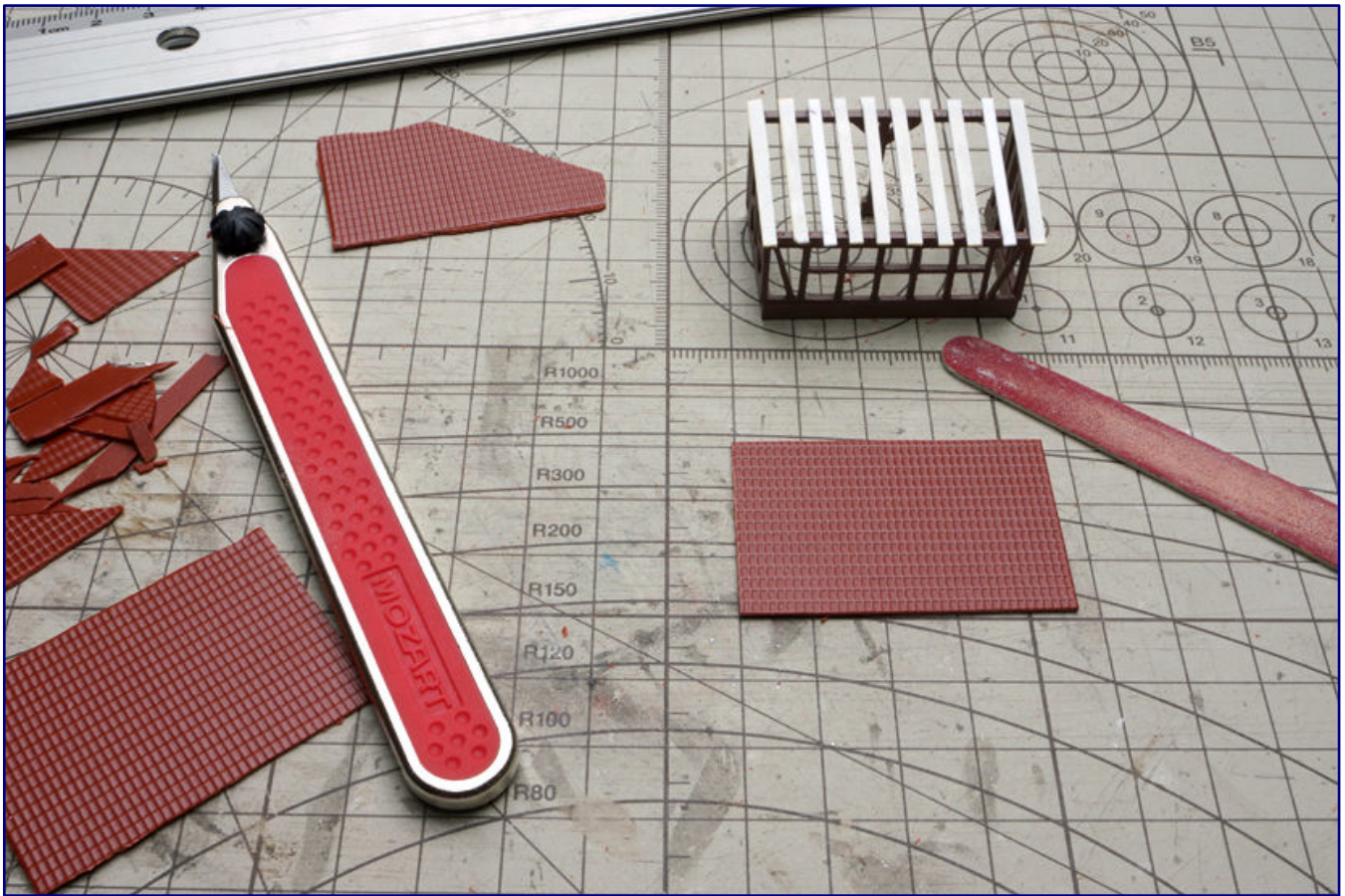
Once this touch-up has been completed, the final coat of paint can be applied. In this case, we use again brown acrylic spray from Noch (61173). The roof of the shed can now also be built.

We found that the roof tile panel from Schulcz (28-3503071) is perfect for the red pantile roof covering we had in mind. It comes from architectural modelling supplies and is designed to the usual 1:200 scale. Its thickness is 1.8 mm and therefore fits harmoniously into the overall dimensions.

It is not easy, however, to work with this material, which is apparently produced through a thermoforming process: it is very brittle and cannot be cut without breaking. But cutting it to length on the circular saw with great care and a suitable saw blade does the job. Since the material is most likely not polystyrene, the question of a suitable adhesive arises.

Pattex Special Modellbau glue turns out to work in the first attempt. We give it a chance because, according to the manufacturer, it can bond various types of plastics to other materials, including wood. In fact, it also proves its worth here, where it even must dissolve and penetrate a layer of paint in places.

As an alternative for the clay roof tile replicas, one could also use laser cut roof panels produced by MKB-Modelle. They are manufactured exactly for Z scale and newly produced ones are now available again from Modellbahn Union.



The tiled roof for the tractor shed is cut to size from a Schulcz sheet, which is available from architectural supply stores. The splinters in the photo show how fragile the material is. It took several attempts to get it right.

Before we start on the side walls of our shelter, we will now complete the remaining paint work. The roof remains untreated and without patina because it will be covered with a layer of snow later anyway and hardly any of it will be visible. Only the shapes of the tiles shall still be recognisable.

However, the foundations of the structure are still brown from the spray painting but should be concrete coloured. Iron grey from Revell's enamel paint range (78) is our colour of choice. The solvent-based paint needs to be stirred well before it is applied with a hairbrush.



Before the outer walls can be covered, we paint the concrete base iron grey with Revell paint.

Only later we realise that the paint makes for a glossier appearance than anticipated, most likely due to the age of our jar of paint. In addition, a second coat is required to touch up poorly covered areas. We remove the shine with a matt clear coat.

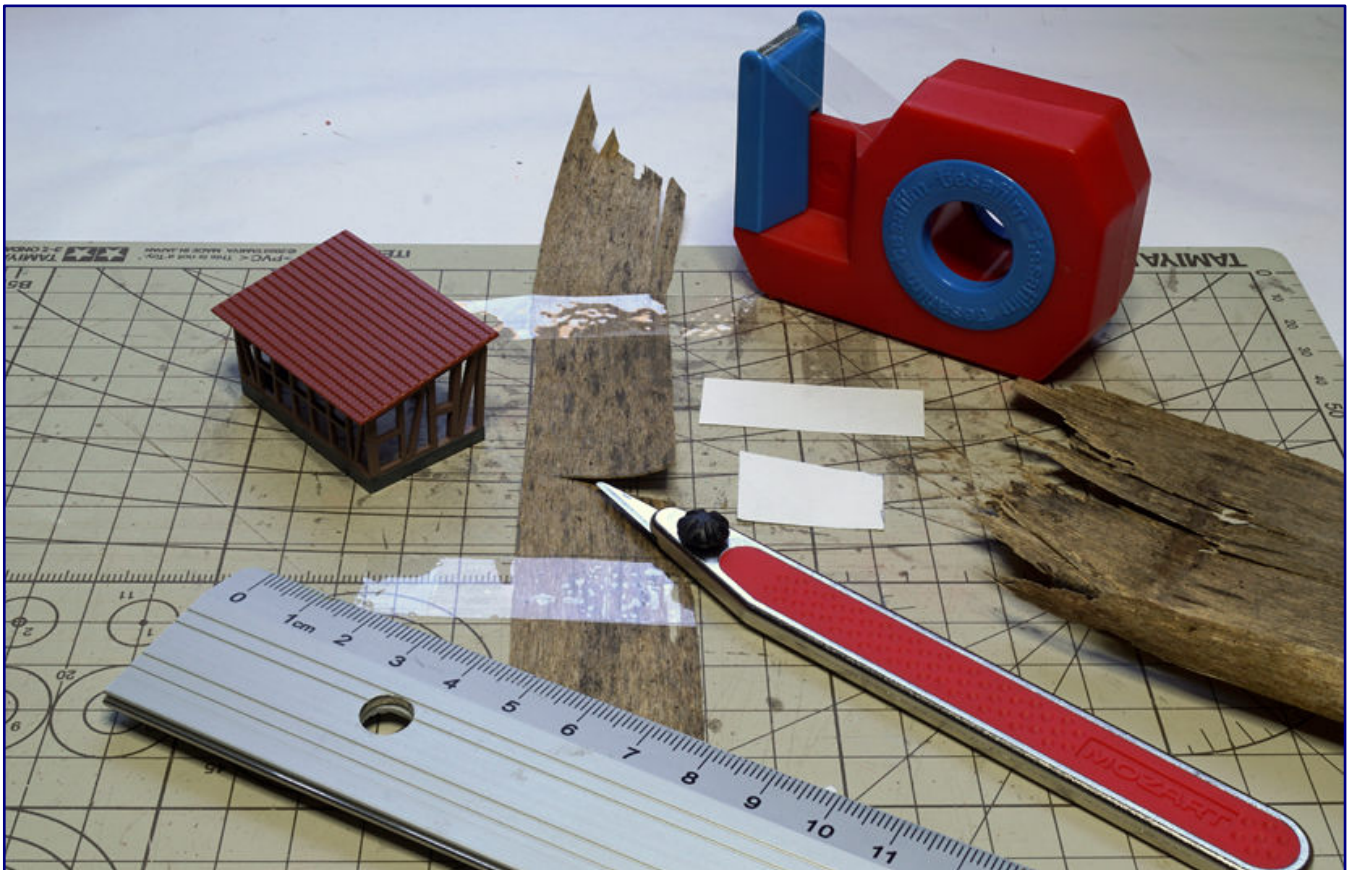
Now comes the most exciting part, which we are particularly looking forward to: modelling wood. This is a challenging task in modelling, because an unsuitable choice of material can destroy the appearance of any model.

Let's remember our footbridge (**Trainini**® 1/2025): We deliberately did not use plastic panels and profiles for this one either. Real wood was used, but it was given a colour treatment. And it was definitely worth the effort.

Weatherproof walls

Now, it's finally time to weatherproof the sides of our shed to protect the vehicles from the elements. In addition, we also want to place the rabbit hutch to the side, which would otherwise also be too exposed.

The walls of sheds like ours are still regularly covered with wooden planks to this day. The aim is clear, therefore, but the key to success is to choose the right modelling material. Wood is best imitated with the real material, as we have already noted. So a thin veneer would probably be the first choice here.



The weathered wood for the walls of the shed is made from peeled wood from an insect hotel. It is carefully cut with a sharp blade along the edge of a steel ruler. Precisely fitting paper templates (pictured) were created beforehand to determine the right dimensions and angles.

However, we would first have to stain it to give it a weathered look; our model is not supposed to be a new building that is experiencing its first winter. After all, the ravages of time have a special charm for the observer, especially in models.

A well weathered insect hotel in need of repair proves to be a lucky find. A layer of wood with the right degree of natural patina on the back wall is coming loose and has exactly the right thickness for our purpose.

Without peeling we thus obtain a piece of veneer and take it home. To permanently destroy any insect larvae and eggs, the untreated natural material is first put in the oven: no animal protein can survive 180°C for 30 minutes and it also sterilises the wood. The uneven colour and slight traces of moss are a perfect match for our plans.

The next step is to create three walls from the natural material. The first thing to determine is the direction of the grain, which must be vertical. Otherwise, the model would have no structural strength. A rough calculation tells us that we have obtained sufficient material, even in the case of offcuts and minor losses.



Glueing is done with Uhu Contact glue stick, which is unfortunately no longer available. Alternatively, a thin coat of Uhu Hart can be applied, which is allowed to flash off a little before the wood is placed on the structure.

We then proceed to make paper templates that will later serve as cutting templates. There are four right angles on the back wall and the basic dimensions correspond exactly to the area of the stud framework, with a small addition in height so that the wood protrudes minimally beyond the base of the plinth.

We find right angles only at the bottom of the side walls, the other two are determined by the roof pitch. Instead of measuring the angles, we use the bending properties of the writing paper. We add an allowance to the width of the side wall according to the material thickness of our veneer.

Once the paper templates have been cut, we don't notice any deviations, and can be sure to have worked correctly and with sufficient precision. So now we can start on the "real" walls. To do this, we first stick the strip of weathered wood to a cutting mat using cello tape. Then we also fix the first paper template to it.

We start by cutting across the grain. We deliberately use a Mozart craft knife for this: a good tool for good results! The fresh, extremely sharp blade is guided very carefully along the steel ruler several times without applying pressure. Slowly and without cracking, it cuts through the wood, without any accidental vertical separation of fibres.



The area behind the planned location of the tractor shed next to the railway line will be enclosed with a fence made of (repainted) spare pieces.

Two side walls and the rear wall are created within a quarter of an hour. The fitting test is also successful. The rear wall is glued onto the upright frame first, followed by the two side walls, which extend over the joint edge.

We use with Uhu Contact Kraftkleber (contact glue stick), which has unfortunately not been available for several years and was not in high enough demand but was ideal for these purposes. It combines the advantages of thin and almost invisible surface application with the holding power of liquid contact adhesives.

For our readers who are not lucky enough to have access to this glue, we recommend using a normal glue stick or a thin coat of Uhu Hart, which is specially designed for balsa wood and similar materials and has been tried and tested for decades. However, it should be allowed to dry slightly before the wall is applied and pressed down so that no adhesive can ooze out.

Securing the location

Our vehicle shelter is now ready for installation. At its intended location, we had previously identified the need for a fence to enclose the site. This is for protecting the site from the railway tracks so that free-range chickens or geese are not run over by trains. It will also protect the children in the yard from unfortunate accidents.

We separate the hunter's fence, which has already been pre-treated in the same colour as the framework, from the Kibri kit spares and lay it out loosely. This is how we determine how to shorten it. It is important to mark the locations of the posts.



A final positioning test of the shed with the attached rabbit hutch and the house helps us to find the right angle so that the vehicles can drive in and out whilst allowing viewers a peek inside.

Next and using a hand-held drill with a diameter of 1 mm, we create holes in the hard foam base at the exact distance between them and then glue in the posts with Uhu all-purpose adhesive. We also glue the two fence elements thinly at their point of contact.

The shelter can now move into its new destination. To be on the safe side, however, a final dry fit is carried out together with the farm's residential building. We want to make sure that the location and orientation are such that agricultural vehicles can drive in and out without any problems. The rabbit hutch should also be visible to onlookers.

Then the all-purpose adhesive is used again to secure the vehicle shed, followed by the small barn on the outer wall facing the farm building. With this, our work for today is slowly coming to an end.

continued on page 27



Photo above:
After another trial run, the monument, round bench, and advertising sign are erected on the street corner. We created an opening for the bare deciduous tree beforehand with a toothpick, into which the end of the trunk is glued.

Photo below:
Thanks to Uhu all-purpose glue, the two small barns are now also permanently attached to the layout. Other buildings will follow soon.

However, we still need to design the small, snow-covered park behind the railway station. We will also determine the exact positions for the round bench with the bare deciduous tree and the monument (all from Faller). It is also important that the advertising wall that we want to erect near this recreational facility is not completely concealed.

We use a toothpick to anchor the tree to the hard foam of the layout base. The round bench and then the tree can be fixed in place with all-purpose adhesive. The monument is also glued in place. We don't care about any gaps in the base as long as it is level, because any visible gaps will be later covered anyway with snow paste from Busch.



The landscape is progressing, but the majority of the buildings and the tree cover on the mountains are still missing. Before we can continue there, however, there is still a little snow flurry ahead.

The feet of the advertising wall can be easily pressed into the base as well. Once the height and alignment are correct, we also ensure a permanent hold by inserting adhesive into the tiny, perforated holes. All that's missing are the two wooden barns inside and outside the village, which are attached with a generous amount of all-purpose adhesive.

As the barns are without lights which might need future replacement, a permanent and non-detachable adhesive connection is ideal in this case. A critical look at the end shows that a lot has been achieved today with comparatively little effort: our layout is increasingly taking shape!

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„Überholstelle Lamerden“

Teil 2

Von der Idee bis zum Entwurf des Gleisplanes

Am Anfang einer jeden Modellbahn steht die Idee und Planungsphase. Meist sind es besondere Eindrücke von Gleisanlagen und der Umgebung, die uns in den Bann ziehen. Die Firma HRT hat ihren Sitz ganz in der Nähe des kleinen Flusses Diemel und so ist es nicht weiter verwunderlich, dass dieses Gewässer in dem neuen Exponat wiederholt dargestellt wird.

Die seit vielen Jahren existierende Überholstelle in Lamerden begeistert uns seit langem und soll das Kernstück der Anlage bilden. Damit beginnt auch die Recherche vor Ort und in diversen Medien. Aufgrund des begrenzten Längenmaßes von 360 cm ist selbst im Maßstab 1:220 eine Verkürzung der Szenerie notwendig, dies gilt auch für die Auswahl bestimmter Örtlichkeiten für die Gesamtgestaltung der Anlage. Der Fachmann spricht hier von einer notwendigen „Szenenverdichtung“.

Lesen sie weiter auf der Website zum Projekt unter:

https://www.1zu220-shop.de/Projekt2025:_:123.html

Überholstelle Lamerden



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TGV Sud-Est at a scale of 1:220 (part 1)

French Elegance in Japan

Goushi Koike experiences the presence of the Shinkansen every day in his home country. And yet, even as a primary school child, he began dreaming of the elegant TGV trains operated by SNCF. Since his wishes for a model remained unheard for a long time, he ventured to build his own using state-of-the-art technology, which he now presents to.

By Goushi Koike. In the early 1980s, when I was only six or seven years old, I fell in love with an orange, streamlined train called the TGV that was displayed in a department store window. It was a model offered by Kato on a scale of 1:160.

In Japan, there is the Shinkansen train. But the design language of the TGV is completely different from Japanese trains. The TGV consists of a few simple, flat surfaces, but also has elegance.



Our reader created his own TGV PSE train on the basis of housing moulds that were offered via a printing platform. This required many of his own designs, such as a functional running gear and other solutions.

It looks like something that is supposed to cut through the air, just like a samurai's sword. In later years, I then bought the Kato TGV in N scale. At the same time, I also appreciate European model trains in Z scale, so I had hoped to get a TGV in 1:220 scale one day.

After all, I realised that if I wanted to call a TGV in Z gauge my own, I would have to build it myself. Of course, I was still hoping that Märklin itself would become active. I believe that it would be easy for the masters in Göppingen.

But even in Germany, many interesting trains have not yet become models. And a TGV would also require investment in many new moulds. If they ever decided to offer a TGV, it would be in the distant future. So, I decided to design and build it myself.



This is what the printed blanks looked like when they arrived from Shapeways. Mould changes were still required on the power cars to turn the TGV Atlantique into its predecessor, the TGV PSE.

Prior to this project I had made a chassis to replace the Taurus that used Maxon's iron coreless motor and increased its weight by using brass. By using this technique, tools, and instruments I had built up the confidence to make a brass chassis that had the required pivot positions.

As a student, I had made an attempt at Jacob's bogies in H0 scale. That was about 25 years ago. So, I was confident that I could now build a TGV chassis in Z gauge as well.

But I had no idea or time to model its aerodynamic body. Of course it is possible with a complete scratch-building approach, but building a total of ten cars this way is not easy.

But suddenly my dream became a reality: In 2016, my friend Mr. Kagami introduced me to the 3D printing service provider Shapeways. I soon found the TGV model from Spoor Objection (Mr. Mitchell Jetten).

So, I bought six plus four car elements (two control cars and drive cars / six centre cars with Jakobs bogies) there. However, the model did not include bogies, gearboxes, bogie mechanisms, or other components. So, I was faced with the task of planning, designing, and producing these components myself.

With this report I would now like to show how I worked on the 3D-printed superstructures and how I was finally able to design and build them motorised and car chassis. Now Azar Models has announced that they will release the TGV as a product. If I had known that, I wouldn't have taken on the challenge of building it myself, so recklessly.

Structure made from 3D printing

I received the 3D printed parts from Shapeways in July 2016. They arrived with the print support structures already removed, which was nice as it saved me a lot of extra work. However, even though the bodies had already been cleaned, there is still some residue from the printing process to be removed.

Otherwise, they will never fully harden, and at the same time prevent the primer and paint from adhering well to the surface. I removed these residues with water and brushes. I then wiped the parts with isopropyl alcohol.

I thought I had done my best, but it still wasn't enough as paint came off in some places during the painting process. My advice is to clean the parts very carefully and follow the instructions in the 3D printer's manual.



The light grey primed housing reveals the print layers and shows the need for reworking described in the text.

All 3D printer manufacturers strive to minimise print lines, but currently the resolution is still not good enough for Z scale, I believe. To remove the layer lines, I had to use many layers of primer and sandpaper to smooth the surfaces.

After cleaning the base material, I first applied a thin layer of grey primer. The grey colour of the primer highlights layer lines better than the translucent material.

Then start removing lines by using fine sandpaper and files. The process must be repeated several times to smooth the surface. The primer must then cure completely before final polishing. The drying cabin is useful for this process, but if you expect a perfect finish, I recommend waiting at least a week.

Treatment for window openings must be done at the same time. Use files to remove burrs and deformations to make all openings straight and accurate. This preparation is important for fixing window parts.

After you have smoothed the surfaces, first paint with a black coat to seal everything light-proof, then overlay it again in grey and then apply a fine white primer to prepare the colouring.

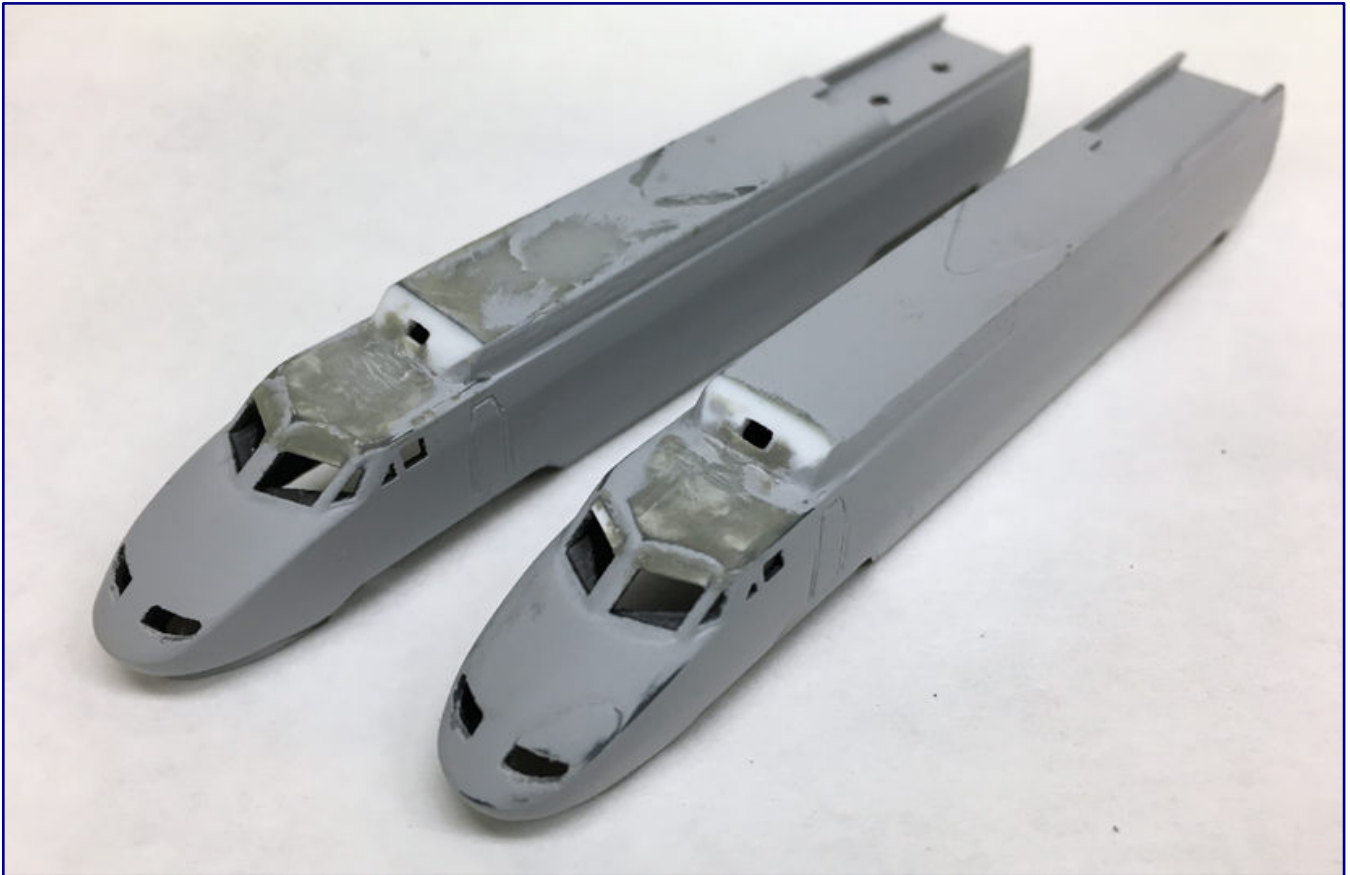


The roof of the TGV Sud-Est was flatter above the driver's cab and the upper headlight was located further back. This adjustment was made by removing the printing material and replacing it with PS parts and modelling filler. Sanding work that has already been carried out also shows that the surfaces of the pressurised housings have now become smooth.

However, a side effect of these processes is that details of the original parts are lost, especially tiny indentations for doors or grille structures. In this case, I left them out due to my limited skills and the goal of maintaining good surface qualities. If these details are more important to you, I recommend treating complex structures separately from smooth surfaces.

The original model from Spoor Objectiection was a model of the TGV Atlantique. It was really beautiful and elegant, but I wanted an old, orange TGV Sud-Est. I am aware that they have already been taken out of service and have become legendary.

I modified the roofs with plastic sheets and some filler. I cut the roof parts with an extra fine razor blade. The reason I chose to do this is because 3D printed material is so fragile that it needs to be cut without any pressure.



After several coats of primer and sanding, the two power cars are ready for painting. The next major challenge, now lies ahead.

If you have an ultrasonic cutter, I think it's even better. But leave enough clearance and finish the job with a file. By the way, I use diamond files because they have a fine grit with no direction.

With this modification, I found that the top lines of the windscreen are misaligned with the side windows. I don't know if this was the original design of the TGV Atlantique, or a mistake in the model, but I reduced the window size to align it with the side windows.

In fact, there are more differences between Atlantique and Sud-Est, for example window layouts. But I deliberately ignored this to make it easy, because I had to build a ten-part realisation.

Choice of colours and their application

The TGV Sud-Est was painted in three colours: orange, white, and grey. But within each of these colours there are many different tones and mixtures. Due to the scaling factor, they have to be harmonised in perspective and defined individually.

I therefore tested many variations of colour mixtures. I painted each of them on a small plastic plate that was previously treated with the same primer as the models so that I could realistically compare them with each other.



As there were no binding colour specifications for the prototype and no colour matching was possible, a Kato model was used as a substitute for comparison. In order to take the scaling effect into account when selecting the colour, several marked test strips were produced to determine the most suitable combination.

To achieve the most accurate mixture possible, it is useful to increase the base quantity of the mixed colours. This makes fine adjustments easier. For best results, I recommend using a precision scale when determining the individual colour proportions. Excess paint will be useful for repairs.

Unfortunately, I have never seen the real Sud-Est colour, which made it almost impossible for me to recreate the exact shade. My references were information and a few pictures from magazines and the internet.

All of these photographs were taken on celluloid between 1980 and 1990 and printed on paper. This means that exact colour reproduction cannot be guaranteed. On my first attempt, I used the paint colours of Kato's TGV model as a guide. However, when compared with photographs of the real thing, they looked too vivid on a Z scale model.

So, I chose a paler colour. Even if it's not exactly right, I believe it's not too far off from the real thing. After all, the original colour would have faded eventually under the bright sunlight of southern France.

Masking tapes of various widths are required for the Sud-Est colour scheme. Not only the lines, but also the curves of the white lines used on the cabs prove to be particularly difficult.



The interaction of the colours in question and their surface areas based on geometric shapes on the drive heads also remained to be investigated.

Cutting with a fixed width is possible manually, but it is difficult to cut clean curves symmetrically. So, I drew these curves in Illustrator and cut them out with the Silhouette Cameo cutting plotter.

To create the .ai data, I scanned the 3D-printed model and a ruler simultaneously and referenced them in Illustrator to adjust the design. I used Kato's TGV as a reference to define geometric relationships and the ratio of each line width.

The target sheet must adhere to the adhesive sheet inserted into the machine. However, some got stuck and were torn off at the edges. I had no choice but to use flat masking tape with a paper-based protective film. To protect them, I used plastic-based "Post-it" notes for each corner. Using this method, I was able to create a sufficient number of masking tapes.

continued on page 37



Masking templates for the three-dimensional structures and surfaces of the train were created with the help of a plotter and a few tricks using masking tape (photo above). One railcar has received its first coat of white paint and has now been freshly stencilled for the next step, which involves applying orange paint (photo below).

The order of paint application is white, orange, and grey. White should be applied first to ensure sufficient coverage. So, I applied white paint to the entire side walls.

Then, I applied the masking tape, which is very important to position correctly. To ensure the correct height across all cars, I used a height gauge and a surface plate for reference lines.

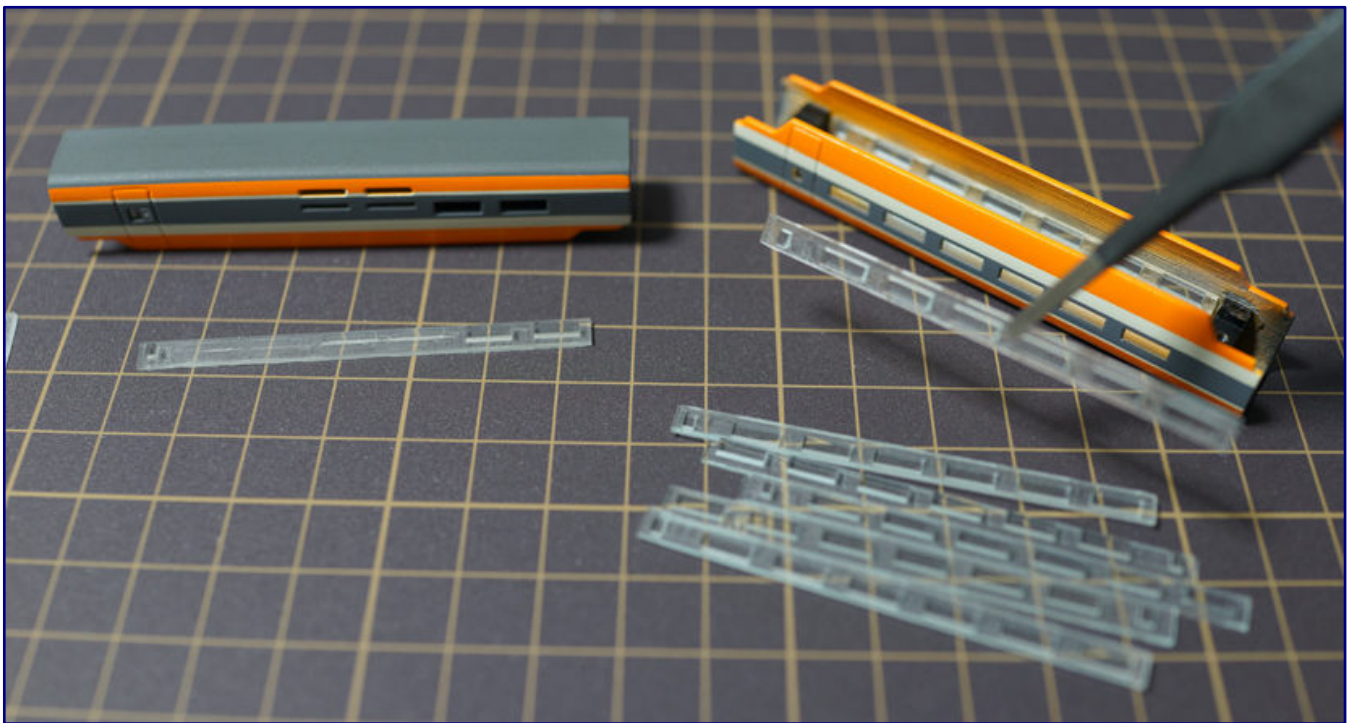
Finally, I masked the orange and white areas and applied the grey. Since the white lines are really narrow, they are very sensitive to minor errors caused by dimensional deviations. I also used masking tape to align the white lines with the orange.

Glazing the windows

My model has three different window types. I therefore used three different methods to reproduce them.

1. Side windows

I made these from a 2 mm thick PMMA sheet because completely flat windows contribute enormously to the realistic effect. But it wasn't easy. Due to the window frames that are already present on the 3D-printed models, the dimensions of the window parts and spacing are defined based on measurements.



On the CNC milling machine, transparent plastic strips were used to create precisely fitting inserts for the side windows of the cars, creating a highly professional overall appearance.

Since these are purchased parts, I did not know their original dimensions. Due to the printing processes, they also have defects, deformations, and individual differences. They must therefore be measured individually, and the parts to be manufactured later must be adapted, designed, and manufactured.

I took all the measurements and entered them into Excel to document them securely. Then, I processed them with a manual milling machine. This step would be easier to accomplish with a CNC milling machine.

2. Windscreens

I also made these from PMMA, but with a thickness of 1 mm. The process is also different. I have to adjust the parts to the outer lines of the windows, because the windshield has no space for adjacent adhesive surfaces. They must be fixed with the cut surfaces in the frame.

The panels had to be placed at an angle in order to match the cut surfaces to the housing. This meant that a milling machine could not be used for these parts. I therefore copied their shape using a transparent application sheet (from Hasegawa), then stuck it onto the PMMA panel and roughly cut out the shape.



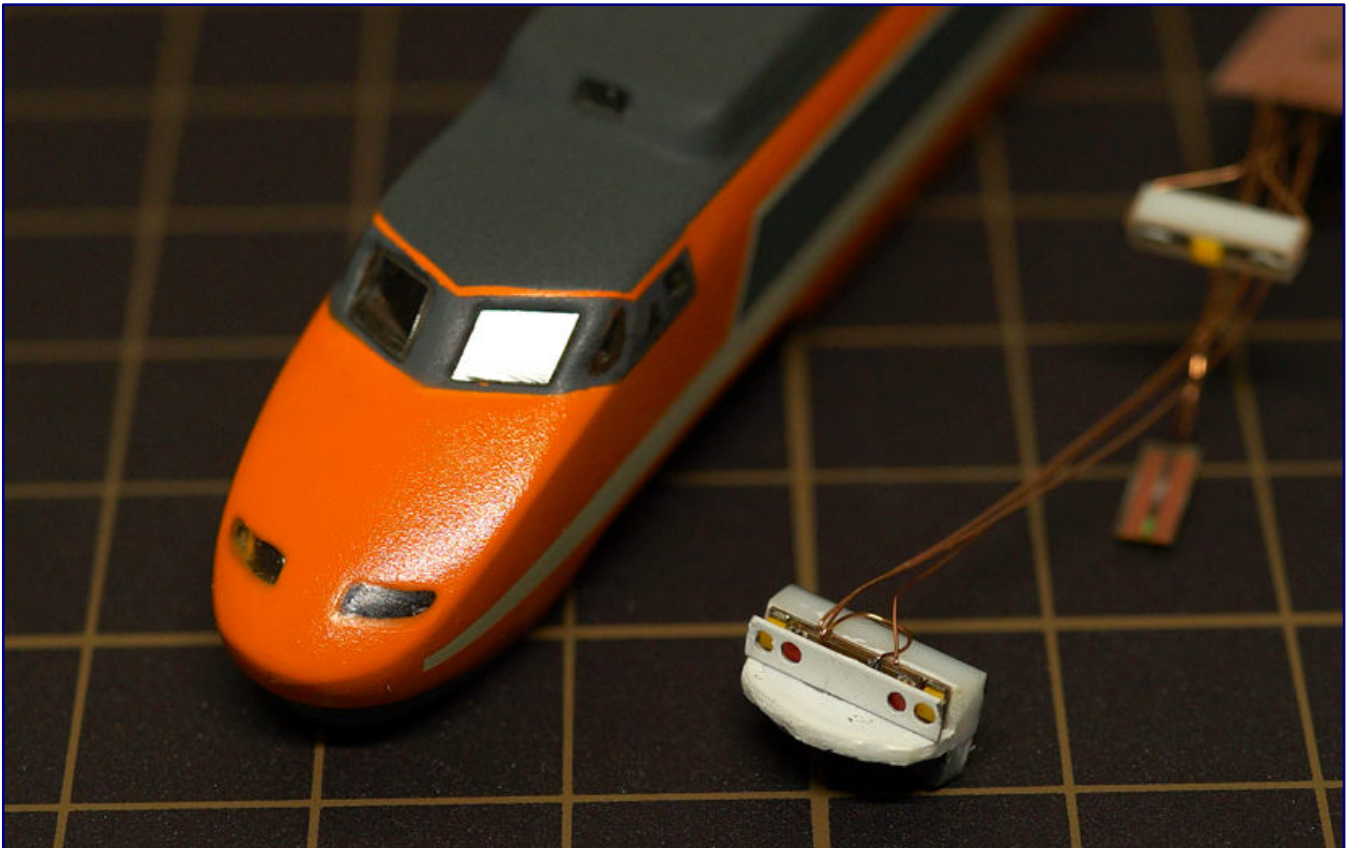
With the help of the application sheet, the trapezoidal shape of the front windows could be removed and then transferred to plastic strips with a material thickness of 1 mm and cut out.

Then I held the raw part with pliers and sanded it with sandpaper placed on a flat surface to shape it. I then placed it in a slight press fit. And glued it with extra thin plastic glue.

If I had chosen an even thinner sheet for this part, these processes would have been easier. But I couldn't find anything less than 1 mm thick. Of course, I could have chosen a plastic sheet from Tamiya, which also offers 0.2 mm sheets. But I wasn't satisfied with polystyrene in terms of flatness and light reflection.

3. Headlight covers

Challenging shapes await here as well. The lower lanterns feature three-dimensional curved contours and particularly small surfaces. I decided against using PMMA here as well and opted for UV resin, instead.



The lower headlights were particularly challenging due to their shape and slightly curved surface. Here, too, an application sheet proved useful (picture above) in ensuring the correct shape of the glass surface. After removal, the result is a perfect shape that follows the front of the vehicle (picture below). The homemade light insert can now be installed.

But when I simply inject UV resin into the opening, its surface becomes slightly concave due to surface tension. So, I needed something to keep the surface in the desired shape. Once again, I turned to the slightly self-adhesive PVC film "Application sheet" (Hasegawa). I tried a few masking tapes, but only this one allows the resin to be removed again.

I stuck the sheet onto the outer surface of the lamp to seal it. Then, I carefully injected the UV resin using a syringe and needle. Any bubbles could be sucked back up with the syringe before trying again.

Application sheet
Hasegawa's product range is distributed in Germany by Faller. Application sheets can also be found there and ordered via Faller dealers.
The product you are looking for is called 'Covering and transfer film made of elastic PVC' in German (item no. 671824).

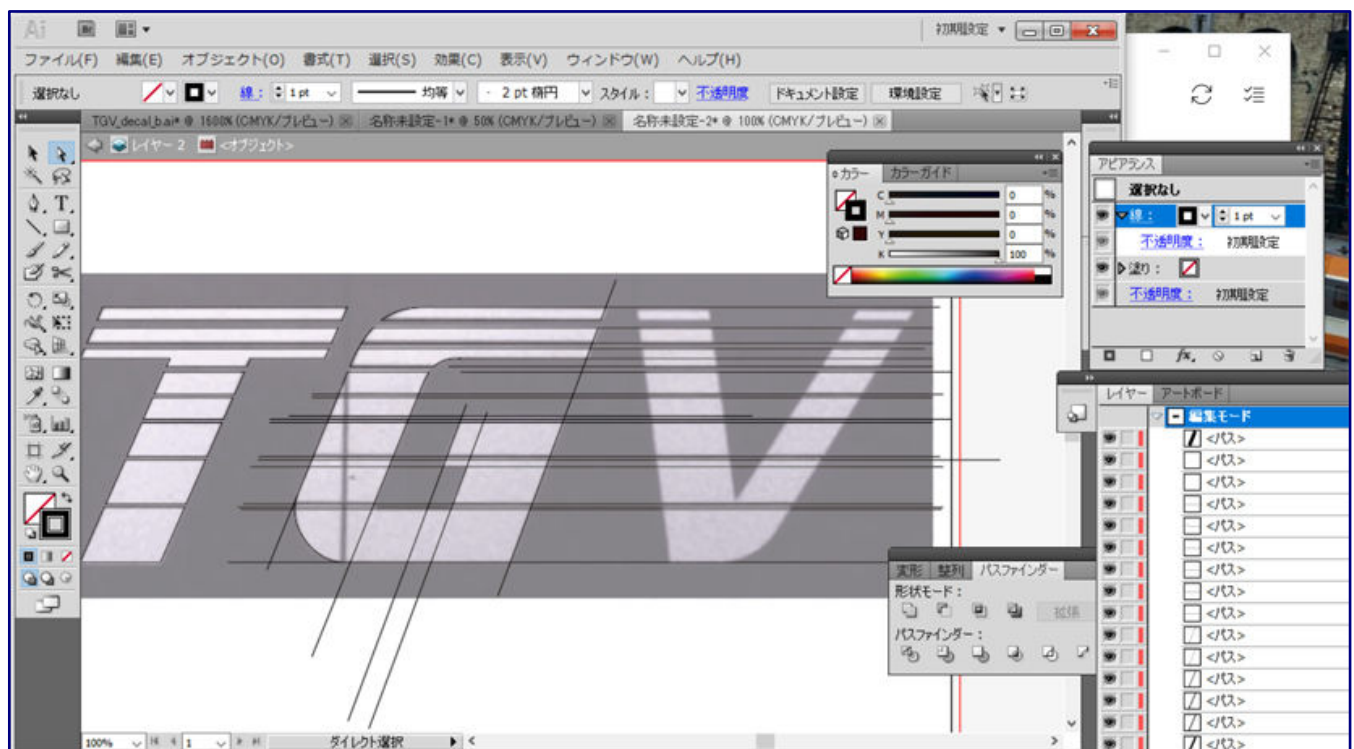
The application sheet aligns itself and keeps the resin flat, but the opposite side of the sheet becomes concave due to surface tension and forms a concave lens. If a concave surface still forms, it is carefully filled in after curing.

Curing is carried out using a UV lamp (editor's note: a comparable product for the UK is Uhu LED Power Booster). I also used this technique for other small windows on the housings.

Decals for markings

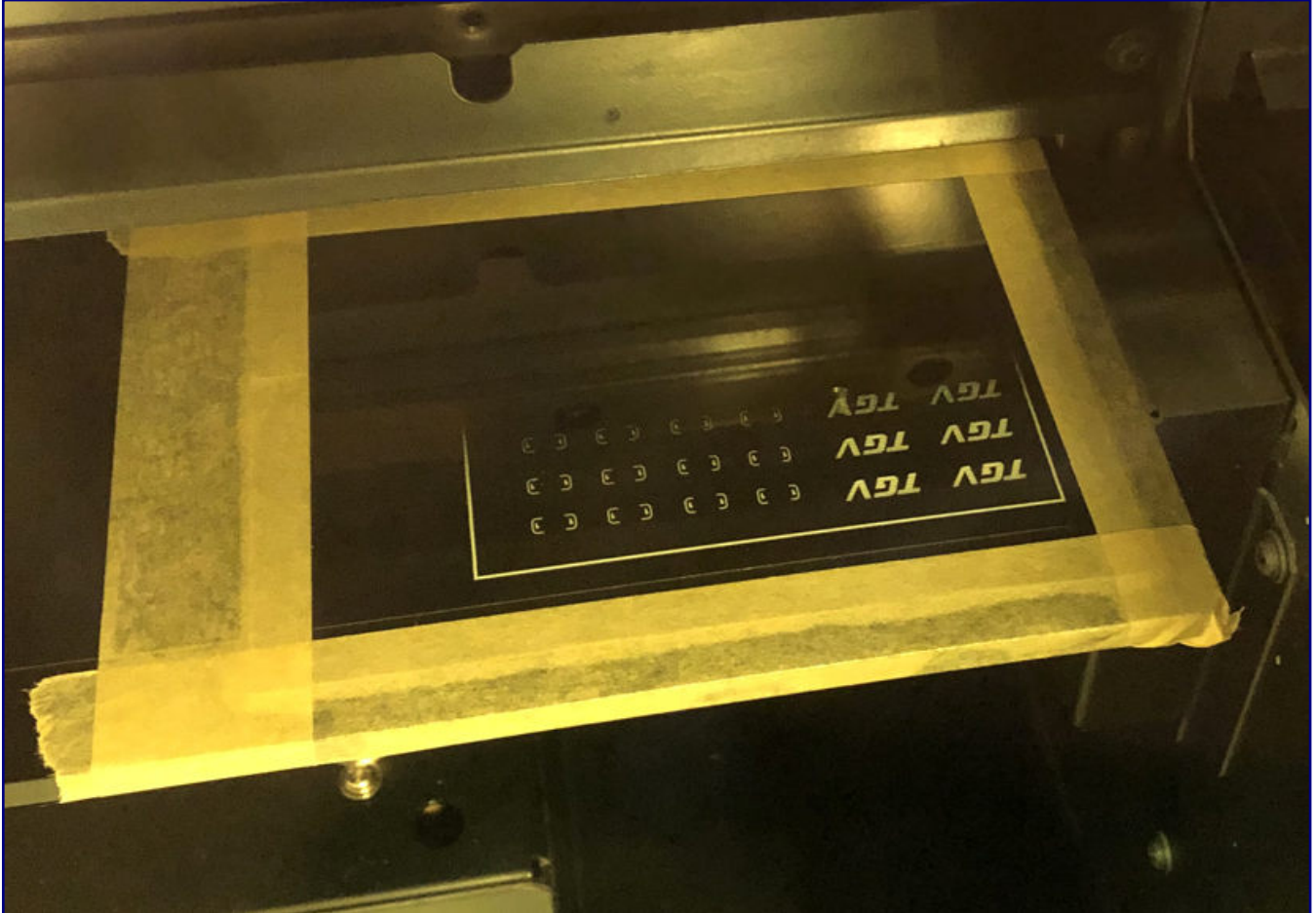
On the TGV Sud-Est, its logo and class signs on the doors are truly impressive. I didn't want to leave these out on the models. I estimated the letter height of the TGV logo at 3 mm on a scale of 1:220.

Not only was it small, but it also had many narrow slits, which made it even more difficult. This meant that I couldn't replicate it by applying paint. For these reasons, I had to make stickers. Since the logos are white, I couldn't use a regular inkjet printer. I had to use a UV printer to create these labels.



The necessary labels were first created on our own computer based on templates, and then printed out in white.

To create the data required for output, I traced an image from the internet. I then did a test print on a transparent plastic sheet so that I could compare the size on the model. The printing process on the inkjet printer makes the printed lines larger than the original data.



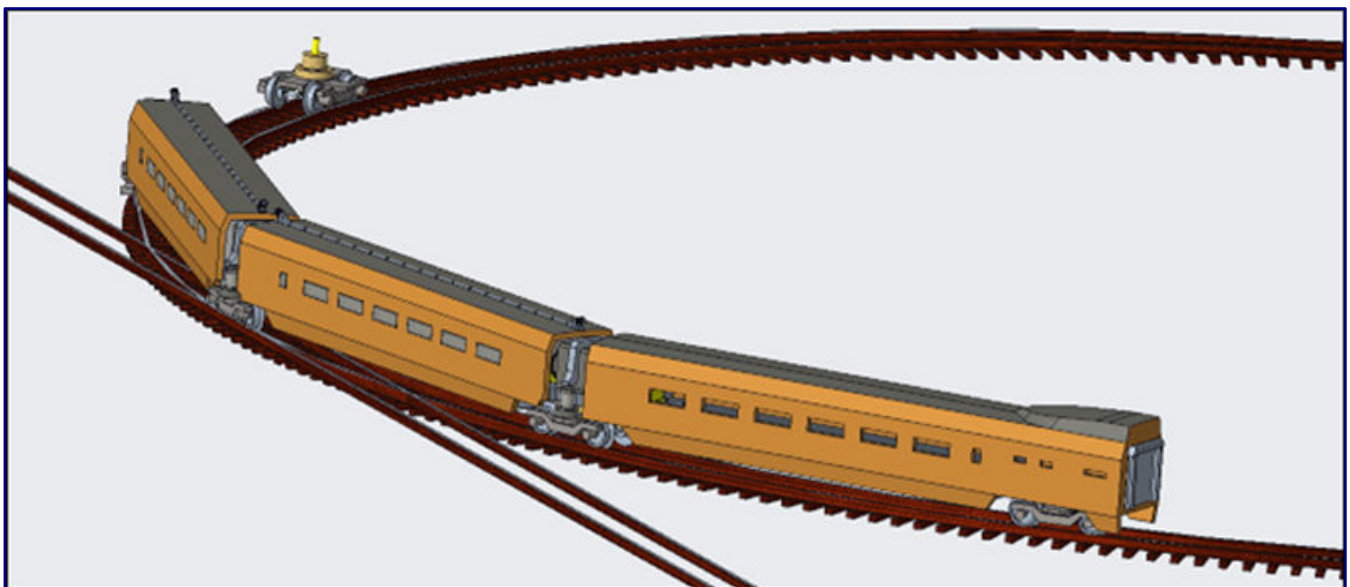
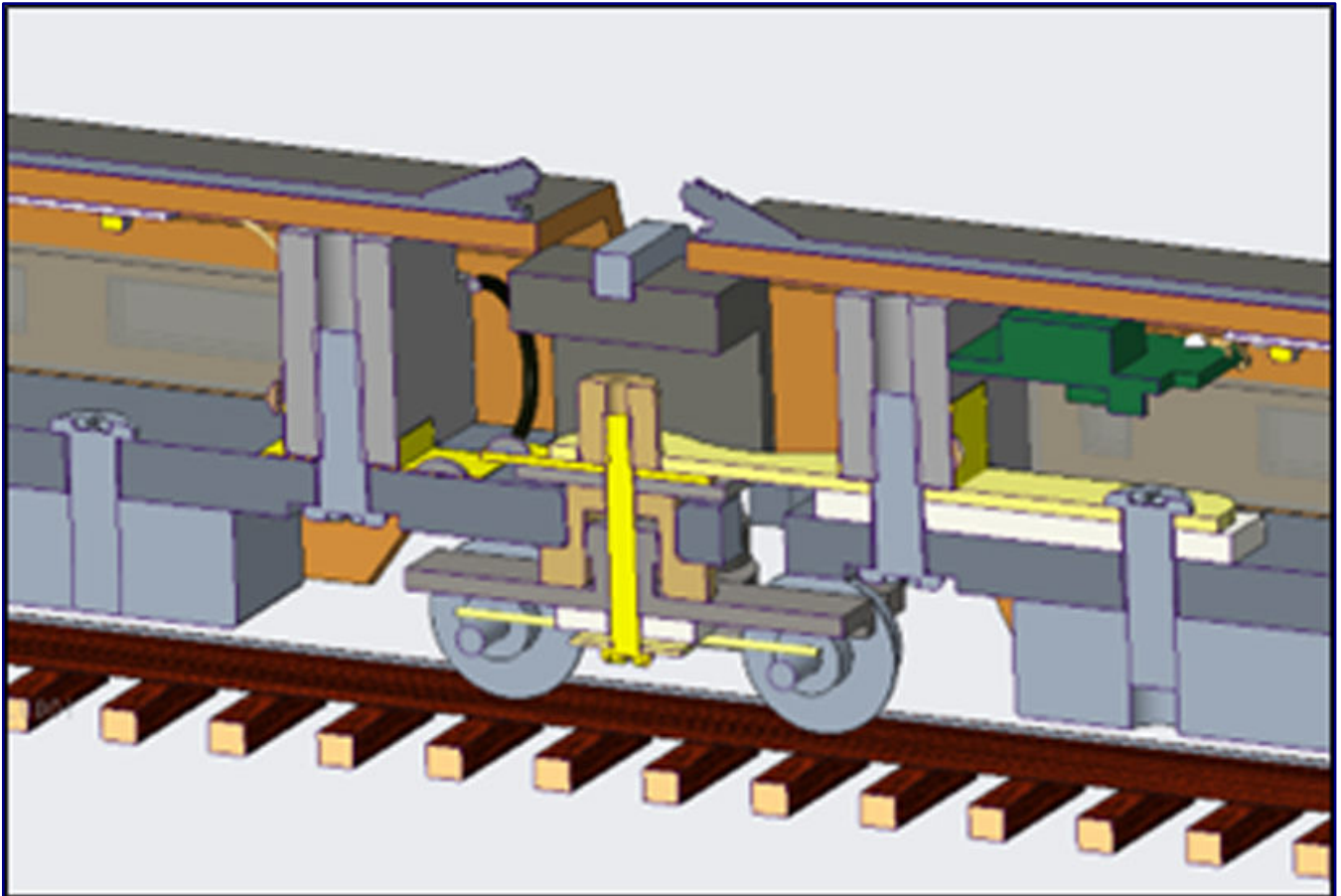
A sufficiently sharp typeface in the required white colour could only be produced using a UV printer. Here we see the lettering sheet being created.

Narrow slits are filled with ink and get lost. To avoid this problem, I measured each length and compared it with the original. Based on these findings, I reduced the data for each line by 0.03 mm. The parameters always depend on the machines used. Finally, I printed the labels on a multi-purpose decal.

Design considerations

Even though I now had finished housings for the entire train, it remained difficult to assemble it completely. The 3D-printed parts did not provide any information or ideas for the running gear. So, I had to design it completely myself.

I used 3D CAD for this project. I also had to investigate how Jacob bogies negotiate curves and had to define every dimension and mechanism. The most critical parameter is the distance between the pivot axes, as this affects the minimum navigable radii. Based on my layout, I defined a minimum of 195 mm, and the ground clearance should be at least 1.8 mm.



Cross-section of one of the planned Jacobs bogies, including the current collector (top image), and subsequent computer simulations of its curve running to determine the best possible implementation (bottom image).

Since the housings are fragile, I want to avoid them bumping into each other. So, I extended the edges of the chassis to act as buffers. However, no mathematical equations are used in the 3D CAD programme. Instead, we define the geometric relationships with a little leeway. In addition, visual checks and modifications can also be carried out there.

But it wasn't just the distances that were important, but also electrical connections, power consumption from the rails and clearance for flat cable passages. There are many 3D CAD programmes, but only a few that work with integrated 2D. I needed 2D drawings because I use manual lathes and milling machines and also had to order sheet metal parts.

For these requirements, I use the 'Creo Parametric' programme from PTC. It is a powerful 3D/2D integrated CAD programme that is particularly well suited for the analysis and manufacture of these complex structures.



We show our author's favourite scene as the final image. He writes to us: "My favourite scene: after a long journey, the train crew switches on the lights in the driver's cab and the tail lights. Now they prepare for the end of their shift, and the TGV then moves into the depot. I admire their work."

I also use Creo Parametric with a regular licence for my work, but for private use I use the academic version. It is comprehensive enough, and I want to support PTC's educational goals by promoting the personal use of 3D CAD in model railway areas.

In the next part, I will describe how the chassis and transmission were developed. It will also cover the electrical and electronic components. I hope I have piqued your curiosity. Thank you very much for reading this far.

All photos: Goushi Koike

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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.

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Nachdem die Eisenbahn erfunden war, hat sie schnell die Welt verändert. Ausgehend von England eroberte sie das europäische Festland wie auch die übrigen Kontinente. Sie ermöglichte erst die industrielle Revolution, sorgte für landesweit einheitliche Maße und Uhrzeiten und hatte auch nachhaltigen Einfluss auf das kulturelle und soziale Leben.

Auch wenn vieles davon heute fast vergessen scheint, weil es alltäglich und selbstverständlich ist, die Eisenbahn gar an Einfluss verliert, so ist sie doch etwas Besonderes geblieben. Und sie hat auch Besonderes hervorgebracht: Darum geht es in diesem Buch, das wir hier vorstellen.

Am 27. September 1825 wurde die „Locomotion No. 1“ auf der ersten öffentlichen Eisenbahn Englands gefeiert. Sie setzte eine technische Entwicklung in Gang, die bis dato unbekannt war. Zur Dampfmaschine gesellte sich die Ellok, später kamen auch Verbrennungsmotoren zum Einsatz.

Wenn ein Autor nun die Frage stellt, was von alledem legendär war und ist, dann stößt er auf eine komplexe Materie und die Antwort ist nicht einfach - auf jeden Fall bleibt sie immer subjektiv. Genau das wird im Vorwort schon klargestellt.

Ausgewählt wurden hier nämlich nicht einfach die schnellsten und stärksten Maschinen oder jene mit der größten Stückzahl, sondern auch solche, die keine publikumswirksamen Weltrekorde aufgestellt haben und vielleicht erst mal unscheinbar daherkommen. Immer aber haben sie die Eisenbahngeschichte auf besondere Art und Weise geprägt, sie haben also Spuren hinterlassen.

Kriterien für die Aufnahme in dieses Buch waren auch technische Innovationen, ein wegweisendes Erscheinungsbild oder ein großer Einfluss auf die wirtschaftliche Entwicklung. Bisweilen handelt es sich auch nur um besonders kleine Lokomotiven, die aufgrund ihrer Winzigkeit auffallen.

So umfasst dieses Buch, das pünktlich zum 200-jährigen Jubiläum der Eisenbahn als öffentliches Verkehrsmittel erschien, verschiedene Bautypen von der ersten Dampflokomotive über den ICE bis zum wasserstoffgetriebenen Triebzug.

Eine kurze Beschreibung über ein bis zwei Seiten, dennoch mit wichtigen Details, gesellt sich zu technischen Daten und Angaben zum Einsatzgebiet. Genau hier aber zeigt sich ein Schwachpunkt des Titels, der vermeidbar gewesen wäre: Fast durchweg enthalten die Datenspiegel Fehler, die der Kenner gleich bemerkt oder wegen Widerspruch zu den Angaben im Text nicht zu übersehen sind.

Mehrere dieser Datenspiegel sind im Buch auch vertauscht worden und erscheinen nicht auf der Seite des zugehörigen Fahrzeugs. So ist uns tatsächlich nur ein einziger aufgefallen, der auf jeden Fall stimmt. In der Gesamtsicht wirkt dies aber nicht so schwer, wie es zunächst klingen mag.

Das Buch wendet sich schließlich nicht an ausgewiesene Kenner und enthält keine tiefgründigen Baureihenportraits. Es handelt sich um eine kompakte Übersicht für einen breiten Leserkreis, also vorrangig Einsteiger und eine Basislektüre grundsätzlich Interessierte.

Ergänzt werden die Angaben durch sachlich dokumentierendes, manchmal auch emotionales Bildmaterial, welches das Thema Bahn nicht nur vervollständigt, sondern auch attraktiv macht. Lobenswert ist daher auch das hervorragende Preis-Leistungsverhältnis, das vielleicht auch eine Investition in neue Leserkreise ist und das Werk zugleich zum preiswerten Geschenk für geeignete Empfänger macht.

Etwas unausgewogen wirkt die Verteilung deutscher Schienenfahrzeuge im Vergleich zu denjenigen aus dem Ausland: Drei Viertel der Seiten bilden Deutschland ab, das verbleibende Viertel ist allen übrigen Staaten der Welt gewidmet – mit einem Schwerpunkt auf Europa und den USA.

So kommt es, dass wir durchaus einige Ikonen vermissen, die auch nach den genannten Kriterien in dieses Buch gehören sollten: die siegreiche „Rocket“ von Stephenson als Initialzündung für die Eisenbahn in England, die im Verlagstext selbstgenannte „Locomotion No. 1“ und Englands Rekordlokomotive „A4 Mallard“.

Die Vereinigten Staaten brachten Gasturbinenfahrzeuge hervor, die weltweit Versuche mit dieser Alternativtechnik zur Folge hatten und auch den ersten TGV antrieben. Apropos TGV, der heute in einem unserer Artikel behandelte Hochgeschwindigkeitszug wurde selbstverständlich nicht vergessen und hinreichend gewürdigt, weshalb diese Lektüre begleitend helfen kann.

Für Deutschland empfinden wir das Siemens-Erfolgsmodell Vectron als nur unzureichend gewürdigt: Die aktuelle und erfolgreich angelaufene Dual-Mode-Reihe wird behandelt, aber die vollelektrische Variante, die bereits Produktionszahlen von 2.000 Exemplaren anvisiert, nur im Einleitungssatz kurz erwähnt.

Der Vorgänger „Taurus“, der mit 357 km/h einen immer noch gültigen Weltrekord aufstellte, ist komplett ausgelassen worden. Auch die Baureihen 127 (Siemens Eurosprinter) und 128 (Adtranz 12X) wiesen den Weg von der ersten zur modernen Drehstromlokomotive und erfüllen damit das Kriterium wegweisender Technik.

So liegt in Summe kein rekordverdächtiger Titel vor uns, aber ein dennoch gutes Buch für den Einstieg in die Welt der Eisenbahn, das eine weltweite Bedeutung und auch technische Zusammenhänge durchaus aufzeigen und vermitteln kann.

Publisher's webpages:
<https://www.heel-verlag.de>

Erlebnisse mit der Bahn **Grenzerfahrungen**

Wenn einer eine Reise tut, dann kann er was erzählen... Das gilt besonders für den Universitätsabsolventen Günter Holle, der zum Abschluss seines Studiums 1970 etwas Besonderes plant: Mit der Bahn will er auf einer Rundreise entlang der Staatsgrenzen der Bundesrepublik das Land erkunden.

Günter Holle
Erlebnisse einer Bahnreise in den 70er Jahren
Mit der Deutschen Bundesbahn entlang der Grenzen Westdeutschlands

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1970 kommt Günter Holle auf eine außergewöhnliche Idee: Zum Abschluss seines Studiums will er die Freifahrten für Familienangehörige der Bundesbahnbediensteten ein letztes Mal nutzen.

So plant er eine Rundreise mit der Deutschen Bundesbahn, die ihn entlang der Staatsgrenzen der Bundesrepublik Deutschland führen soll. Aus dem amtlichen Kursbuch sucht er sich die zu befahrenden Strecken und Verbindungen heraus, die ihn auch an interessante Orte führen sollen, die aus verschiedenen Gründen sehenswert sind.

Das kann geschichtlichen, touristischen oder auch eisenbahnbezogenen Hintergrund haben und verspricht für sich schon einen spannenden Inhalt. Rufen wir es uns gut in Erinnerung: Deutschland ist in jenen Jahren noch geteilt, die Politik bemüht sich um eine neue Ostpolitik, die Entspannung bringen soll, wo die unterschiedlichen Systeme von Politik und Wirtschaft aneinanderstoßen.

Die Fahrten, die den Autor entlang der innerdeutschen Grenzen führen würden, dürfen also gewiss als ein Höhepunkt erwartet werden. Fahrzeuge der Deutschen Reichsbahn überfahren die Grenze und waren dort sowie in Hamburg zu sehen, zugleich ist das Wort „Zonenrandgebiet“ als Begründung für wirtschaftsfördernde Sondermaßnahmen noch in aller Munde.

Interessante Sehenswürdigkeiten versprechen auch Orte wie die Kaiserstadt Aachen oder die Hansestädte Lübeck und Bremen. Ziel der großen Rundfahrt ist es, als Eisenbahnfreund das Heimatland besser kennen zu lernen.

Die politischen Konstellationen erzwangen es, dass diese Reise entlang der Außengrenzen auf den Westen beschränkt blieb und Berlin (West) vollständig fehlt. Doch was gibt es auf dieser Reise alles zu erleben?

Lassen wir erst mal die Eckdaten auf uns wirken: zehn Tage Reise über 3.260 km mit insgesamt 38 Zügen aller damaligen Komfortkategorien – durchweg wohl in der 1. Klasse. Das klingt nach einigen Superlativen und vielen Eisenbahnfotos. Schließlich liegt ja offiziell ein Eisenbahnbuch vor uns.

Doch hier müssen wir etwas bremsen: Der Autor konnte sich offenbar nicht entscheiden, ob er wirklich ein Nachschlagewerk über die Schienenfahrzeuge seiner Zeit erstellt, besondere Strecken und Infrastrukturbestandteile herauspicks oder doch einen Reiseführer schreiben wollte, der Informationen zur Geschichte besuchter Orte und seiner Sehenswürdigkeiten liefert.

Dies ist nun der richtige Moment zu verraten, dass der Autor pensionierter Lehrer unter anderem für Geographie ist. So schwankte er offenbar immer zwischen seiner familiär bedingten Eisenbahnbegeisterung und einem pädagogischen Auftrag, den er nun gegenüber seinen Lesern erfüllen wollte.

Herausgekommen ist ein durchaus interessantes Werk, das allerdings irgendwie nicht Fleisch und nicht Fisch ist. Es fehlt einfach eine definierte Zielgruppe, für die er schreiben wollte und geschrieben hat sowie in der Folge ein roter Faden, der alle Kapitel zu etwas Ganzem zusammenführt.

So verfolgen wir, bunt und teilweise willkürlich ge- und vermischt, Berichte über gesichtete Fahrzeuge, erleben den Komfort der 1. Klasse in einigen Zügen, schauen dem Triebfahrzeugführer über die Schulter, um dann beispielsweise einen Aufsatz über Aachen und die Rolle der Kaiser für diese Stadt zu lesen. Auch in Bremen und anderen Orten verliert er sich in Ausführungen, die mit der Eisenbahn rein gar nichts zu tun haben.

Es gibt aber auch positive Beispiele, wenn bedeutende oder monumentale Bauwerke der Eisenbahn mit Hintergrundinformationen angereichert werden. Packend und durchaus anschaulich sind seine Reiseerlebnisse. Im Rückblick scheint es fast so, als sei alles ohne Pannen, Ausfälle und Verspätungen abgelaufen.

Das mag im Großen und Ganzen auch stimmen, kleinere Probleme vergisst der Mensch eh bald wieder und hier liegen ja mehr als satte fünfzig Jahre zwischen Erleben und Niederschrift – da kann einem die Erinnerung auch so manchen Streich spielen, wenn nicht alles haargenau dokumentiert wurde.

Wie fassen wir den Inhalt eines solchen Werks am treffendsten zusammen? Vor uns liegt kein Titel, den ein Eisenbahnhistoriker oder Baureihenliebhaber gelesen haben muss, zumal auch die Qualität einiger Bahnaufnahmen, sicher historisch bedingt, eher durchschnittlich und manchmal sogar grenzwertig ist.

Aber es ist ein durchaus lesenswertes und sehr preisgünstiges Buch mit eher unterhaltendem Charakter. Es eignet sich als Feierabendlektüre zum Erholen oder leichte Kost vor dem Schlafengehen, das vielleicht für schöne Eisenbahnträume sorgt. Und so hat es durchaus seine Berechtigung im heimischen Bücherregal.

Verlagsseiten:
<https://motorbuch-versand.de/transpress>

Our history

20 Years of Trainini

When we launched Trainini® in August 2005, nobody could have predicted our future. Many market players were not yet able to do anything with a purely digital magazine, but today such people from yesterday have become rare. 20 years later, we are firmly established in the magazine market and are, therefore, telling our story from our own perspective.

Today we are celebrating an anniversary: the magazine that is now in front of you is celebrating its 20th anniversary. Last month, with the 240th issue, we completed 20 full years, even though we are aware that the first year only comprised five issues (August to December 2005) and we are therefore already counting the 21st instalment.

It all began in August 2005, with a few detours in retrospect. The **Trainini®** brand had been invented, its corporate colours and appearance with font had been defined, but it was originally intended to be used for something completely different!

Concerns about his job had led him to draw up a business plan since the beginning of the year, talk to market players and draw up a financial plan. This was to form the basis for discussions with the bank about setting up a business.

20 Jahre
Trainini
Hobby | Leidenschaft | Kompetenz



The idea at the time was to sell small series products. Knowing full well that many inventors on our scale have a lot of creative potential and craftsmanship, but often all the less commercial flair and knowledge, **Trainini®** was to become an outsourcing company for the marketing and distribution of these products. The foundations for an electronic mail order company had long been laid.

But things turned out differently. Thanks to new media achievements, the Z gauge community had just come together electronically to form a new community and began to network successfully even beyond national borders.

Photo left:

Our first two issues had to make do without a cover page for the time being and only received one at the end of 2005. From the October 2005 issue onwards, **Trainini®** appeared directly with it, albeit only in a provisional design. An example of this is the cover of issue 1/2006, which features a model motif with a railway for the first time.

A magazine dedicated solely to the 1:220 scale also seemed to have been found: the best opportunities for a hitherto unknown form of cooperation, a broad exchange of information, coordinated action and a good overview of the market. But then it came to a scary end, but with a loud bang.

Suddenly, there was a need for a new trade magazine for the smallest scale, which reported on what was happening in the market, compiled, and edited information, but also wanted to test and present various offers in a neutral and honest way.

That was truly the birth of **Trainini®**: the decision was made spontaneously to fill the gap that had arisen and to use the already secured domain trainini.de for a new magazine. The first issue was created in no time at all from two completed articles for the suddenly cancelled offer.

The aim was to fill the painful gap as quickly as possible and send a signal to the market: "It's going on, but differently and in a new place!" Helpers were quickly found to make this project a success together with the publisher. Joachim Ritter formed the first editorial team together with Holger Späing. Bernd Knauf initially worked in the background as a proofreader, but was soon also recruited as an editor.

Ten years followed, during which all three of them continued to develop the magazine, constantly learning new things, asking around among readers and gradually professionalising the trade magazine. For the trio, producing the magazine on a voluntary basis and offering it free of charge did not mean compromising on quality.

The work in the background was never any different from that of commercial journals. Journalistic quality and adherence to a code of honour were the cornerstones of a concept from the outset that was to lift us to the top of the relevant trade journals.

As elsewhere, vintages and contributions are planned, matching topics are brought together and current events are integrated. The modelling required for this must also be taken into account on this timeline.



We introduced the final and still only slightly modified appearance in January 2007 (here issue 3/20207). It was developed in close co-operation with readers from the very beginning. Their wishes for large-format images, emphasised photo-rich reports and a renunciation of texts that protrude into them still determine our maxim today.



We were and are also welcome guests or participants at manufacturers, clubs, and official events. In 2013, for example, we also took part in the ceremony to mark “50 years of the Fehmarnsund Bridge”, here the opening ceremony on 30 April 1963 with V 200 113 recreated in the model.

With the success and confirmed claim, the technical equipment used also grew, as did, of course, the wealth of experience. After a few years, we could proudly claim to have penetrated almost 100% of the Z gauge market segment in Germany and to have long since gained a foothold in foreign markets as well.

Calls to the editorial team, discussions at trade fairs and letters from readers also confirmed that our reach extends far beyond the Z nominal scale. We were increasingly confronted with requests to offer **Trainini®** in an English-language version, a request that we were unable to fulfil for many years due to a lack of staff.

And so, the years went by. We had already been invited by various manufacturers to visit their factories and production processes and to express or discuss product ideas. We were also able to clear up many a misunderstanding along the way. We grew more and more into a partner in the market that connects and sometimes also mediates.

A visible highlight for third parties on this long journey was certainly our desired model survey, which was actually followed by a number of small series models and which could also have shown the way for many a large series offer. This can be seen from a comparison of the results and offers in the following years.

And yet nothing to celebrate

But then, after ten years, there was a serious setback that also spoilt our celebratory mood: our editorial colleague Bernd Knauf, the cheerful one among us, fell seriously ill and his future was suddenly uncertain. When his wife told us that it could “go in any direction,” we finally realised the seriousness of the situation.

Bernd finally died in December 2015, tearing a hole in our midst and in our hearts. For the time being, we had to carry on as a duo, because the remaining duo had to reorganise themselves, get back on their feet and get back on their feet: We never thought about quitting, but we couldn't, and didn't want to simply replace our friend.



The editorial team worked together well and amicably for around ten years in its first composition (from left to right: Bernd Knauf, Holger Späing, and Joachim Ritter) before Bernd's early death tore a hole in this community. This photo of the Advent meeting in Zell (Mosel) was taken on 29 November 2009.

We had to find out what had made him tick and what was happening in the unconscious in order to define how **Trainini®** could develop without him. Only when this was clear to us would the editorial team be expanded again.

And so, we ended up producing a full year's work in pairs. During this time, we drew up a profile of what we were missing and published it in a job advert. It was Dirk Kuhlmann who was to complement our professional experience and skills as a model maker and photographer, and at the same time was an excellent fit for us in terms of character.

From 2016 onwards, we continued with new ambitions. In fact, we were and are able to give the market new impetus, which then put us in a dilemma. The requests from the English-speaking world were back and could no longer be ignored.

It was a stroke of luck that Martin Stercken, a supporter who wanted to turn his native language into another key to success, suddenly offered his services as a translator. A trial edition, which we had sent to key people, received positive feedback.



The establishment of a new group of translators was a joyful event, enabling us to publish a monthly English-language edition. Two of these four people, Alexander Hock (left) and Christoph Maier (right), are pictured here in Brussels in August 2023.

We wanted to continue on this path together, but as everyone needs a deputy from time to time, we still needed one or two more supporters. And once again, a job advertisement helped us find these people: Christoph Maier and Alexander Hock.

At the beginning of 2018, we were finally able to take the plunge and the International Edition was born. With the allocation of another ISSN by the German National Library, we got to work. A new and, above all, contemporary website was also on the agenda, for which Stephan Bauer took responsibility.

With a portal page that highlights the current issue and displays important news at a glance, it should in future be an important source of information that is used more than just once a month. At the same time, the list of our own page recommendations grew considerably and the new website also offers an integrated, albeit temporary, archive.

Speaking of archives: Our magazine had already been recognised years earlier as a German literary cultural heritage, which meant that we were obliged to submit it to the German National Library in Frankfurt (Main) / Leipzig. This means that we have to upload every electronic edition to their archive (due to the lack of a print run that can be handed over). There it is permanently stored and preserved for posterity, but may also be accessed by anyone or viewed in the reading rooms.

It should also be made clear at this point that with the steady increase in importance and recognised quality over the years, the demands on our work have also continued to rise. With the redesigned pages, we were also at another crossroads.

At the end of the first year, 2005, there was a **Trainini Annual CD** for several years up to and including 2010, which was distributed in return for reimbursement of our costs. It contained the archive of the respective completed year and a 20-minute film with reviews of special highlights.

From 2011 onwards, it no longer seemed up to date due to the limited storage space of the data carrier, as this also limited the film resolution enormously. At the same time, throughput rates in the telecommunications network increased and offered new options.

Trainini Fotokalender 2010

Praxismagazin für Spurweite Z



In contrast to the annual CD, which was later discontinued, the **Trainini Photo Calendar** for self-printing has survived to this day and continues to enjoy great popularity among our readers.

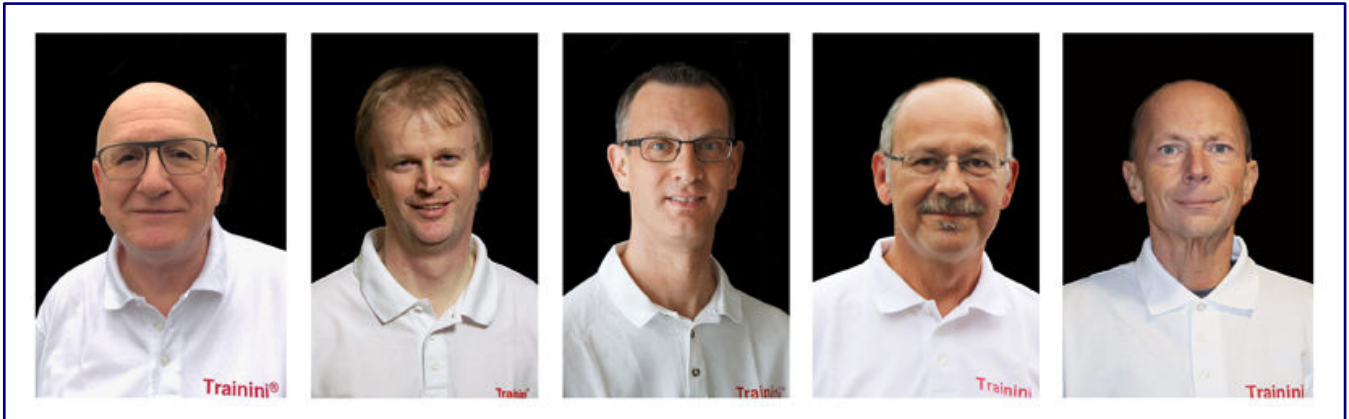
We made our film contributions available on our own website on a case-by-case basis, but new episodes only ever appeared very sporadically. Again, time became a limiting factor, which also prevented us from using YouTube as a widespread platform for our **Trainini TV** channel for a long time.

The editorial team is growing

When new paths opened up, the project was tackled and was soon very well staffed. Two new editors, who joined the editorial team at short intervals, were the guarantee for success.

Harald Fried offered to join the team as a fresh retiree and relieved his colleagues mainly by editing, but also by making individual contributions. Ralf Junius is very familiar with creating and editing film material and also maintains his own channel.

The irony of fate is that he had also been warmly recommended to us by readers when we had long since decided to approach him specifically and get him interested in this task. Of course, this reinforced our view and we were delighted when Ralf gladly accepted after a short period of consideration.



The editorial team has been working in this constellation for several years now, having been expanded to a total of five people (from left to right): Harald Fried, Joachim Ritter, Holger Späing, Dirk Kuhlmann and Ralf Junius, who also does a large part of the work for our **Trainini TV** channel.



With this team, we believe we are well positioned for the future. And as everything fits together on a personal level, we hope to continue our work together for many years to come and with the same success. Discussions at trade fairs and exhibitions confirm our work again and again and motivate us time and time again.

However, Oleksiy Mark, known as Alex, is still missing from the list. He came to Germany at the outbreak of the war in Ukraine and found his feet here thanks to an incredible donation and aid campaign. He has also been working for us as a volunteer translator since spring 2022.

Together with him, we have already been able to celebrate the 50th anniversary of Z gauge. He always contributes his good knowledge of the Märklin and foreign programmes as well as his digital skills. He is also always the first choice as a photographer.

Photo left:

A look into the future: themed special issues have been planned for a long time, and two have even been in preparation since 2023. ISSNs have also already been assigned for the German and English editions.

In the years since 2022, face-to-face meetings have become particularly important. Visits or meetings often take place during holiday trips. And although all ten **Trainini**® participants have never met at the same time, almost all of them now know each other personally.



A bow to a magnificent installation: Holger Späing (left) taking perspective photographs of the "Owl Gorge" installation by Raffaele Picollo (centre) for a magazine report.

This is by no means a matter of course for a magazine that has been produced in a purely digitally organised way since it was first published, but it is nevertheless essential from a human point of view. Former telephone conferences have long since been replaced by video conferences, which also convey a picture of the other person, but this is simply no substitute for direct contact.

This always becomes particularly clear during the Advent season: as is customary in many companies, we would also like to have a joint Christmas party as the highlight and finale of the year. Unfortunately, this cannot be organised in the form of an in-person party, as we are spread across nine cities, three countries and two continents.

So, we celebrate together virtually as soon as a date has been set. Everyone provides their own feast and a good wine of their choice and we see each other on the screen to chat or exchange ideas and celebrate in a contemplative way. Everyone contributes to this gathering as they wish. This is how we continue to grow together year after year.

We have also been able to show more presence at exhibitions in recent years. In addition to Intermodellbau 2025, where we presented ourselves extensively on a joint stand with Birgit Foken-Brock from Trafofuchs, there were mostly club exhibitions.

We are particularly keen to offer something for young model railway enthusiasts. For example, there is a craft table for children, while Ralf Junius regularly brings along a small ready-made layout with figures from children's series, on which the young guests can drive the train themselves.



We use the H0 scale to promote young talent, but this has always been very important to us: Kristin Späing (in the white polo shirt on the right) is mainly responsible for our tinkering table at exhibitions. In the background, Ralf Junius (left) is in charge of part of the magazine presentation.

Our exhibition appearances have now come full circle: of course, there should also be a celebration for and with our readers to mark the anniversary. What could be more appropriate than the **Trainini Anniversary exhibition 2025?**

On 4 and 5 October, it will take a look back at the past twenty years, focus on the present and also provide inspiration for the future. The focus will deliberately not only be on Z gauge. We will be providing comprehensive information on a separate page on our website.

The upcoming anniversary episode on our **Trainini TV** channel may also provide the aforementioned impetus for something new: We have found a great excursion tip that should provide many stimuli for model realisations. However, this would require a few puzzles, construction skills and possibly also supporting products from the small series environment.



Drone shots are becoming increasingly important in order to show our readers the world from the same perspective as they usually see their model railway. Here we see the residential building of the Sprachhof, in whose hallway some of the exhibits from our **Trainini Anniversary Exhibition 2025** will be on display on 4 - 5 October 2025.

But even in the twenty years that lie behind us today, we have discovered and experienced many things that were previously considered unthinkable. Who knows today where the next two decades will take us? The next time we take a look at history, we will perhaps address this topic.

Trainini Jubiläumsausstellung 2025:
<https://www.trainini.de/ausstellung>

All episodes of Trainini TV:
<https://www.youtube.com/TraininiTV>

Trainini Jubiläumsausstellung 2025

Sprache verbindet.
Modellbahn verbindet.
Menschen verbinden!



Samstag, 4. Oktober von 10:00 - 18:00 Uhr
Sonntag, 5. Oktober von 10:00 - 17:00 Uhr

Modellbahn - Technik - Kultur

Schauen, Staunen und Mitmachen für alle Generationen
inklusive Bastelangebot für Kinder

Freier
Eintritt!

Sprachhof, Hohes Feld 6
AWO-Familienzentrum, Wasserkurler Str. 37
in Wasserkurl (Kamen-Methler)

Historische Fahrzeuge, Mitmachaktionen, ausgezeichnete Modellbahnanlagen
sowie ausgewählte Modelle plus Fachvortrag „Verstehen Sie Bahnhof?“

mehr unter <https://www.trainini.de/ausstellung> oder QR-Code einlesen



Verein
Deutsche
Sprache 
Das weltweite Netz
der deutschen Sprache



Unterbezirk
Ruhr-Lippe-Ems

20 Jahre
Trainini
Hobby | Leidenschaft | Kompetenz

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.

To the Steigen report from **Trainini®** 7/2025:

Many thanks for the nice article on the Geislinger Steige. I was a fan of abstract mini club facilities in the eighties and nineties (and still like them today, with plexiglass and landscapes made of cork or white panels).

But Bernhard Stein's layout suddenly convinced me that a completely different kind of realism is now possible in Z, which is difficult even with Miniaturwunderland or Porsche (it would need over 70 metres of layout length in H0): You can recreate entire towns and spacious landscapes in a way that is simply not possible in large scale, unless perhaps you have a budget of millions.

Martin Grübele, Champaign (Illinois / USA)

Märklin delivery at the turn of the month:

Shortly after the publication of the last issue, the Märklin Magazine Annual Car 2025 (item no. 80835) arrived complete at the dealers. The prototype in this case is a Pwgs 041 goods train baggage car painted and lettered in blue for the Märklin magazine. The fictitious car is used by the DB and has lettering appropriate for Era IV.



The Märklin 2025 magazine car (item no. 80835) was delivered during the reporting period. Photo: 1zu220-Shop | Jörg Erkel

News from Uhlenbrock:

The original plan was to present the Intellibox 3 digital control centre at our **Trainini Anniversary Exhibition 2025** as a current innovation and to enable our visitors to try it out for themselves and familiarise themselves with it – see interview with Rüdiger Uhlenbrock at Intermodellbau 2025 (**Trainini TV** episode 39).

Unfortunately, we have now learnt that this is unlikely to happen. When asked, the manufacturer referred to the delayed delivery of important components, which is why it may well be another three months before series devices are ready.



While the Intellibox 3 is delayed, the Power 40 LN amplifier “booster” (art. no. 63 260), whose output current can also be adapted to the requirements of the Z gauge, was launched on the market.

However, the Power 40 LN booster (item no. 63 260), which comes with a powerful switching power supply and Loconet cable ex-works, has now been delivered. This is a pure Loconet booster with galvanic isolation.

RS signals and LocoNet information are separated, so there is no risk of a short circuit. The booster also features an automatic reverse loop that can supply up to seven sections via a reverse loop relay (61 080) to be connected.

The device is compatible with command stations that output the RS signal on the Loconet socket (Loconet B). As the output voltage can be set on the switching power supply, it is also suitable for Z gauge. The supported data formats are DCC, Motorola®, mfx®, Selectrix® and FMZ, use as a DCC brake generator is possible by switching over. The maximum output current is 4 A, limitable to 2 A.

Artitec delivers in quick succession:

The drinking hall (item no. 722.0023), whose corresponding figure set arrived a few months ago (**Trainini®** reported), is now also available in stores. This building is a resin-cast kit that is completed with wet-slide moulds and etched parts.



The drinking hall (item no. 722.0023) is supplied as a resin kit that also contains window film, sliding pictures and etched parts to create the finest possible overall appearance (see photo on the next page) once it has been assembled.



The three figures from the "Coal Merchant" set (522.0023) are characterised by their lifelike postures and contemporary clothing.

In addition to the assembly steps, the enclosed instructions also contain recommendations for painting the individual parts.

However, you should have some experience with kits, as this is a very small building with a very fine finish, which is unlikely to be suitable as an introductory exercise.

The three-part figure set "Coal Handler" (522.0023) was also delivered, which in its equally fine design goes well with an earlier small-series kit for a coal scale, but also perfectly enlivens the exclusive



Atmospheric scenes can be created with the drinking hall (item no. 722.0023), which were definitely typical of the Ruhr region. This delivery therefore also fits in well with the “Black Gold” novelty focus, which is also served by other manufacturers. Photo: Artitec.

Archistories kits from the spring 2025 novelties for the 1zu220 shop.

Another kit followed in mid-August with the chip shop (722.0022) as well as three figure sets for Z gauge with the farmer's wife with chickens (522.0010), two railway workers with a fire barrel (522.016) and three forklift drivers (522.0015). We cannot show any photos of these yet as we did not have these new items at the time of going to press.

Autumn novelties 2025 at Nothaft:

The lettering sets from Modellbahndecals Andreas Nothaft (<https://www.modellbahndecals.de>) are normally declared for N to 1 gauges. However, they are also produced for Z scale on request. For this reason, we are reporting all new autumn products notified to us in full, especially as our own designs can also benefit from them in some cases.

The “DB” was thus added to the range as a drawn variant for the side walls of goods wagons in Era III (item no. 3652), as was the PKP eagle for the same time frame (3653), which was kept somewhat simpler than the regular signet.

Under item numbers 3931 and 3932, there are two variants of the signs from DB-Gebrauchtzug for Era VI passenger coaches (db-gebrauchtzug.de). The locomotive number 146 236-5 with the Triberg coat of arms and advertising lettering “Schwarzwaldbahn-Erlebnispfad” (6014), also for Era VI, is also moving into the programme.

The logo of the Royal Prussian Railway Administration in the 1915 version (8185) and the double coat of arms of the Royal Prussian and Grand Ducal Hessian State Railways (K.P. u. G.H. St. E; 8186) for Era I are still missing to complete this list.

August news and summer film at AZL:

The EMD F3A of the Union Pacific are equipped with large snow plough blades, which are available together with a matching F3B (item no. 62911-3) or alone (62911-4). The EMD FP7, equipped with boilers in the prototype, comes from the same type family and is used for the Alaska (65301-1 / -2).

The new locomotives are complemented by the EMD SD60 from CSX (65024-1 / -2), the EMD SD40-2W from Canadian National (64226-1 / -2) and the ALCO RS3 from Western Maryland (63336-1 / -2), each with railway-specific details.



The Union Pacific EMD F3A carries a snow plough blade and appears together with a matching F3B (item no. 62911-3; photo above). Two of the freight carriages also delivered bear additional inscriptions with safety warnings (92002-7; photo below). Photos: AZL | Ztrack

Goods train escort wagons with side lookouts also arrive for the UP already mentioned above. Of the three versions, the two with the highest item numbers have additional markings with safety warnings (92002-5 to -7). The 4180 pressurised air unloading wagons, which are offered in two sets of four (906006-1 / -2) and one double pack (916036-1), also belong to this railway company.

Modernised AAR 40-foot coaches of covered construction from 1937 have SOO colours and lettering. They can be purchased individually (905409-1) or in pairs (915409-1). They are joined by the modernised 31,000-gallon Trinity tank cars with PPRX lettering for Conoco Phillips Co. A single car (905509-1) and a double pack (915509-1) are also available.).

Individual containers are available in 48-foot prototype length in white colour with Genstar lettering (95001A) and a 53-foot version for Canadian Tire (95104A) in the current product range.

A summer interview with AZL (<https://www.youtube.com/channel/UCj-Ny51yEBbkh3gSTw-INNA>) was also published on the Ztrack channel, in which a 46-minute preview of the manufacturer's new product range is given. This is also particularly interesting with regard to the second brand SZL, which is to be revived and for which an announcement has been made since April 2022 that has not yet been honoured.

MKB models for Modellbahn Union:

After the couple Angela Meduri and Kai Brenneis had already announced a slow withdrawal for reasons of age, the MKB-Modelle brand became quiet. As a result, we have not been able to present any new products for Z gauge for a long time. "It has always been a matter close to our hearts that our products remain on the market", the press release quotes the two.

Now their programme has a future at Modellbahn Union (<https://www.modellbahnunion.com>), which is taking over the family-run brand's entire range of over 500 models in a wide variety of gauges and expanding its production at the Issum site for this purpose.

New cutting systems have already been installed and additional employees have been hired and are now being trained.

Product packaging is to be optimised. It is therefore a milestone for Modellbahn Union, as the family-run company also announced.

"This acquisition is a huge step forward for us", says owner Daniel Mrugalski. "We can now realise a large number of high-quality kits in one go and are looking forward to integrating them for the 21st anniversary of DM-Toys – a great addition to our constantly growing range."



Bild: Modellbahn Union

Kai Brenneis is now stepping back professionally, but will realise new ideas and products together and for Modellbahn Union. His creativity will be retained and further new products will be added to the range.

Many limited-edition models that were previously only produced in small batches are also being reissued. Products that were recently sold out are gradually returning to the range. The numerous foreign buildings and many interesting industrial buildings, which will be exclusively available from the new owner, represent a major addition to the range.



NoBa-Modelle also offers the Mercedes-Benz O 6600 postbus (item no. 9034) in an illuminated version. Photo: NoBa-Modelle

Addendum from NoBa-Modelle:

Shortly after the publication of the last issue, Noba-Modelle (<https://www-noba-modelle.de>) informed us of another illuminated model. It is the historic Postbus Mercedes-Benz O 6600 (item no. 9034), which still belonged to the long-hood era.

Micro-Trains is now taking a stand:

After there were rumours about the Z-gauge programme and we have already read reports from dealers about its discontinuation, Micro-Trains has now taken a stand on its Facebook page and published the following update on its track range, which we have translated from English:

"Micro-Trains has recently received a number of enquiries about our range of Z scale model trains, including our many different wagon series, our popular range of bogies and Magne-Matic couplers and Micro-Track.

As a manufacturer of Z gauge rolling stock, bogies, and couplings, we can flexibly adapt production to market demand so that we can continue to offer Z gauge model railways and accessories.

Recently there has been speculation about our Z gauge micro-track rails and whether we will continue to offer them as they have been out of stock for some time. This is one of our few products that is produced by a foreign manufacturer.

Due to a combination of increased costs relative to market demand, we continue to evaluate solutions to these particular challenges. Thank you for your patience and understanding – Micro-Trains Line Co."

DM-Toys serves "black gold":

To mark the 21st anniversary of the N-gauge dealer DM-Toys (<https://www.dm-toys.de>), the company has presented a new product that can certainly also be used as an industrial building in Z-gauge without any problems. The theme of mining is covered, which fits in perfectly with this year's focus on new products "Black Gold" and can also be used as a colliery for coal extraction.

The novelty will be realised by the own brand Modellbahn Union, presumably in close cooperation with Kai Brenneis, former co-owner of MKB-Modelle. We provide the following information about the prototype: The "Bernard Koenen" mine was a copper ore mine in the Mansfeld mining district of the GDR, which produced from 1958 to 1990 and was named after an SED politician.

Its mining output was around 14 million tonnes of ore with 315,000 tonnes of copper and 1,600 tonnes of silver. 4,700 people were once employed there. Today, this mine is a monument to East German mining history.



The kits described for the Bernard Koenen mine are effectively assembled on the factory diorama. The two extension sets for the pit bank from the headframe to the track loading area are also installed here. Photo: DM-Toys

In the model, the “Bernard Koenen mine” was a large project that was divided into various kits and accessory sets: Bernard Koenen BKS shaft with shortened pit bank (Art. No. MU_N-i00083), machine house (-084), pit bank extension (-085), pit bank extension “siding” (-086), machine hall (-087), workshop (-088), administration (-089), motorisation set (-154), and two outbuildings “plaster” (-155) and “brick” (-156).

The first 2026 calendars are announced:

As summer draws to a close, the 2026 calendars of the two specialist railway publishers offering such calendars are now gradually appearing. VBG|Geramond will continue with the photo calendar with Brandl motifs in H0 gauge, while the traditional Miba calendar will not be reissued this time either.

EK Medien GmbH (EK-Verlag) once again has various themed calendars on model series, types of traction and regions in its range, as well as the 2026 model railway calendar for all gauges.

There are also two new calendar formats this year: a “small” stand-up calendar that will find a place on any desk and the premium calendar in maxi format. Thanks to its high-gloss finish, the publisher is praising it as a real eye-catcher.

Bulk goods wagon with WDW Full Throttle:

Open 40-foot wagons with three discharge hoppers and external box ribs form the basis of the August innovation. The Western Maryland models were approved for 70 tonnes and are now available from WDW Full Throttle (<http://www.wdwfullthrottle.com>) as a double pack (item no. FT-5011).



With the Western Maryland, WDW Full Throttle notices a railway company that no longer exists today, where the transport of coal and open wagons (item no. FT-5011) formed the centre of operations. Photo: WDW Full Throttle

The Western Maryland (WM) had very little passenger traffic. It lived mainly from the transport of coal, timber, and other freight. In 1964, the Chesapeake & Ohio Railway (C&O) and the Baltimore & Ohio Railroad (B&O) jointly applied for control of the WM. It became part of the Chessie system, which eventually became part of CSX Transportation in 1989.

New generation of trolleys at Azar Models:

The young French manufacturer Azar Models has delivered a new generation of freight wagons in six variants, which will soon also be available in Germany. These are the four-axle, covered SNCF freight wagons, which were already on display as the first samples at Altenbeken 2024.



The four-axle freight wagons of covered design appear in two design variants, here for comparison the SNCF variant in the earlier standard design (item no. W04-ST; left) and the horse transport wagon equipped with twice as many UIC ventilation sliders (W04-CH; right).

The former SNCF standard wagon (item no. W04-ST), the variants for Sernam in brown (W04-SN) and grey (W04-SNG) have now been delivered, as well as in green SNCF FRET livery (W04-FR).

The livestock (W04-VA) and horse-drawn carriages (W04-CH), both of which are painted yellow but have a pictogram to indicate their respective function, are design variants due to the different number of ventilation flaps.



The early Sernam version (W04-SN; photo above) makes a particularly prototypical impression, while the cattle transport wagon with the cattle head symbol (W04-VA; photo below) forms an unmistakable splash of colour in Europe's freight traffic.



The two historically most recent versions for Sernam in grey (W04-SNG; photo above) and the colour variant for the SNCF freight division FRET (W04-FR; photo below) will certainly not be overlooked.

We will be presenting these new freight wagons, which can also be used internationally, in detail in a separate article at a later date and will also be demonstrating them to you in person at the **Trainini Anniversary Exhibition 2025**.

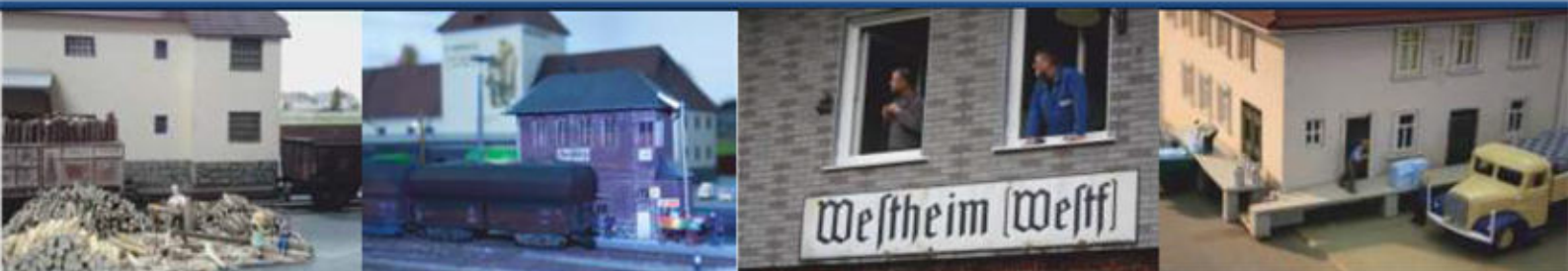
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