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By Sheperd Paine, Edited by Aaron Skinner

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The legacy of Shep Paine



Lane Stewart

JIM DeROGATIS

Like all of the modelers contributing to this book, as well as many others around the world, I first became aware of the name Sheperd Paine through the diorama tip sheets that Monogram Models included with more than two dozen armor and aircraft kits issued between 1972 and 1978. For novices, the tip sheets served as an introduction to the idea of placing their finished scale vehicles in realistic settings that told a story, while for more experienced modelers, Shep's imaginative, meticulous, and often ingenious scenes were an inspiration to take their own work to a higher level. His straightforward and encouraging prose made it seem as if the miniature slices of life depicted in the photos were within every modeler's grasp—even if that wasn't always the case.

Monogram tip sheets

In large part, the popularity of super-realistic scale armor modeling stems from Monogram's pioneering efforts—and Shep's work for that company and others.

"My work with Monogram came to pass because Syl Wisniewski, a long-term Monogram employee, saw my 1/25th scale Tamiya Tiger I," Shep said. "That was the second armor model I had ever done; the first was a Monogram Panzer IV which I built stock out of the box and painted just for the experience. These tanks were built just for fun; they were an itch that I wanted to scratch. By my later standards, that Panzer IV wasn't well done at all, but it was how I developed the painting and weathering techniques that I used on the Tiger I, which was [my] first serious armor model."

Most of the tip sheets had a block of standard text, supplemented by captions and pictures. "The sheets only had a very small credit on them—*Diorama built by Sheperd Paine*—but a lot of modelers later told me that was where they first saw my name, so I guess people were paying attention," Shep said.

By today's standards, Monogram's kits were bare bones, though Shep was undaunted in adding detail lacking in the box. "To me, a lot of the fun was taking a model that was a bit on the basic side and embellishing the detail. I think one reason I eventually got bored with armor modeling was that out-of-the-box models became so good that there was no need to put little bits of white plastic all over them!" He came to call the practice of adding bits of plastic, brass rod, and odd model railroad parts "creative gizmology."

"I wouldn't claim to have invented super-detailing; I was just the most visible practitioner," Shep said. "Part of the idea of doing the diorama sheets was to show that this level of work was not beyond the ability of a good modeler."

Shep's influence

I built quite a few of those Monogram tanks as a kid (and a lot of Tamiya armor too). Those tip sheets of Shep's inspired me to try my hand at dioramas that put my models in realistic settings, and which, most importantly to Shep, told a story that brought history to life. Of course, I couldn't come close to his level of artistry. The incredible lifelike quality of the



Many modelers were introduced to Shep Paine in the tip sheets he wrote in the 1970s for Monogram armor and aircraft model kits.



Shep considered this Tamiya Tiger I his first serious armor model. It featured a mostly scratchbuilt interior.



"A Wolf in Sheep's Clothing" placed a German 88mm antitank gun in a church, a diorama that Shep got some flak for.



15 Putty textured with specialized tools or a saw blade can be used to model Zimmerit as on this Tiger I. Diorama by Sheperd Paine



16 This M4A3E8 carries a bunch of supplemental armor including spare track links on the bow and racks of sandbags on almost every exposed surface.

epoxy putty, and texture it with the point of a scriber.

Crews used spare tracks as supplementary armor and you can find pictures of Shermans practically buried under piles of track sections. Added in the field, these tracks were rarely welded or bolted in place. Refer to photos, and position track on your model where it will not slide off. If tracks were welded in place, it was done crudely. To model, simulate the weld beads with epoxy putty or stretched sprue softened with liquid cement.

Desperate crews resorted to scrap lumber and logs to bolster a vehicle's protection. You can model wood-plank armor with styrene or basswood. Lumber used for this purpose would have been salvaged from wrecked buildings, so stain the wood a weathered gray, leaving splintered areas bright, and add chipped and peeling paint.

Twigs and roots make good logs, but search out those with natural bark texture. Such wooden armor was usually secured with rope or bailing wire running to and from tie-downs, screw holes, lifting handles, and anything else that provided a sturdy mount.

The Germans used Schürzen, or skirt armor, extensively in World War II. Photographs often give the mistaken impression that Schürzen consisted of thin sheet-metal plates hung on flimsy racks. But the sheets were ¼" armor plate, which was heavy enough to require a sturdy support system. Many German vehicle kits include overly thick skirt armor for ease of kit production,

although some manufacturers cleverly bevel the edge for a thinner appearance.

For scale-thin replacements, lay the skirts from the kit on a sheet of .020" styrene and cut around them (.010" is actually closer to scale thickness for 1/35 but is prone to warp). The best armor skirts are cut out of sheet brass, **12**. If the supporting racks in the kit are also thick and clumsy, use them as patterns to make new racks from styrene or brass. German side skirt armor was secured not only to the racks and brackets but to the fenders as well, and doing this gives your replacement skirt assemblies the rigidity they might otherwise lack. The German skirt armor was not perpendicular to the ground but was toed in at the bottom at a 10-degree angle.

Modeling Zimmerit

In 1943, the Germans suffered increasing casualties from magnetic limpet mines attached to tank hulls by daring Soviet infantrymen. To counter this threat, the Germans applied a special plaster or cement coating called *Zimmerit* to their vehicles, **13**. Zimmerit had no special anti-magnetic properties of its own, but when applied in a corrugated pattern, it acted as a nonmagnetic spacer that kept the mines far enough away from the metal surface so they would not stick. The corrugated pattern also meant the required thickness could be built up without adding too much weight to the vehicle.

Zimmerit was applied only to those parts of the vehicle that were particularly vulnerable to limpet mines. There were no hard and fast rules, but those parts

generally included all sides of the hull and turret and sometimes the armor skirts. Only rarely was the coating applied to upper surfaces or sheet metal parts such as fenders or stowage bins. Zimmerit was used on tanks and assault guns but rarely seen on self-propelled guns, half tracks, and reconnaissance vehicles. Fortunately, many new kits feature Zimmerit molded on the parts. There are also aftermarket options in resin, photoetched metal, and stickers, **14**.

You can also add Zimmerit with putty; both model and epoxy putty will work, **15**. Be sure to apply it as early as possible in the assembly process. Working one section at a time, apply a dab of putty and smooth it into an even layer about ½" thick with a putty knife.

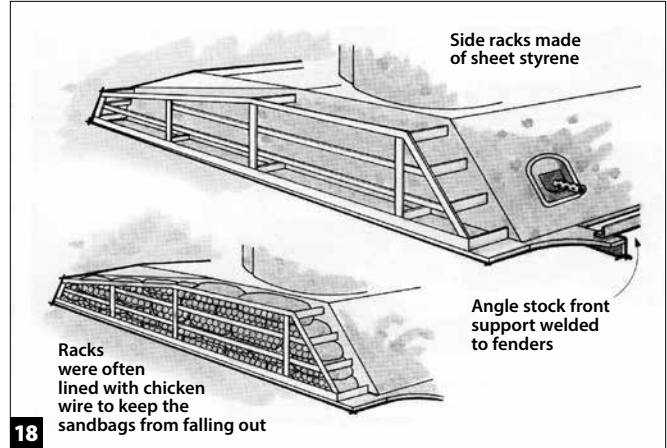
You can texture the putty with a section of an old razor saw blade, a piece of Campbell model railroad corrugated siding, or a commercial Zimmerit tool. Drag the tool across the surface, joggling it sharply to the side every ¼" to break the corrugated pattern. The tool should barely touch the plastic under the putty, keeping the layer of putty thin and perfectly flat.

Surface detail presents the biggest problem in applying Zimmerit. Whenever possible, apply the Zimmerit coating before separate detail parts are in place; install these parts while the putty is still wet to ensure a perfectly snug fit.

Molded-on surface detail presents more of a challenge. You can carefully shave off details and reattach them after applying the Zimmerit, but this is not always practical or realistic. The people



17 The sandbag racks on this tank are less complicated than those seen on the M4 in photo 16. Racks were made in unit shops, so they varied quite a bit in design.



18 Angled styrene pieces are perfect for assembling racks to hold sandbags.

working on the real vehicles had to cope with the same problem. Their solution, which works for modelers as well, was to apply a different pattern around surface projections, such as rivets and vision ports, which was usually a circular border. The most extreme example of this practice took place on the Sturmpanzer IV Brummbär, where the Zimmerit pattern spread in concentric rings from the gun mantlet across the entire front plate.

For large, irregular Zimmerit applications, you can make a miniature roller from wire, a spare road wheel, and a strip of Campbell corrugated sheet. But for small circles and other unusual patterns, you must form each corrugation separately, a tedious but necessary process. For this, epoxy putty is best. Texture it by pressing a small screwdriver blade into the surface. In fact, the texturing itself goes quickly—spreading an even coat of putty around each projecting detail is what takes the time!

Sandbags and sandbag racks

In World War II, great mounds of sandbags were piled on the front of tanks, and repair shops welded together steel frames so sandbags could also be stacked along the sides, **16** and **17**. In Vietnam, M48s were often encased in sandbags, both in fixed defensive positions and in the field.

Sandbag racks were usually makeshift affairs. The simplest versions amounted to little more than a few metal bars welded to the hull, and you can easily model these with styrene strips and add them to your model before installing the sandbags, **18**. Racks like the one shown in the

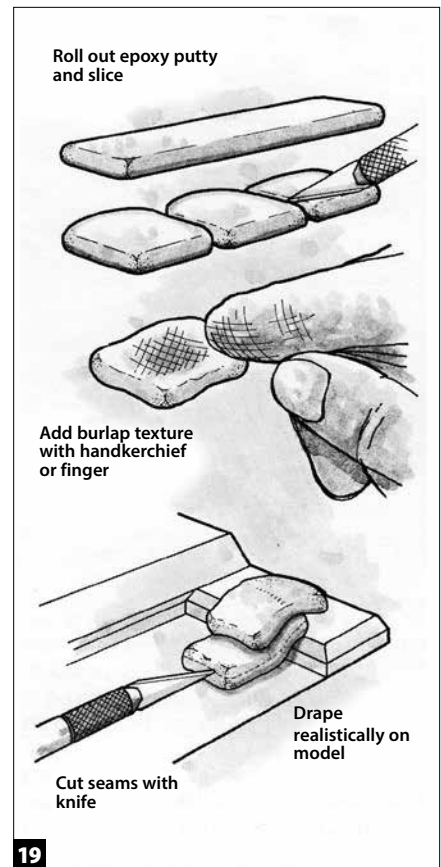
drawing are more complicated but not much more difficult to construct. Build the frame on the vehicle and then install the sandbags layer by layer.

I prefer sandbags made from epoxy putty over those sold commercially in accessory packets because, being rigid, the molded plastic bags can be difficult to fit realistically over a vehicle's surface, **19**. The vibration of the vehicle, not to mention rain and small arms fire, causes real sandbags to sag and settle noticeably, and only a soft modeling material can effectively duplicate this.

To make 1/35 scale epoxy sandbags, roll out a length of putty about 1/2" in diameter and flatten it lightly on a piece of waxed paper. Cut the roll into squares and then squeeze each with a piece of an old shirt to give it a cloth-like texture. Lay each sandbag in place on the vehicle, being careful not to smooth over the surface texture with your fingers. Then, with the bag in place, scribe a seam around the outside edge with a knife, and, if you wish, cut a few jagged holes to represent the effect of small arms fire. If needed, the texture on the bags can be touched up by pressing them again with the cloth.

Latches and fasteners

Tools and on-vehicle equipment are secured by special brackets or straps, but many kits omit the details of the latches, straps, and fasteners, **20**. In World War II, the Germans generally favored spring latches or screws with wing nuts, while the Americans used canvas straps with cinch buckles.



19 Epoxy-putty sandbags can be shaped to fit any part of a vehicle. This diagram shows the simple steps to making them.

You can make canvas straps by folding a strip of paper into a V. Glue the point of the V to the vehicle under the part, wrap and glue the straps around the item, and finish it with a solder or brass wire buckle. To make square wire buckles, wrap thin solder brass wire around a square brass strip. Slide them off the brass strip and cut



13

A tissue-paper tarpaulin stowed on the back deck of a SdKfz 251. Make sure to strap items down just as the crew would have done.

Diorama by Sheperd Paine



14

The aftermarket supplies a wealth of details like these resin oil drums, jerry cans, and crates. *Armand Bayardi Models*

pieces and trim the excess when you are done. Paper or card straps can be added later when the item is dry. Paint the rolls after giving each a quick coat of thinner to ensure proper coverage and eliminate white spots. Once the paint dries, dry-brush highlights and attach the roll on the vehicle with white glue, **13**. If the bedroll is strapped to or suspended from something, add the straps after installing it on the vehicle, running the strap across or around the fixtures they're supposed be fastened to.

This technique can produce unrolled or crumpled cloth, such as tarpaulins, blankets, or discarded clothing. After wetting the tissue, drape it over the model, arranging the folds with a toothpick or paintbrush. Use extra tissue to blot away excess moisture and then brush on a heavy coat of white glue. Once the initial glue dries, brush on more to eliminate the telltale texture of the tissue and then paint it. Use additional layers of tissue to simulate thicker material; as many as 10 plies of tissue may be required to duplicate a thick blanket or heavy overcoat. For these thick items, layer the tissues, cut out a rough shape, wet it carefully, and then cut to the exact shape.

Forming duffel bags

To ensure that duffel, laundry, and other soft storage bags conform to the surface they rest on, form them on the vehicle with epoxy putty. Press a blob of putty onto the model and shape it with a round, pointed tool using a rolling motion to keep the putty from sticking to it. Form wrinkles by pressing the tool into the putty. Then, let it set and paint it.

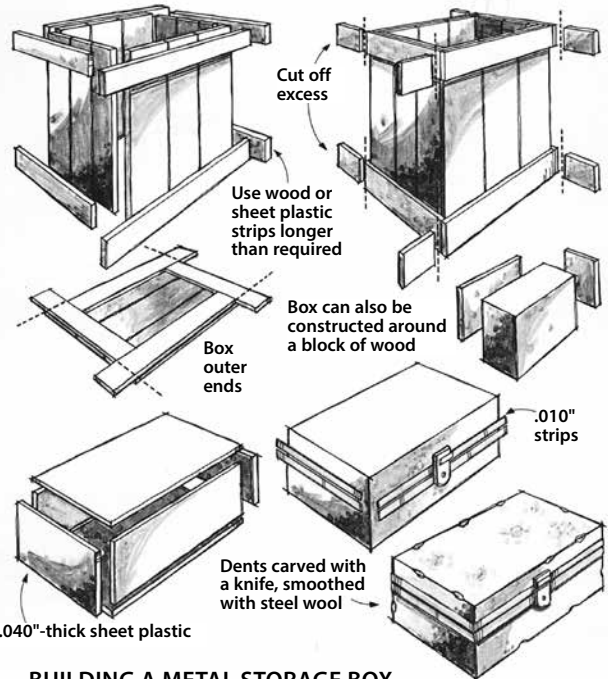
Spare parts and personal stuff

Spare vehicle parts, knapsacks, ditty bags, and other military equipment can be scavenged from other kits. Sometimes, figures themselves can furnish the required items; for instance, if you want a pair of boots or overshoes hanging on the side of your tank, just cut the feet off a standing figure, hollow out the tops, and glue them to the model at a realistic angle.

Boxes and crates

The aftermarket abounds with boxes and crates, including preprinted American ration boxes, so don't hesitate to use them, **14**. If you can't find what you need, you can make your own, **15**. Add handles and other hardware with bits of styrene and wire. Make a few nicks and dents

BUILDING A WOODEN CRATE



15

BUILDING A METAL STORAGE BOX

Strips of wood make great crates, but use sheet styrene for metal footlockers, tool boxes, and stowage bins.

to them with a knife, file, or motor tool, rounding off the edges with fine steel wool.

Interior decorating

Few armor kits contain much interior detail because much of the inside can rarely be seen. Even when the hatches are open, figures in them usually obstruct the view. Generally speaking, there is no reason to include detail that can't be seen, but there will be times when you want to open an engine compartment for maintenance or have hatches in the fighting compartment open, and interior detail will be required.

The first step is research. Detail differs from vehicle type to vehicle type, but the general nature of the detail remains much the same. Most tanks include boxes and bins welded to turret walls and other gear hanging on hooks.

If only one hatch is open, a suggestion of an interior is sufficient, perhaps a simple gun breech, some plastic blocks glued to the inside of the hull, and a hint of wiring. You can duplicate the real vehicle item for item if you wish, but I find that in a dark interior, a suggestive approach is just as effective and a lot less work.



16 This cutaway of a Sherman M4 at the Canadian War Museum in Ottawa, Ontario, shows its interior.



17 This Tamiya Tiger was built to be disassembled to show off the fully detailed interior. *Diorama by Sheperd Paine*



18 Jim Stephens' scratchbuilt Mark IV tank had a sponson removed so he had to add all of the engine detail.



19 This scene gives you a view of the engine of a Sherman tank as it is being worked on in 1944 in France. *National Archives*

If you pose all the hatches open, the amount of work increases. With extra openings, more light is admitted and there's more to see, **16**.

More and more kits provide separate hatches, but you may need to open a hatch if it is molded shut. Use a thin-bladed circular saw in a motor tool for most of the work, but do final trimming with a knife. If the hatch cover is a separate molding, the job is pretty much done once the hole is open. If the hatch is molded on, it will almost invariably be damaged by the cutting. Most hatches are simple flat plates that you can make easily from sheet styrene, and details can be transferred from the original hatch to the new one. Shave off small bits such as screws and hinges with a sharp knife. Larger details, such as vision block covers and periscope housings, are more difficult to remove; in fact, it is often easier to remove the hatch from the detail rather than the detail from the hatch. Cut away the hatch from around the detail, leaving

a small thickness of hatch. Sand away the excess material, and the detail is ready to glue in place on the new hatches.

Various interior details can be made from raw plastic stock, but the judicious use of parts cannibalized from other kits make the job a lot easier. Dashboards, steering wheels, and other parts from car kits are especially handy, and road wheels and other parts from tank kits are useful for making transmissions, elevation wheels, and similar gadgets. Unless you are determined to build a completely accurate interior, remember to check your work every so often to see what is actually visible through the hatches. There is no point in detailing areas that won't ever be seen, and you may also find a few areas you overlooked, **17**.

Few modelers open the engine compartments on their tanks, but if you choose to do so, you don't have to build an engine from scratch. Engines are available as aftermarket kits. Truck and car kit engines can easily be adapted to tanks.

The Lee, Grant, and some Sherman tanks used radial aircraft engines, which can be taken from 1/32 scale aircraft kits. Don't neglect the possibility of using in-line engines from 1/32 or 1/24 scale aircraft, either. You may have to do a bit of searching to find the engine that best suits your requirements, but there are plenty to choose from.

One glance at a photo of a real tank engine compartment shows that it is crammed with wires, hydraulic lines, and accessory equipment. If you want to build a completely accurate model, you have a lot of work ahead of you, **18**. If, on the other hand, you just want to create the appearance of the real tank, get a few photos or drawings to give you a visual impression to work from and start looking for parts that are close to the originals, **19**. The car or truck kit you swiped the engine from is an excellent source; hubcaps, for example, make excellent air filters. Ignition wire harnesses and hydraulic lines are best duplicated with solder wire.



13 Figures looking off the edge should have a purpose. Here, it is obvious where the off-base enemy is. Diorama by Sheperd Paine



14 Having the two figures on the vehicle adds interest, and the photographer, stepping onto the hull, helps connect with them. Diorama by Sheperd Paine

Placing and posing figures

Figures are your strongest allies. Pay close attention to where your figures are looking, pointing, or moving. Viewers will instinctively glance in the same directions, and you can use this to great effect. If you arrange the figures in your scene properly, you can direct a viewer's eye from one point to the next—figure A is shouting to figure B, who is standing next to C, who is looking in the direction of D, and so forth. You can also use this effect to direct attention back toward the center of your diorama, **12**.

By having your figures look back into the center of the scene, you can ensure that your viewer's attention does not wander off the edge. This is not to say that all figures at the edge of your diorama should be looking back toward the center, but if they are looking off the edge, there should be a perceptible explanation for it, **13**. Without such a reason, viewers will instinctively try to find one and be confused when they don't. For example, one figure looking off the edge is a riddle, while a man shouting and beckoning to someone outside the diorama makes more sense.

If you show troops in combat, don't have them shooting or attacking in several directions at once unless they are clearly supposed to be surrounded. Troops attacking in the same general direction provide a dramatic sense of motion and leave no doubt as to where the off-base enemy is located. Watch out for figures standing alone, isolated from the main action. A figure standing alone becomes a one-man subplot, and must have a valid reason for being where he is. A way to link a solitary figure to the main action is to

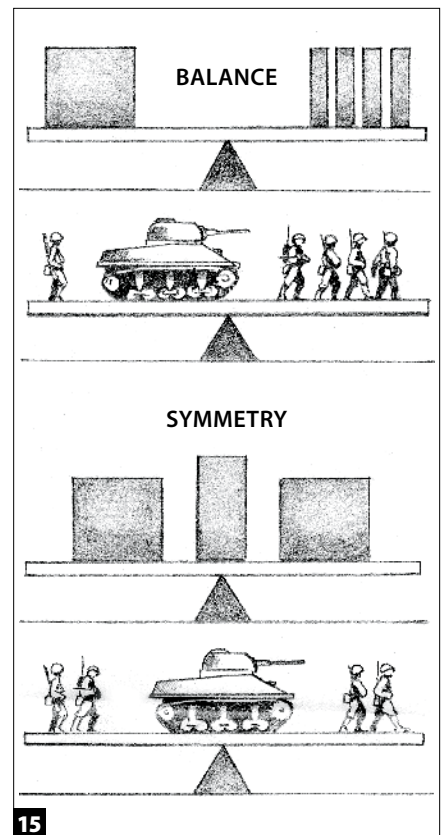
have someone nearer the center talking or shouting to him. Keep the two figures close enough that the viewer can see the connection (4" is about the limit). Often, crewmen on top of a large vehicle appear isolated from the main action, **14**. This can be corrected by having one figure lean over and talk to someone on the ground, and the connection can be strengthened further if the talking figure points to something (on or off the diorama) and the other figures look in the same direction.

Use background details and clutter to channel your viewer's attention. The eye has a natural tendency to travel along long, slender objects. A fallen log, for example, can be used not only to fill up empty space but also to guide a viewer around a corner and back into the diorama. The log can point to something you want to be seen or can serve as a connector between two objects separated by open ground. You can make this ruse a little less flagrant by pointing the log slightly away from the target so that it serves as a tactful suggestion instead of a direct order. The eye also is drawn toward the tallest and highest objects in a scene, so if an important element of your diorama is getting lost, move it to higher ground.

Balance

Balance won't likely affect the your story, but it does make your diorama more visually appealing.

In a nutshell, balance means that every diorama has a right side, a left side, and a center, and there should be something to engage the viewer's attention in each part. If you look at your diorama as a teeter-totter, the weight of visual attractions on one side should be about equal



15 While artistic balance is desirable in a diorama, symmetry looks artificial and contrived since it rarely occurs in real life.

to the weight on the other. If you have a big event on one side, you need a few smaller events on the other side to balance it. The same applies to shapes: if you have a large vehicle or building on one side, you need a number of smaller objects on the other.

Open space is also a factor in balance. A small object standing conspicuously alone can have as much visual weight as a larger object with less space around it;

THE ROAD TO DAMASCUS



Diorama by Sheperd Paine

This diorama is a good example of a project that “just sorta grewed.” The diorama depicts a scene toward the end of the Yom Kippur War of 1973. Shown is an intersection in Quneitra, the principal Syrian city in the Golan region. The town, abandoned since the 1967 war, was recaptured by the Syrians during the first few days of fighting, and then overrun once more by the Israelis during their counteroffensive, which put their armored forces within striking distance of Damascus.

In this scene, a damaged M51 Sherman tank is being transported back to the depot on an M26 armored tank transporter and recovery vehicle

(another rebuilt American relic of World War II). The Israeli “super Shermans” are remarkable tanks. Up-gunned with an awesome French 105mm gun and powered by a 500-hp diesel, these 30-year veterans were able to hold their own against Syrian T-62s, then the latest tank in the Soviet arsenal.

Although the scene is set before the arrival of the United Nations peace-keeping forces on the Syrian front, the UN had maintained observer teams in the Middle East since 1948, and one of these units is watching the proceedings. Their white Land Rover and famous blue berets provide the only touches of bright color in the diorama.

The tank transporter, the centerpiece of the scene, did not figure in the original design at all. I have always been fascinated by the souped-up Sherman tanks used by the Israeli army. My original concept was to do a scene of such a Sherman replenishing ammunition in an Arab town.

When I saw the kit of the tank transporter, I realized I had to include it. This meant eliminating the ammo idea, and posing the transporter in the act of negotiating a difficult corner developed instead. The knocked-out T-62, the Israeli weapons carrier, and the UN Land Rover were added as planning progressed.

a single figure can often balance a large vehicle. The ingenious and subtle ways objects can be balanced against each other is something that cannot be learned overnight. Experimentation and observation are the best teachers.

Balance does not mean symmetry, **15**. Avoid symmetry except where it occurs in real life. Few things in real life are laid out with a T-square and calipers, so there's little use for right angles and exact measurements in dioramas. Don't be afraid to try unusual angles, shapes, or designs, even with your bases. You can experiment with different ground levels in your dioramas and break the horizontal plane. Often, all you have to do to make a conventional idea spectacular is shift one or two elements up to a higher level. There is a wide variety of landscaping excuses for doing this.

Another consideration is what to do with dead space—open ground with nothing on it. You don't want to leave it

empty, but you shouldn't overfill it, either. Put in just enough to keep your viewer's eye moving smoothly over the scene from one detail to the next. It doesn't take much to fill dead space; leaves on the ground or oil spots on a road are often enough. Other convenient devices are small shrubs, pavement cracks, branches and twigs, discarded equipment, and irregularities in the ground. Small animals can also be useful, and snakes and lizards are good for desert scenes.

When laying out minor details, be careful that the arrangement does not appear arranged. Discarded equipment and fallen branches should be strewn about in a random, careless manner. Avoid even spacing and parallel alignments. This is harder than it sounds; it requires a conscious effort to be random. I have seen excellent battlefield scenes that looked artificial because the battlefield debris was as carefully selected and laid out as the stones and flowers in a

Japanese rock garden. The arrangement, though seemingly random, was just too perfect to be natural.

Finalizing your design

Don't hesitate to spend a week just fiddling with the elements and rearranging them repeatedly to ensure you like the final design. Many of the ideas mentioned here may well be things you have been doing all along without being aware of them. Let your instinct and your eye be the ultimate judge. Then, if something doesn't look quite right, the principles discussed here may help you correct it.

Above all, be patient. No matter how long it takes, you must have your idea thoroughly worked out before moving on to construction. When the base size, building design and dimensions, vehicle location, and figure poses and positioning are all firmly established in your mind, you are ready to start building.

Building a Leopard straight from the box

AARON SKINNER

PROJECT

1



Before moving on to advanced projects and stunning dioramas, it's important to master the basic skills of modeling that are covered in the opening chapters of this book. Revell Germany's 1/35 scale Leopard I is a modern kit that has some old-fashioned features, such as vinyl tracks. The model's fit isn't perfect, which provides you with plenty of practice in filling and sanding.



1 The Leopard's hull features separate bottom and side panels with an internal brace. Applying liquid cement from the inside minimizes the opportunities for glue to mar external surfaces.



2 To fill minor gaps around the lower hull, I squeezed in a little Vallejo plastic putty. The pointed applicator works much like a caulking gun and is ideal for fine lines.



3 The water-based putty is easily smoothed with a damp cotton swab, which virtually eliminates the need for sanding.



4 I trimmed the Leopard's springs off close with side cutters. A sanding stick makes quick work of the sprue attachment points and mold seams of the springs. Tweezers make it easy to handle small parts. Here, I hold a spring into place and flow liquid cement into the join.



5 Each of the suspension units had a mold seam that I eliminated by first scraping a no. 11 blade along it, keeping the edge perpendicular to the surface.



6 Revell molded the shock absorbers together with the road-wheel arms. I carved a little plastic from the joint to provide a sense of separation. Brushing a little liquid cement into the area smoothed out the rough spots left by the knife.

Building a Tiger I

JOHN MAHER

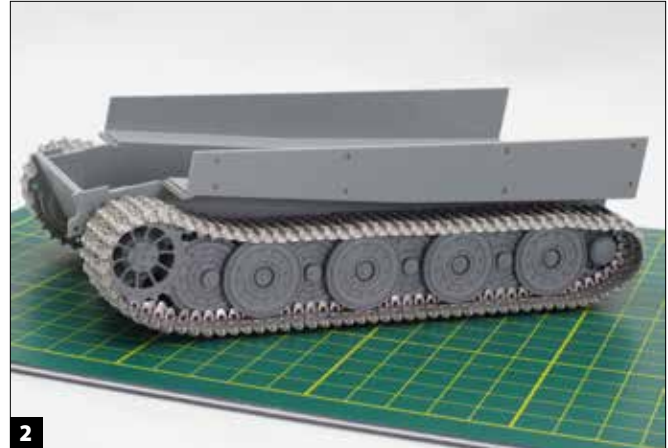


I've always been fascinated by the Tiger I: it's probably the most famous tank to see combat. Shep Paine shared that fascination—his first serious armor model was the Tamiya Tiger I in 1/25 scale with a full interior. So when Shep approached me to contribute a chapter to his new armor book, I settled on the same subject.

I chose the s.Pz.Abt. 504 as my subject Tiger battalion. Based in Italy, it was one of the few units to use Tiger Is right up to the end of the war, and it even had tanks assigned to it from the other Tiger battalion in Italy, s.Pz.Abt. 508, after that unit was disbanded in January 1945. This provided me with the opportunity to model a well-worn vehicle.



1 Along with the Dragon kit, I used a Verlinden interior set, Aber upgrade set no. 35 K10 (photoetched parts, turned gun barrels, and tow and track cables), ATAK resin Zimmerit set ATK 35032, and Friulmodel working metal track links.



2 The running gear required some juggling and judicious sanding so the road wheels would contact the ground. For the individual Friul metal tracks, I joined 191 links with .019" brass rod, but the end result was worth the effort, as the tracks draped naturally.



3 The Verlinden interior set contains 57 cast-resin parts, and each needed to be cleaned before assembly. Most were still attached to their mold blocks, which I cut off with a razor saw. I completed final cleanup with wet/dry sandpaper.



4 On the lower hull interior, I used plastic blocks and shims to help position subassemblies, a necessity with aftermarket parts that don't have positive attachment points.



5 To ensure an even surface so the paint would adhere to the various materials, I primed it with Mr. Surfacer 1200 thinned with lacquer thinner in a ratio of 50/50. Mist this primer mix lightly, so it flashes off quickly. Any pooling will soften the plastic enough to damage it. I masked the areas that would be glued later.



6 After 1942, German tank interiors were painted an ivory color above the sponsons and primer red below them. I began with the ivory and mixed this color with a few drops of Tamiya Buff XF-57 added to Tamiya White X-2.

Downward Spiral

GREG CIHLAR

PROJECT

6



I've always been a big fan of dioramas involving urban fighting, particularly at the end of WWII, so when I heard that MiniArt was releasing a tram in 1/35th scale, the wheels started turning. After scouring the Internet for photos and paging through countless books and magazines, I came across a tram that had been turned into a roadblock. By this point in the war, the Germans had become masters at retreating under fire, so I thought it would be perfect to have an abandoned 88 poking through a blown-out window. The figures circling around the tram completed the feeling of the end being near.



1

I built the MiniArt tram straight from the box. It's a great idea, but the tram was a bit over-engineered with a few too many fiddly bits (tiny detail parts added to the kit).



2

I also built the Dragon 88 pretty much straight from the box, but didn't glue it in position in order to make painting easier. It's a great kit that comes with photoetched details, brass chain, and a metal gun barrel.



3

When they were ready to paint, I pinned most of the figures to scrap wood. They are a mix of Jaguar, Verlinden, and Alpine castings.



4

I took the primary pieces in the scene and placed them on the layout to get the angles right and create a balanced look for the diorama's composition.



5

By setting the tram on a slight angle, I added a sense of drama and enhanced the feeling that something is wrong.



6

The building (Government Ruins from Dioramas Plus) provides a backdrop. I cut and repositioned the building so it would fit the background. I scribed the brick on the top story, which lacked detail.

No Man Left Behind

JOHN ROSENGRANT

PROJECT
7



Growing up in the 1960s, the Vietnam War was the first war that had a visual presence in daily American family life due to news stories on TV. The war always felt polarizing, which is very intense and troubling, so for me, this diorama had to depict that reality, and the horror that is war, with U.S. Marines evacuating the wounded and dead. I also wanted to show the intense camaraderie between brothers in arms, men in dire situations fighting for each other, and illustrate the military code of leaving no man behind.

The diorama centers on Dragon's M48A3 kit (no. 3546), which is a nice representation of a USMC Patton. This version incorporates two distinctive features signature to the M48A3: the Xenon spotlight and mantlet cover, which were omitted in Dragon's initial Mod.B kit (U.S. Army version). The fenders are a main distinguishing feature between the two versions, and Dragon has done a very nice job representing these details.



1

To replace the kit's reinforced rear panel (not used by the USMC), I opted for the DEF Model M48A3 Rear Panel, which comes with properly detailed drive sprockets, having the cutout mud-release holes. I added a jerry can rack on the port rear fender.



2

The air cleaners needed backdating, and the infantry phone box (at right) needed to be scratchbuilt to reflect the prevalent USMC version. I used plastic card and photoetched bits for this task. I also bent the kit's rear fenders to give them an in-combat look.



3

I made a resin casting of an old Tamiya air cleaner and cut off the hinges and latch to backdate the Dragon air cleaners to the earlier type. I added Tasca U.S. jerry cans to finish off a common look on USMC M48A3s serving in Nam.



4

The Legend Productions mantlet cover and Xenon searchlight captured the proper look. The spare tracks are from AFV. I replaced the .50 cal. barrel in the commander's cupola with a sharply detailed Tasca barrel.



5

This is a starboard view of the completed M48A3. I added nicely detailed TMD Sponson box handles rather than the kit's molded-on ones. These were simple to install by shaving off the Dragon handles with a sharp hobby knife blade and then gluing on the resin replacements.



6

Legend kit no. 1269 M48A3 Vietnam Stowage Set II provides the specific gear seen stowed in the turret stowage rack. I replaced the jerry can on the turret with one from Tasca, added an etched-brass strap from my spare parts box, and scratchbuilt a more detailed holder out of styrene. I also detailed the hatches.