



1-1 An Italeri Tiger I superdetailed with new Academy tracks with spare links. On the Mark etched brass grilles, skirt hangers and smoke discharger supports. The 712 decals are from Tamiya.

MAKING HISTORY

Model building is essentially recreating realistic history you can hold in your hand. The miniature in your hands is there because there was a real or imagined prototype (the real thing). When you are successful as a modeler, it takes virtually no imagination to see that model as the real thing. A realistic model can be defined, then, as a model where there is nothing about that model that makes it look like a model.

Before the introduction of plastic kits, it took the talents of a sculptor to shape blocks of balsa into the shape of an aircraft or an armored fighting vehicle ("armor" for short). Thanks to plastics and resin, the shapes are generally perfect. Sure, you'll discover as you research the prototype for your model that the aircraft or armor you want to duplicate is really a variation on the kit and yours may need a new wing shape or cockpit or turret,

in addition to some minor details, paint, decals and weathering. There are, however, enough limited-run resin, plastic, and conversion kits that you can likely buy the shapes you need.

ARE YOU AN ARTIST?

In spite of the large availability of kits for the basic shapes of a model, it still requires the skill of a trained artist to match the colors and hand-paint the markings of the prototype. The hobby manufacturers have gone a step further in the last decade or so to make it possible for just about anyone to match the specific colors and markings of aircraft and armor. The perfection of the airbrush and reliable and quiet sources of "air" are now available to anyone, not just the professional artists who were the first customers for airbrushes.



1-2 A MIG-29 and the twin-seat MIG-29UB "in flight." Both are Testor models built by Terry Tuvtyschev.

The airbrush has also made it far simpler to apply weathering to aircraft and armor models because you can mix the colors with thinner and apply them as "virtual dust" in a process very much like the exposure to the conditions of the real-world colors of the prototype.

BRING REALISM WITHIN YOUR REACH

The basic tools and materials are now available, but they are not going to be useful to you without *three other elements*:

1) technique – to use those tools and materials and *2) the practice* it takes to develop the skills to apply those techniques. We can help you find the materials and all the techniques you need, including many alternatives, on these pages. The third element is what you must supply, *3) the patience* to try these techniques and, if you're not satisfied with the results, to try them again and again until you master them. Everyone, even the professional artist, has to learn by practice. Thanks to the modelers

who have been willing to share their techniques over the past half-century, the techniques are available to you and they are simple enough and well-proven so you definitely can learn them. The ultimate realism, not being able to spot a flaw that would make the model different from the prototype in anything but size, is available to you.

Some modelers refer to the place where they build their models as their "workshop." I prefer to call it a studio as in "artist's studio." Traditional advice is to recommend a perfectly clean and well-illuminated room dedicated to the building of models. The reality, however, is that some of the best modelers work at a desk in their den and the area looks like a bomb armed with paint and pieces of plastic has just exploded. No one but your immediate family is going to judge how neat or orderly your area must be.



1-3 This Priest M7 self-propelled artillery vehicle is an Italeri kit. The interior is superdetailed with over 50 shells and ammo boxes from Verlinden. Doug DeCounter used fine mesh screen and brass wire to build the gun basket. The markings are Verlinden dry transfers.

SEEING IS BELIEVING

The one essential ingredient for your studio, however, is good light from at least three sources so you are never working under a shadow. You can choose a couple of fluorescent lights placed directly above and to the side of the work area plus an incandescent "spot" light from a third direction. Or you can choose three fluorescents, three incandescents or any combination. If you opt for fluorescents, I would suggest using one of the "Warm White" or "Soft White" bulbs that have an orange tint rather than the cold blue of "Cool White" and similar shades. The warmer colors are more typical of outside light and you are more likely to get a better match for prototype colors under those lights. Incandescent or halogen lights all produce a warm enough light to be similar to natural lighting.

Modelers pride themselves on their excellent close vision. Maybe your eyes are powerful but, too often, it's a case of ego interfering with reality. It is impossible to get really parallel lines or correctly aligned parts or even correctly aligned decals if your close-up vision is poor. A free-standing magnifying glass, a headband with magnifying lenses or just a really good pair of magnifying glasses are helpful modeling tools. Some modelers take close-up photos of their work to help them catch any flaws in the models. That's a bit cumbersome when you can see the flaws just as clearly with the help of some on-the-spot magnification as you are building and finishing the model.

THE COMMITMENT, YOU AND YOUR KIT

If you want to get the most from each model you finish, you will want to find a kit that suits your skills and your willingness to get involved with the model and the research process: in very loose terms, a commitment. Find a kit that's a match and you'll have pleasure and delight. Find a kit that's not a match and you're doomed to, at best, frustration and, at worst, pitching the model into the trash.

Plastic model kits have evolved to the point where they are available in a wide range of complexity to challenge all skill levels. Some of the very simple kits are marked as beginner kits. It's the other kits that can prove frustrating. Generally speaking, the larger the model, the more complex and the greater the number of pieces. Some of the 1/72-scale aircraft, however, have as many pieces and details as the larger-scale models and, perhaps, photo-etched parts (explained later) as well. Some of the resin kits require extra skill. The assembly of the vacuum-formed kits (made from sheets of flat plastic formed over molds by vacuum) require new skills. Do not, then, assume that just because the kit is plastic it will be easy to build. Develop your modeling skills in obtaining a perfect fit and finish with simple kits, then progress to the more complex kits once you have mastered the advanced skills of making that simple kit into a realistic replica.

The finish you want on the model can also make it more complex a project than you might imagine. It takes some real experience, for example, to learn how to apply a realistic bare aluminum finish. If this is your first model to be finished in bare aluminum, you'd be happier with a 1/72-scale P-51 than a 1/48-scale 747. Similarly, some of the more complex camouflage paint schemes are best avoided until you have first mastered the art

of airbrushing on a model with just a simple two-color solid paint scheme. If you decide you want a well-weathered aircraft or armor model, learn that art on one of the simpler kits before tackling it with a complex 1/48-scale bomber or a 1/35-scale Armored Personnel Carrier.

RECREATING HISTORY

You can buy a model to duplicate just about any aircraft or armored fighting vehicle from any period. If the kit is not available now, it likely has been made and can be located at swap meets or through classified ads in the modeling magazines. If you don't find it there, you may find a conversion kit to create it, by modifying some existing kit. If you still can't find it, be patient, there's a good chance some manufacturer is tooling up to produce it in the near future. Go on to something else while you wait.

When you know that there's a kit available for just about any prototype, you can take a slightly different approach to the hobby. Rather than starting with the kit, start with research on the real thing. Most of us have specific aircraft or armor that we've always wanted to model. The proliferation of kits is only exceeded, perhaps, by the proliferation of books. Public libraries often have major sections on aircraft and armor. The libraries' book selections, however, tend to be rather broad with books that show a lot of photos about a lot of airplanes. What you may prefer are some of the smaller books and booklets that deal with specific aircraft or armor and the close variations, with aircraft or armor from smaller countries, or from very specific time periods in limited theaters of operations.

The best source for those books is your hobby shop. There are probably a hundred publishers of books on aircraft and armor. Many of the publishers are based in America or England, but some of the more interesting

titles come from other countries in Europe and from Japan. You do not, necessarily, need text in English since the identification designations are a universal language once you know something about the prototype aircraft or armor. Larger hobby shops should be able to get catalogs from publishers that include Aero Publishers, Aerofax, Air Research, Aircraft Photo Packs, Ian Alan, Arco, Argus, Aries, Avery, Aviation Heritage, Aviation International, James Bender, Berlin, Challenge, Bill Dean, J.J. Fedorowicz, Flying Machine Press, Ghosts, Ginter, Grubb Street, Hippocrene, Historic Aviation, Howell, Jane's, Kalmbach, Merriam Press, Monogram Aviation, Motorbooks International, Osprey, Pacific Aero, Presidio Press, Phalanx, Prentice Hall, Putnam Aeronautical Books, RZM Imports, Shiffer, Specialty Press, Squadron-Signal Publications, Sterling Publishing, TAB Books, Valor Publishing, Windrow and Green, Uni Pub Books, and others. Hobby shops usually have buyer's guides for the hobby industry that list the names and addresses of publishers or you can ask a book store to look them up in *Books In Print*.



1-4 Italeri's M4A3 Sherman tank with Calliope rocket launching battery is featured in most books dedicated to Sherman tank variations.

HOW TO TELL IF YOU'RE AN EXPERIENCED MODELER

The one skill that separates an experienced modeler from a newcomer to the hobby is that the experienced builder never, ever, starts a model without at least one published photograph of the prototype he or she is going to recreate on the workbench. You can develop your modeling skills by duplicating the box art, but there's an ever greater satisfaction in finding a variation on the box art model, even if it's just an I.D. number.

The drawback to working from the box art is that you are removing yourself from the prototype by one giant step: you are not modeling the real thing, you are modeling an artist's or modeler's interpretation of the real thing. That same statement is true if you



1-5 The Accurate Miniatures A-36 Apache was a variation on the P-51 Mustang.



1-6 The Italeri A-6E Intruder painted and decaled to match the box art.

try to duplicate the work of another modeler whose model might have appeared in one of the magazines. It's enough of a challenge to interpret the prototype's subtle color and shape variations when you are working directly from a photograph of the prototype. Trying to model from a painting or another model is a virtual guarantee that you will compound the errors that the first painter or modeler has included.

THE HOBBY WITHIN THE HOBBY

If, like most of us, you just could not resist buying that kit at the hobby store, set it aside until you can locate a book or booklet that will provide at least one photograph of the real thing. This sounds like discipline, but you'll soon discover it is one of the greatest pleasures in modeling. When you spend some time researching the prototype for your model, you discover why the real thing existed, how it performed, where it performed and generally make a "friend" of that aircraft or armor. It's that familiarity that can give your model character and life in your eyes and that can often translate into including tiny details (perhaps, like chipped paint around the doors), that really do improve its credibility. The experienced modelers often spend as many equally enjoyable hours reading about and studying the prototypes for their models as they do building and finishing the models themselves.