

Introduction

Hard to believe we are already back here again! For those of you that are new, this is my monthly series in which I share my thoughts and basic instruction on constructing the various pieces of terrain required to play Kings of War. Thanks to all of you for the kind words, it has been a great dose of encouragement and inspiration. In this installment, we will tackle what many would consider the definitive piece of tabletop war-gaming terrain, the hill.



Hills

Hills are a unique piece of terrain as they don't fall into one of the four types of terrain as defined in the Kings of War rulebook. They are usually treated as open ground but have the distinction that they can significantly affect line of sight. If positioned behind a hill a unit may gain cover or their line of sight may be blocked. If positioned on the hill the unit gains increased visibility to the battlefield which is especially useful for war engines. So there is certainly a tactical advantage to securing and using hills as part of your strategy.

Hills, in much the same way as forests, usually have lots of interaction with the units on the tabletop. As such, their playability has to be carefully balanced with their aesthetic. Decisions over the footprint, height or the angle of the slope of the hill are just as important as what you want the hill to look like. Over the years, I have used just about every method possible to create a hill. However, no matter what type of hill you are going for it usually starts with a piece of foam. For making terrain, use Extruded Polystyrene foam whenever possible. Designed to be used as insulation it comes in a variety of thicknesses. Typically, pink or blue in color and is easily cut or sanded. The other common type of foam available is Expanded Polystyrene foam. It is usually white in color and commonly used as packing material for electronics. Unfortunately, while less expensive, Expanded Polystyrene foam is not as dense or durable and easily crumbles when cut or sanded.



Step One – Materials

Here is the list of materials that I used to create my hills. Please note that this list uses many of the same materials that we used for the previous tutorials. In addition, the list assumes you already have common supplies like glue and brushes. Feel free to substitute to whatever brands you prefer or materials you already have on hand.

- [1" Extruded Polystyrene Insulation](#) – I prefer to buy this as a 4'x8' sheet from a big box DIY store
- [Rock Molds](#) – These Woodland Scenics molds come in a host of sizes and styles.
- [Smooth-Cast 300 Resin](#) – I prefer to buy this in the trial size from Amazon or direct from the manufacture.
- [Sculptamold Modeling Compound](#) – This can usually be found at your local Model Railroad Shop.
- Sand - My preference is builder sand as it is coarser and will include small pebbles
- [Ballast](#) – Woodland Scenics makes a wide array of sizes and textures.
- [Grey Primer](#)
- [Earth Brown Camouflage Spray Paint](#)
- [Raw Umber](#) Paint
- [Raw Sienna](#) Paint
- [Unbleached Titanium](#) Paint
- [Dark Grey](#), [Grey](#) and [White](#) Craft Paint
- [Agrax Earthshade and Athonian Camo Shade](#) – Games Workshop
- [2mm Late Summer Static Grass](#)
- [Farm Pasture Flock and Turf Blend](#)
- [Grass Tufts](#)
- [Summer Flowers](#)

Step Two – Designing the Hill

As with most of my projects, it all starts with a pattern made from cardboard. Play with the overall size and shape until you find something that you like. Keep in mind that the size of the hill will substantially affect its playability. Too large and it may be unwieldy or too small and it could be ineffective. Once you have the design cut out the cardboard pattern with scissors. Over the years, I have grouped my patterns into small, medium and large sized hills. For practicality I will typically build a bunch of hills at a time and will make roughly 50% of the hills medium sized, 25% large sized and 25% small sized.



Step Three – Forming the Hill

Take your pattern and trace it onto the [Extruded Polystyrene Foam](#). For this tutorial I'm using 1" thick foam but you could easily use thicker material to build taller hills. Cut out the hill with a sharp hobby knife, jigsaw or a hot wire tool.



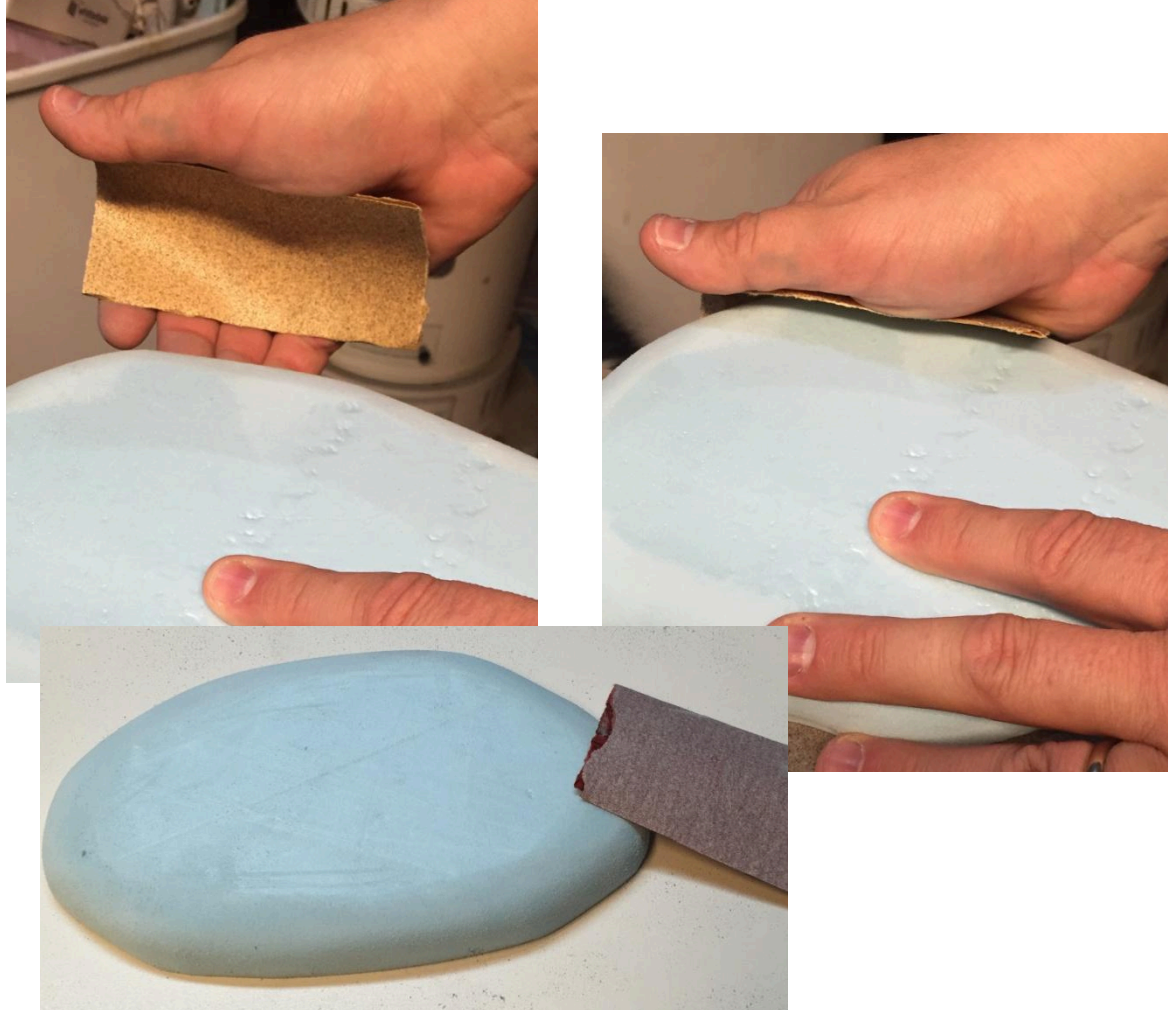
Chamfer the top edge of the hill with sharp hobby knife or hot wire tool. The key is to remove material to make sanding the edges of the hill easier and less time consuming.



Round over the edge of the hill by using a palm sander with 120 grit sand paper. The technique that works best is to use a rocking motion that pivots the sander from vertical to horizontal. You could also use file to round over the edges of the hill.



Finally, sand the edge of the hill by hand with 220 grit sandpaper. I find it best to cup the sandpaper in your palm and run your hand over the edge of the hill while having the hill suspended off your work surface. When complete you should have something that looks approximately like this.



Note that I am building a single tiered hill in this tutorial. However, you can easily create multi-tiered hills by adhering a smaller hill to the top of a larger hill with wood glue. Just keep in mind that you should completely sand the edges of both hills prior to attaching them together. Also, another option is to mount the hill to a piece of MDF which will significantly increase the durability of your hill.

Step Four – Rocky Outcrops

If you desire a totally smooth hill you can skip this step but I find this will add visual interest as it breaks up the uniform color and texture of the hill. For this tutorial, I used a [resin](#) cast of a rocky outcropping from a premade [mold](#) from [Woodland Scenics](#). Lightly dust the inside of the mold with baby powder. Mix the resin per the instructions provided, pour it into the mold and wait for it to cure. While I chose to use resin for the increased durability you could also cast the rocky outcropping in plaster or substitute it completely for a piece of dried pine bark. Before attaching, be sure to thoroughly clean the cast in soapy water to remove any mold release. Determine where the rocky outcropping will be placed on the hill and trace its location. Remove material under the rocky outcropping with a sharp hobby knife to embed the rocky outcropping into the foam. Adhere the rocky outcropping in place using 2-part epoxy.



Apply [Sculptamold](#) along the edge of where the resin cast meets the foam. Then with a wet, gloved finger, feather out the Sculptamold to blend the edge of the rocky outcropping into the foam. This gives the appearance that the rocks are jutting out of the side of hill. Allow everything to dry for 24 hours but keep in mind that the thickness of the layer of Sculptamold used will affect the drying time. It is also important to mention that I chose to use Sculptamold instead of a 2 part modeling clay, like Apoxie Sculpt, as it less expensive, easier to work with and naturally provides a rocky texture.



Step Five – Texture

To give the foam an extra layer of projection and to provide a texture for dry brushing cover the hill (not the rocks) with PVA glue followed by sand. Depending on the texture you are going for you can also use crushed walnut shells to good effect. Break up the texture by adding patches of model railroad [ballast](#) around the base of the rocky outcropping. Finally give the hill a good solid coating of PVA glue to lock in the texture and protect the foam from the painting process.



Step Six – Painted Hills

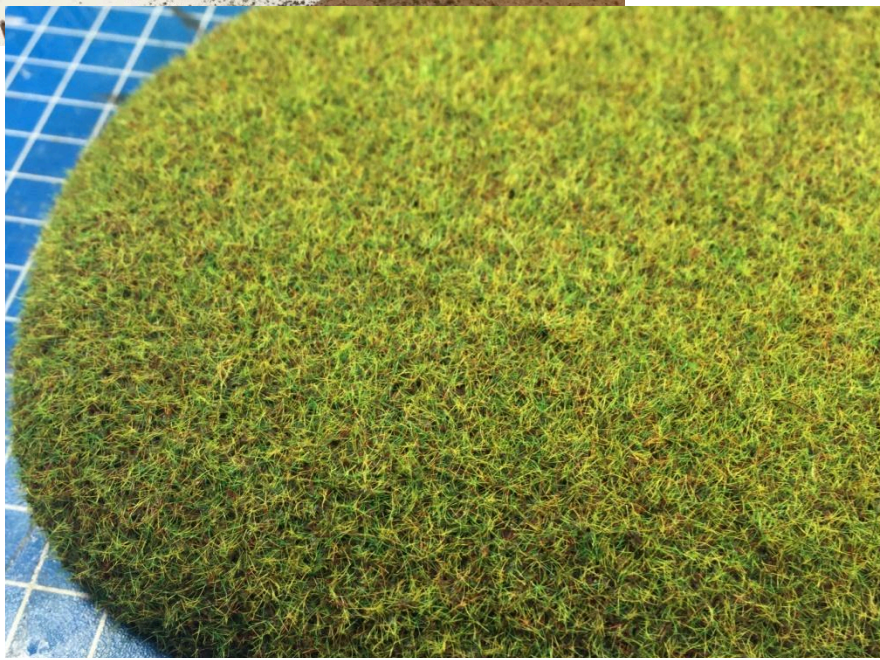
Since we are going to cover most of the hill with flocking materials, try not to spend too much time on the paint job. However, do take your time with the rocks since they will be completely exposed and visible on the finished hill. Start by spraying the rocky outcropping with a coat of [Grey Primer](#). Spray the rest of the hill with [Rustoleum Earth Brown Camouflage paint](#) being careful to avoid the rocks. Clean up the edge between the hill and the rocks (where the grey and the brown meet) by applying [Raw Umber](#) (Dark Brown) paint by hand. Follow this with a light dry brush of [Raw Sienna](#) across the surface to highlight the texture of the sand. Next using a very dry brush and a very light touch apply a final highlight [Unbleached Titanium](#).

For the rocks base coat them with [Dark Grey](#) followed by a dry brush of [Grey](#). Using a very dry brush and a light touch, apply a final highlight of [white](#). Break up the grey rock by using washes as detailed in the previous tutorials on Buildings. As a reminder, I used [Agrax Earth Shade](#) (Brown) and [Anthonian Camo Shade](#) (Green-Brown) from Games-Workshop but you could use whatever washes you have available. Apply a “drip” of wash to the stonework letting it run down naturally into the detail. Work quickly to avoid having the wash dry out remove the excess wash with a cotton swab. Finally, feather the edge of the “stain” with a wet brush.



Step Seven – Rolling Hills of Grass

Cover the hill with PVA glue being careful to avoid the rocky outcroppings. Sprinkle [Farm Pasture Flock and Turf Blend](#) onto the glue using a sieve. Once dry apply a mixture of 50% water and 50% PVA glue to the flock using a foam brush. Apply [2mm Late Summer Static Grass](#) with an electric static grass applicator as this will give taller, straighter and more realistic grass. However, in a pinch you can still get decent results by applying the static grass with a sieve. You can get more details about this technique of applying static grass [here](#).



Step Eight –Finishing Touches

As a final touch, add [Grass Tufts](#) and [Summer Flowers](#) around the base of the rocky outcropping with a drop of CA Glue. After the glue is dry spray the hill with matte varnish to lock everything in and dull down any shine left from the PVA glue or washes.

