

# HAUNTSVILLE

Watch Your Step  
By Larry Treadwell



Nothing in nature is flat and therefore neither are my villages. Whenever I construct a village I always incorporate hills and multiple levels into the village landscape. Generally, the further away a building is the higher it is in the display. Having multiple levels makes it much easier to see the buildings toward the back of a display and also to see the various details I try to build into my villages. The problem with multiple levels is how do the villagers manage to get from level to level? The answer is simple, they just walk up the steps! However, there is a small problem, where do you get the steps. I have three answers, first I carve the steps into my Styrofoam base (you will see lots of this in my displays, especially when I only need one or two steps). The second, and a more visually

impactful solution, is to build a staircase like the one shown at the beginning of this article. The third is to carve the entire staircase out of a small block of Styrofoam. This is extremely difficult, and I only recommend it for those who are quite skilled with the hot knife tool. I'll show an example at the end of this article.

In the image above I have included not only a staircase, but two stone walls, one on each side of the stairs. The process for both the walls and the stairs is basically the same show so I'll show how to build these walls when we get finished with the stairs. Let's get started and build a staircase.

You will need the following items to make the stairs. First, you will need a tool to cut Styrofoam. I use two tools, the HotWire cutting system for delicate and fine work, and the heavy duty beast, the industrial Hot Knife for cutting thick foam and general shaping. My choice for this project is the Hot Knife shown at the right. This is an industrial strength, heavy duty knife with an 8" cutting blade and a variable temperature control. This will cut Styrofoam like a hot knife goes through butter. I have carved 6 foot tall Styrofoam trees with it. There are various brands available online and while they are a bit pricey they are worth every penny. I've had mine for more than 15 years and it is still going strong.

You will also need a block of Styrofoam to form the stairs. My block is 2 inches high, 4 inches wide and 3.5 inches from front to back. But you can make your stairs any size you want. Shown at right is the basic



block with the top step already cut out. NOTE: For your health and safety, I strongly suggest that you use the hot knife in a well-ventilated area. The fumes can be toxic.

You will need a hot glue gun. The gun shown here is a cordless, battery powered Ryobi. I really like this gun because it is battery powered and not only is there no cord to get in the way but I have unlimited time to work without having to worry about gun cooling off. This is the best glue gun I have ever owned.

You will also need rocks. More correctly, pebbles. I collected mine from various streams and rivers throughout North Carolina where they have been tumbled in the rushing water and are smooth. I select the flattest pebbles I can find and in various sizes and shapes. Most are less than  $\frac{3}{4}$  of an inch long or wide and some are only  $\frac{1}{4}$  of an inch. You will need a variety of sizes so collect a bunch. I find it to be fun sitting on a rock in a rushing stream with your shoes off and your feet in the chilly water. I could sit that way for hours. Rock collecting is one of the many joys of being a Village Landlord.



#### THE CUTTING PROCESS

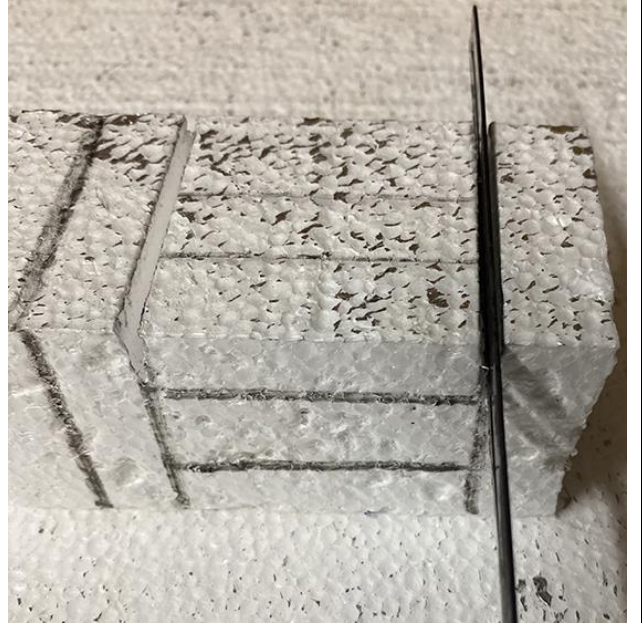
The cutting is a slow process so do not try to rush it. You will be working with a Hot Knife with the temperature turned down so a single cut will take several seconds. Let the knife do the work while you just guide it.

I'm using a scrap block of foam to show the cutting process. I have had to hold the knife with one hand while taking the photo with the other and therefore pinned the block of foam to the base while I took these photographs. When you do your cutting you need to keep the blade moving so the foam does not melt. What is important in the following photos is the position in which the knife is held to make each cut.

**Cut 1.** Note I have marked the positions of each cut for the staircase on the foam—both the front and the top. There is some extra foam on the left that would not be on your stairs. It is here so I have something to clamp the foam into place while I take the picture. The first cut is made on the top of the stairs and will create the inside side wall for the first step. The knife is held in the horizontal position and will cut the stairs from front to back and will only be as deep as the first step. Place the knife in line with the pen mark and then press down while keeping the blade level. Do not draw the knife from front to back, just press it down. Remove the blade by lifting it straight up.



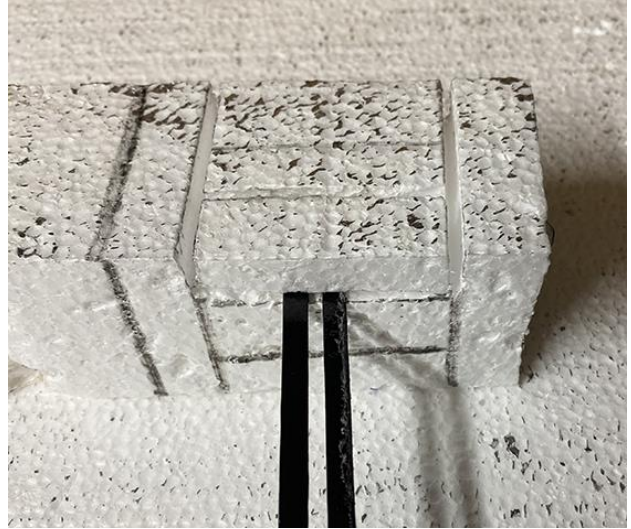
**Cut 2.** The second cut is the same as cut 1 only this time on the right side. It is always important to keep the knife level as you make the various cuts so be careful.



**Cut 3.** This is a difficult cut because you are cutting blind. The knife must be held vertically and will be cutting across the stairs forming the back of the step. Start by pushing the tip of the cutting blade into the foam to the depth you made the second cut. Note how the blade is visible in the space on the right left by cut 2. Once the knife is at the proper depth move it from the right side to the left until it shows in the space left by the first cut on the left. Lift the knife straight up to remove it from the foam.



**Cut 4.** This is the most difficult cut to make. Start the cut at one side, this cut was started on the left as I am left handed. You will start by pushing the tip of the blade into the step moving from the front edge of the stop to the place where you made cut three. You should be able to look down the space created by the third cut and see the tip of blade being pushed into the step. When you see the tip of the blade slide the blade from the left side to the right side. This is why you must keep the temperature low because if it is too hot you will melt the foam. The knife will be inside the foam for several seconds so keep it moving. When you reach the right side just pull the blade toward you to remove it from the foam. If everything was done correctly you should be able to remove the piece of foam you have been cutting.



This is how the stairs should look after removing the cut piece of foam.

From this point you just keep repeating the process of cutting out sections of foam until you have completed the entire stair case.



Shown on the right is the block of Styrofoam with the stairs cut out. Notice the stairs look a bit rough. That is perfectly fine because the stairs will be covered with rocks. The most important part is to keep the stairs level.

After cutting out the stairs I paint the entire staircase a color similar to the stones that will be used. You will have space between the stones and you do not want pink or white foam showing on the finished stairs. You can use any craft paint you have available to paint the stairs. I get my paint from Michaels when it is on sale. This staircase is painted dark gray like the rocks I will be using, but you could paint it light gray and let the paint show between the rocks to look like mortar.

Selecting and gluing the rocks to the foam stairs is much like putting together a puzzle. Start at the top of the stairs and select what ever rocks will fit to cover the step. Place a dab of hot glue on the bottom of one rock at a time and then press it into place on the stairs. Work from one side to the other. DO NOT put the glue directly on the foam as the hot glue will melt the foam and your stairs will dissolve before your eyes causing much frustration and anger. When you finish the center of the top



step, do the sides of the top step then proceed to the middle step.

Continue to glue rocks to the stairs working from top to bottom and doing the side of the stairs as well. When you finish the steps proceed to the outside of staircase (the part not shown here). Then do the front of the stairs and finally glue the top of the side panels. This will let you select the rocks that will most visible to the viewer and to also cover any gaps that may show between the rocks.



At right is a finished staircase. Notice the flat rocks along the top of the side panels. I carefully select these rocks making sure that they are big enough so that I can place some village accessory on the top. Check out the image at the top of this article and notice the gargoyles positioned on the top of the stairs.

In my Hauntsville displays I've decorated my stairs with gargoyles and pumpkins, even a cat or two. At Christmas I've used candy canes, snowmen, miniature trees and flowers in pots and even Christmas





wreaths on the front attached with Tacky Wax.

**Why not make some stone walls as well.**

When I was traveling in New England I noticed all the lovely stone walls bordering the fields. I decided to make several of these walls and now have several dozen walls in a variety of colors. Most of my walls are like the ones shown below but I've made curved walls and even some columns. Check out the walls below for some examples.

NEW ENGLAND STONE WALL



ROUGH STONE WALL



NEW ENGLAND WALL WITH SNOW



To construct these walls I use a piece of  $\frac{1}{4}$  plywood 5  $\frac{1}{2}$  inches long and  $\frac{3}{4}$  inch high. The finished wall will be a little over an inch high because you will be placing a capstone on top. The wall will also be close to 6 inches long because there will be an endstone on each end.

While writing this article I thought some of you might not have a power saw to cut plywood so I came up with an alternative method and will show this method at the end.

The wall to the right clearly shows the plywood center and the endstones along with the side stones.

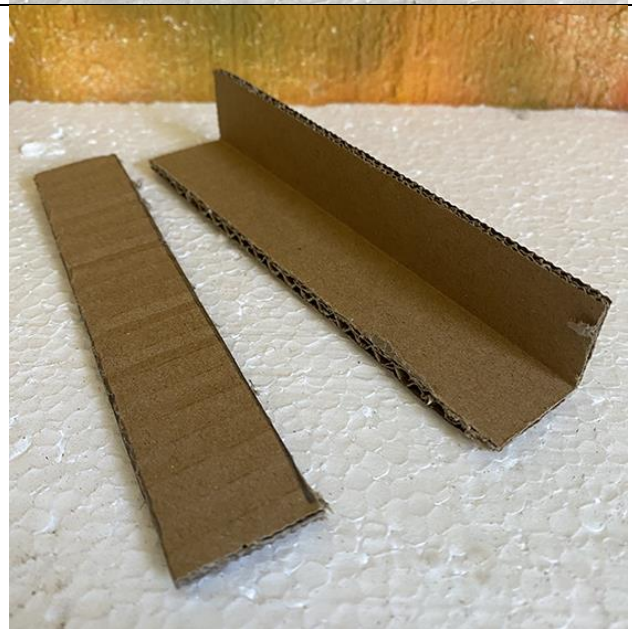
Assembly is done in the same way you added rocks to the stairs. Starting with the side of the wall place some hotglue on a stone and then place the stone on the plywood. Continue until one side is finished. Then glue stones to the other side in the same manner. Next add the end stone to each end and finish gluing on the capstones for the top of the wall.



Stone wall showing the Endstone and the Capstones



If you do not have the ability to cut the plywood as described above you can make the same type of wall using cardboard from a packing box. The pieces shown at the right were cut from a Chewy box that delivered dog treats to my home while I was working on this article.



Like the plywood these cardboard pieces are  $5 \frac{1}{4}$  by  $\frac{3}{4}$  and were cut these with a pair of craft scissors but your could use a matte knife if you prefer.

After cutting the cardboard to size I used the hot glue gun to glue the three pieces together. I used three pieces of cardboard because two layers just felt too flimsy. Remember when you put the stones on the sides of the cardboard the wall gets thicker. Your capstones will sit on top of the side stones and the cardboard. See the picture below.



After gluing the cardboard together then glue your flat stones to the cardboard just like I described when working with the plywood earlier in the article.

The wall shown here stones visible on one side, an end stone visible on the left and two of the cap stones already glued in place. The final cap stones are visible in the foreground.



Shown at right is a quick display using a cardboard wall. The end result is just as effective as using the plywood.

For those of you who have followed my articles on trees I included another of my tree creations in this photo. This tree was designed to be a weeping willow.



While these walls and stairs look great in a Halloween display they make a fine entrance way to a forest as well.



## SIMPLE STEPS WITH JUST A HOT KNIFE

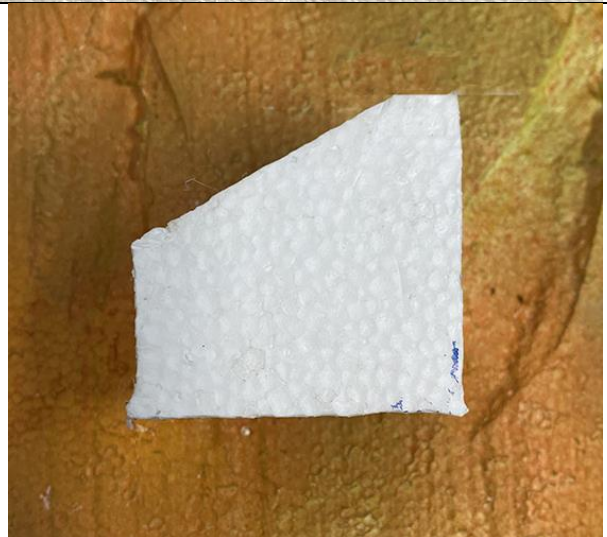


At the beginning of this article I mention a third way to make stairs by just carving them out of a block of Styrofoam. Shown above is just such a set of stairs. These stairs are quick and easy once you figure out the best temperature setting for the Hot Knife and master the technique of making straight and square cuts in the Styrofoam.

As you can see from the picture below I have made dozens of these stairs and have them in a variety of colors and sizes. I will often repaint the stairs to match where I'm placing them in the display. The sides do not always get painted, especially if they are not going to show when in the display. Also note that on the right of the picture below I have stacked two sets of stairs to make a higher staircase. Additionally, there is one stair that has a side attached. This is just another variation.



To make this type of staircase start with a piece of Styrofoam 2 inches thick, 2 inches from back to front and 2 ½ inches high. I have cut a diagonal because it leaves less foam to cut through when actually making the stairs.



Next taking a Sharpie pen draw the layout of the stairs on the side of the foam block.



Now you are ready to cut the stairs. Cut 1 will be made while holding the Hot Knife as shown in the picture on the left below. Aline the knife so the blade is

vertical and with the heat turned down lower the knife into the foam so that you cut the entire width of the step and the depth with one motion—a simple downward press. Then lift the knife straight up.

To make Cut 2 lay the knife blade flat so it is horizontal (see middle picture below). Then press the knife into the foam making the cut with one press. Be very careful you donot cut too far and cut into the top step. Cut 3 will be made holding the knife in the same manner as for the Cut 1 and just press the blade down. Try to keep the blade level so the steps will be flat. To finish the stairs continue alternating horizontal and vertical cuts until you finish the entire stair case.



When you finish cutting the stairs you can paint the stairs any color that will fit in with your display. Below are two photos from my Dickens Village Christmas display from 2022. The photo on the left shows two sets of stairs painted gray and placed side by side to create an entrance to St. Pauls in London. The second photo shows a shorter set of stairs made by cutting two steps from the bottom off the staircase. They were placed in front of the Customs House in the village dockside area.



Thanks for looking. As always if you have any questions or comments you may contact me at [treadwl@comcast.net](mailto:treadwl@comcast.net)