

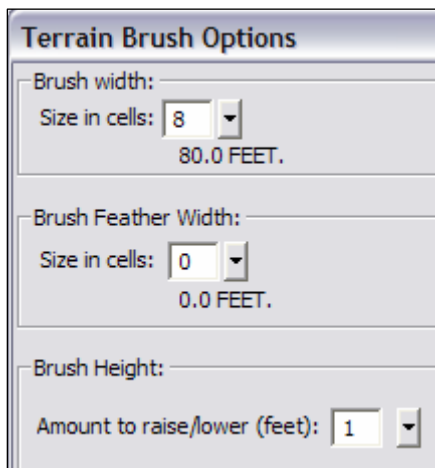
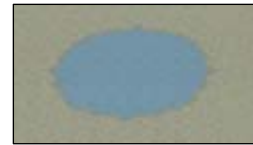
Tutorial 2- Terrain:

- ♦ First, you will learn how to use the mound and lower terrain tools



In Worldbuilder, “Terrain” refers to the shape of the ground. The tools for changing the terrain are found next to the pointer icon. The mound and lower tools are the icons in the picture with a plus or minus symbol above the paintbrush icon. As you may have guessed, the mound tool makes the ground higher, and the lower tool makes the ground lower.

To use the mound tool, click the icon for **Mound**. When you do this, your mouse will become a blue circle like this. To make a mound, simply hold down the mouse and move it back and forth. As you do this, a bulge will appear on the map that may look something like this:



On the right side of your screen, the Terrain Brush Options window should come up. Use these controls while using the mound or lower tools. **Brush width** is how big your blue icon is when using these tools. **Brush Feather Width** is used to make mounds or ditches smoother. If you turn it on, a green ring will

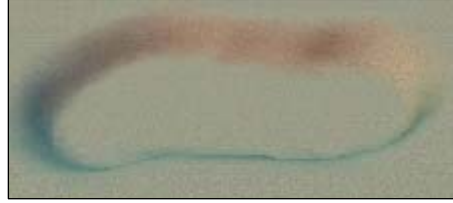
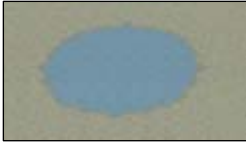


surround your blue circle (shown here) and will make the edges you create while using these tools smoother.

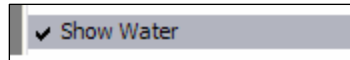
Brush Height determines how fast you will raise or lower the terrain. It is recommended to start with a low value for this and make it bigger if you need to raise or lower more terrain faster. Play around with these settings to get a feel for what each of them does.



Using the **Lower** tool is very similar to using the “mound” tool. Click the appropriate icon, and the blue circle will appear just like when using the “mound” tool. Click and drag the mouse to create a ditch. The same options (Terrain Brush Options) are available for both of these tools.

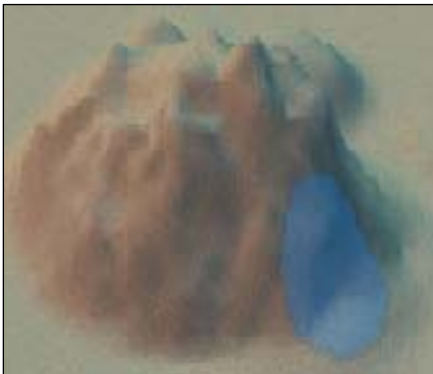


NOTE: If you see water when you make your ditch, ignore it for now. Go to Edit -> Show Water to make the water invisible for now.



◆ How do you smooth the terrain?

You may have found that even with the brush feather enabled, the terrain that you’ve made may not be very smooth. That’s where the **Smooth Height tool** comes into use. To use this tool, click the appropriate icon. This tool does exactly what it says- it smooths the terrain. Click and drag the blue circle over terrain to smooth it.



For example, this would be very useful if I made a mound, but it turned out bumpier than what I wanted. Simply drag the blue circle over the mound for a few seconds to smooth it over.



Feather Brush Options

Brush width:
Size in cells: 130.0 FEET.

Filter Radius
Radius: 2
A large value tends to flatten the map. A small value retains steep sides to smoothed hills.

Feather Rate:
Rate: 2
A high value flattens terrain quickly. A low value requires you to "scrub" with the cursor to achieve the same effect.

“Feather Brush Options” are the options for the smoothing tool. **Brush Width** is the size of the blue circle. **Filter Radius** determines how much this tool should flatten. Use this to keep the shape of terrain that you want to smooth.

Feather Rate is how fast you want to flatten the map. If you choose a low number, you will have to “scrub” the terrain to flatten it. Adjust this option and “filter radius” to make whatever terrain you want.

◆ How do I use the Height Brush Tool?

The **height brush tool** is used to set one area of terrain to a specific height. To use this tool, click the height brush tool icon. The blue circle appears as your pointer again. Click and drag the blue circle to set the terrain under that circle to a specific height.



While using the Height Brush Tool, the Height Brush Options window appears. Use this to control the Height brush tool. **Brush Width** is the size of the blue circle and controls how much terrain you are changing. **Brush Feather Width** controls the optional green ring around the blue circle. If the feather option is turned on, the terrain in the green area will be smoothed to form a diagonal between the raised (or lowered area) and original terrain. This can form a volcano-shaped area of terrain.

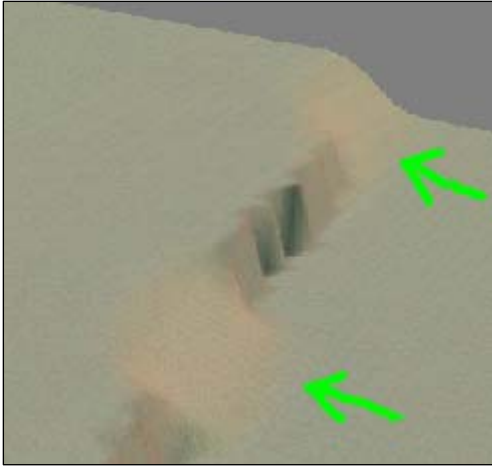
Height Brush Options

Brush Width:
Size in cells: 90.0 FEET.

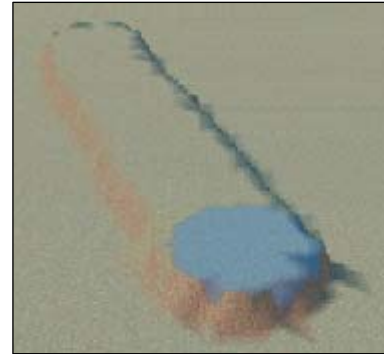
Brush Feather Width:
Size in cells: 35 FT.

Brush Height:
Height in feet: 6.00






Using the Terrain Height Tool, you can create a line of raised terrain (shown below). You can combine tools to form complex terrains, like this cliff with two ramps (shown to the left). First, use the terrain height tool to raise half of the map up about 100 feet. Then, use the smoothing tool to smooth two parts of the cliff to form two ramps.



◆ How do I use the Lock Angle Tool?

Click the **Lock Angle Button**  to use this tool. Lock angle is used when you want to make a terrain feature that lines up with the map's edges. When you use this tool, the cursor can only be moved in eight directions: parallel to the map's edges, or diagonal to them. When you click, it locks in that spot and only allows you to move outwards from there. Here is an example of all eight directions you can move while using lock angle.



♦ How do I use the Terrain Copy Tool?

The **Terrain Copy Tool** is a very useful tool that allows you to copy a terrain feature on a map and replicate it somewhere else. When you click the Terrain Copy Tool icon, the options window shows up, as shown to the right. This window has all of the options you will need to use this tool. There are two modes to this tool: **Selection Mode** and **Copy Mode**. Selection mode chooses what area of terrain you would like copied, and copy mode choose how and where you would like to place the copy. If you set your settings like those shown, you may select terrain by dragging the mouse and a blue square will appear over the selected terrain. This is **Drag Select**. When you release the mouse, the selected terrain turns white.



Copy Terrain Options

☒ Selection mode

Selection options

☒ Drag select

☐ Brush select

Brush size: 1

☒ Add to selection

☐ Remove from selection

Clear selection

☐ Copy mode

Copy options

Flip:

☐ Vertically

☐ Horizontally

Rotate:

☒ 0°

☐ 90°

☐ 180°

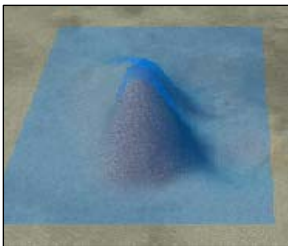
☐ 270°

Copy:

☒ Terrain height

☒ Terrain texture

☒ Passability



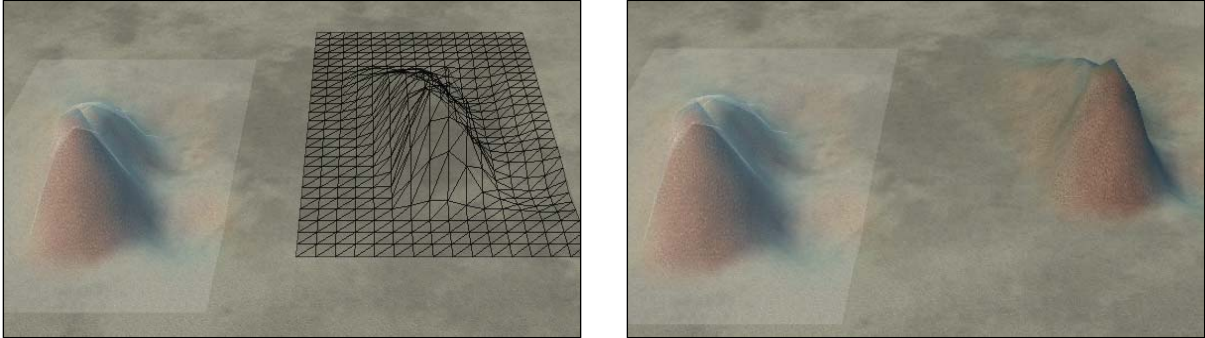
You may add terrain to your selection again using drag select, or you could use the **Brush Select** option. This allows you to “paint” with a brush the areas that you want to be selected, and you may adjust the **Brush Size** depending on your needs.



Another option is to **Remove From Selection**. When this option is selected, the terrain you choose will be removed from the terrain to be copied, instead of added like when the **Add to Selection** option is chosen.



Now that you've chosen the terrain that you want copied, you can copy it by selecting Copy Mode. When you do this, the terrain is "shadowed" on the map where you will place it, and if you click, the terrain is put right as it is shown where you clicked.

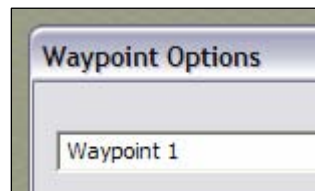


Other options for Copy Mode include **Flip** and **Rotate**. These orientate the terrain to be pasted. They are quite simple, so you should try them out. In addition, you may choose to **Copy** any combination of terrain height, texture, and passability (Texture and passability are explained in WB3).

TIP: When using this tool, watch out to make sure that you are not pasting over the selection to be copied. Worldbuilder doesn't remember what was there, so you will change what is being copied if you paste over the copy selection.



TIP: While laying out a map and its terrain features, it may be helpful to use waypoints. You can place waypoints anywhere on a map, and name them whatever you want. To place a waypoint, click the waypoint icon and click the ground where you want the waypoint (see above). When you select the waypoint, you can type in any name you want in the options window. You will need to know how to use waypoints to finish a map, and also when using scripts, so it's a good idea to get familiar with them.



TIP: Beginner mappers may have trouble visualizing how big a map is in relation to units. It may be helpful if you use the object window (discussed in Tutorial 1) to place a building on the terrain so you get an idea of how big to make terrain features.



To progress to the next tutorial:

- ✓ Create a new map named “Tutorial 2”.
- ✓ Make the map 150x200 feet.
- ✓ Before you do the other things (below), lay out the terrain features of the next three requirements with 10-15 waypoints.
- ✓ Create a mountain range in the top half of the map (Use the “mound tool”). There should be 5-10 mountain in your mountain range. Also, your mountains should not be too bumpy or too smooth. See page 2 for examples of both of these.
- ✓ Use the Height Brush Tool and set brush width to 2, set brush feather width to 0, and set brush height to 16. In the center of the map, use these settings to write your name or nickname into the terrain. Make sure it is legible!
- ✓ Make a cliff along the bottom edge of the map. Make 3 ramps down from this cliff.

- ✓ Go to the “Idea Bucket”. Choose two maps that don’t have any special tasks, such as scripts or water. Make the terrain (mountains and such) for these maps. Name these maps “Tutorial 2 Map 1” and “Tutorial 2 Map 2”. Be sure to make these maps big enough. It is recommended that you use waypoints to “lay out” the map before making the terrain.

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