

Please Note: If you're new to Revit, you may be interested in my "[Beginner's Guide to Revit Architecture](#)" **84 part video tutorial training course**

. The course is 100% free with no catches or exclusions. You don't even need to sign-up. Just enjoy the course and drop me line if you found it useful. The [full course itinerary can be viewed here](#)

Revit Architecture is not just about buildings! It's also about the external environment that your building is part of. Revit provides many tools that allow you to model this environment, thus letting you show your design in context.

In this tutorial, we will use Revit's **Point tool** to create a **topographical surface**. Please note that there are various methods for creating topographical surfaces within Revit, depending on what level of information you have to start with, how accurate you need your surface to be, etc. We will look at some of the other methods in other tutorials.

So let's just dive in and create a basic topographical ("**topo**" for short) surface.

Start Revit with a new, blank Project File. For the purposes of this tutorial, I am going to be using millimetres for the Units. Depending on your regional settings, you may have to convert the dimensions shown here.

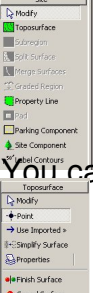
Your new Project File should contain default View called Site:-



Make this View active by double-clicking on it. We are going to create our basic surface in this View. You can create topographical surfaces in any plan view- but by default Topography is NOT displayed in any plan view except Site . For example, if we look at the View Properties>Visibility / Graphics Overrides for the default view “Level 1”:-

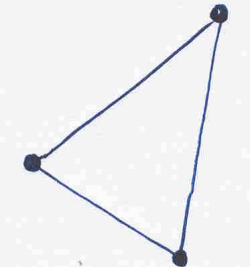
Topography: Creating a basic Topo Surface

When in a Topography, switch back to the "Site" view, and make sure that the "Site" Design Bar is

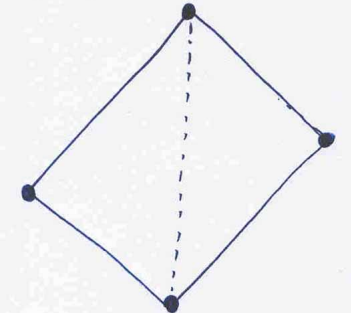


You can now select "Toposurface" which will take us into Sketch Mode:-

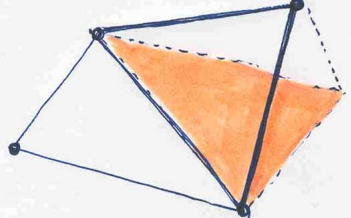
When in the Sketch Mode, you can create a topographical surface by defining a set of points. These points are connected by lines to form a mesh of triangles.



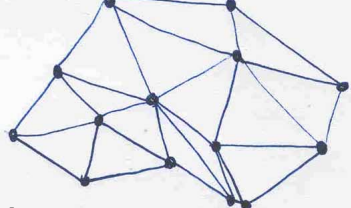
Each triangle is a face of the topographical surface. Review works as a flat or a slope face, like the



When you create a surface, it will be a flat surface. But you can create a surface for multiple heights, by creating a surface with different heights at different points.



Now this is just 3 faces. What if we added more faces? And we varied the heights of the points



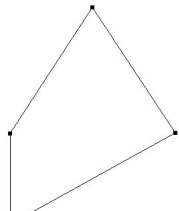
Now the surface is a mesh. The larger the number of points, the more detailed the surface. We can also create a surface with a specific height at a specific point. You can create a surface with a specific height at a specific point.



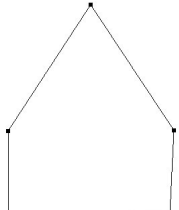
Now we can create a surface with a specific height at a specific point. We can also create a surface with a specific height at a specific point. We can also create a surface with a specific height at a specific point.

Topography: Creating a basic Topo Surface

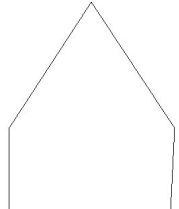
Hit the Finish Surface button in the Sketch Mode, with the points shown again. As we did, the bottom half of the surface (the faces) in the surface (Model) for clarity, the two images below show



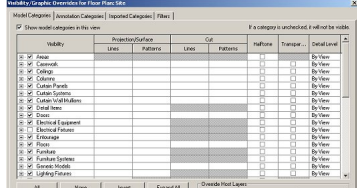
and the second point....



Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

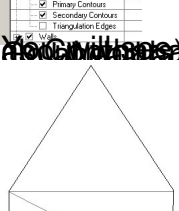


Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

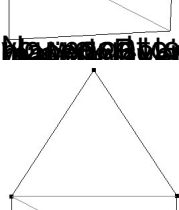


Scroll down to Topography and expand it so that you can see all of the sub-categories within

Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface



Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface



Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

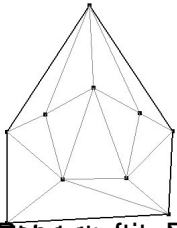
Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

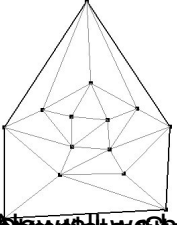
Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface

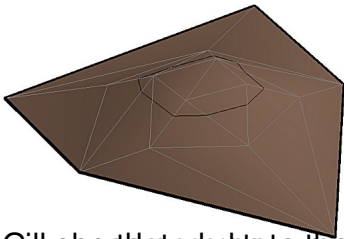
Hit the Finish Surface button in this surface proper Toposurface. Hit the Finish Surface



Now add four points (or a square shape) to the centre of our "hill".



Now click on "Finish Surface" on the Site Design Bar and our surface will be similar to this one.



All elevations are treated as if by the same horizontal plane and surface underneath. You