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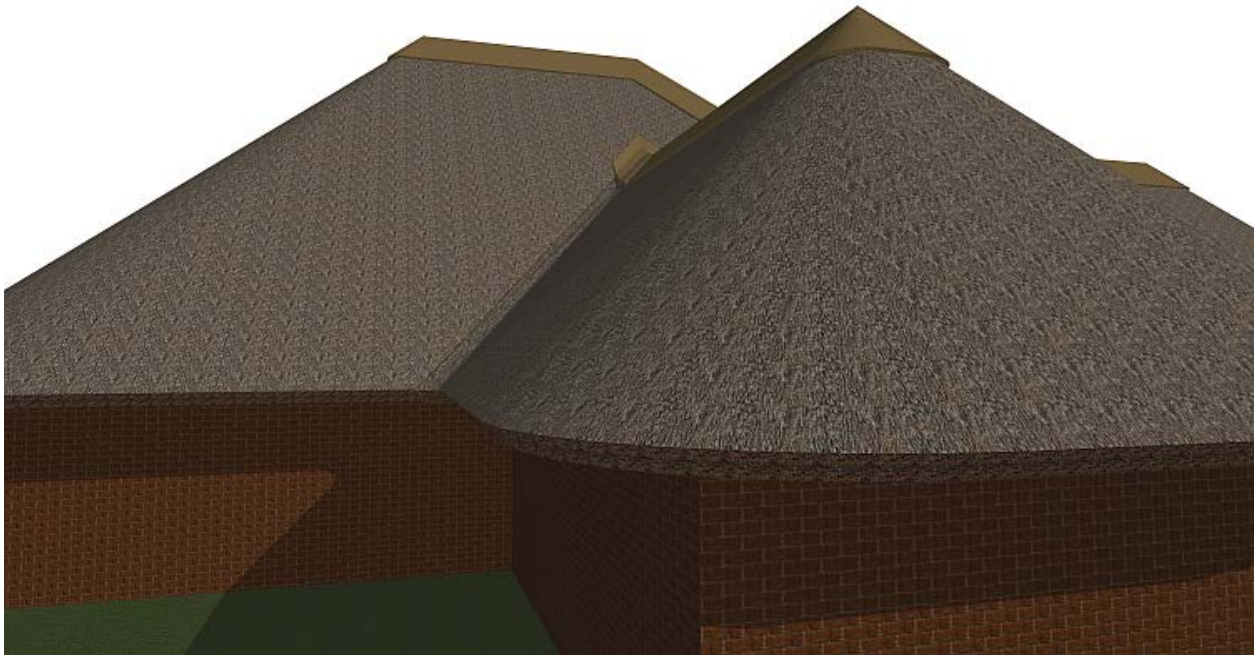
I. Tutorial: Create Thatched roof in ArchiCad

6 November 2012



A. Some years back I did this by modeling the roof's top contours as required using the Mesh tool (shaping the top surface of the required roof). Then I used the "Mesh to Roof" tool. Here is how to do this:

   I created and save this exersize in an ArchiCad 16 solo project file and the accompanying ZIP file holds the ArchiCad project file and some texture files for different thatches.

   To learn the prosedure to create a thatch roof like the image above, you simply

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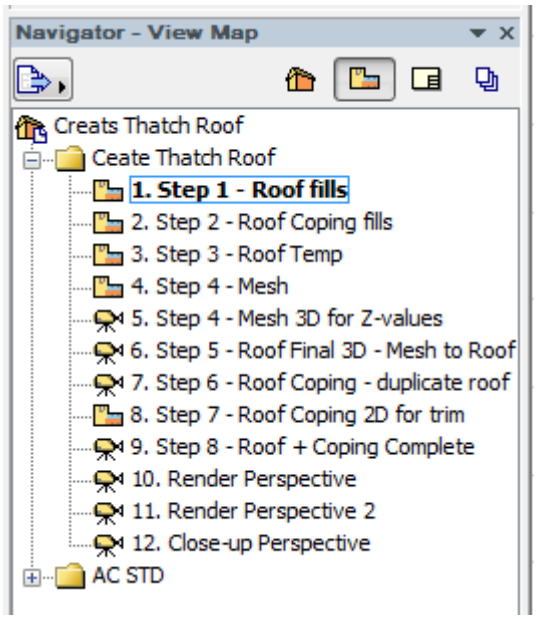
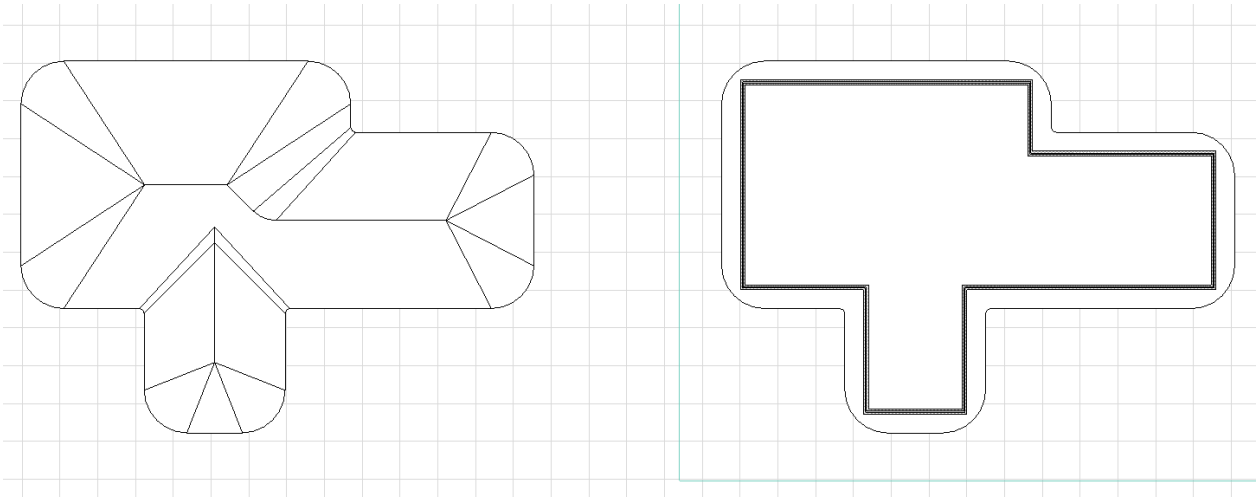
a) open the ArchiCad project and use the 12 x saved views Step 1 to 8 in the View Map in the Navigator.



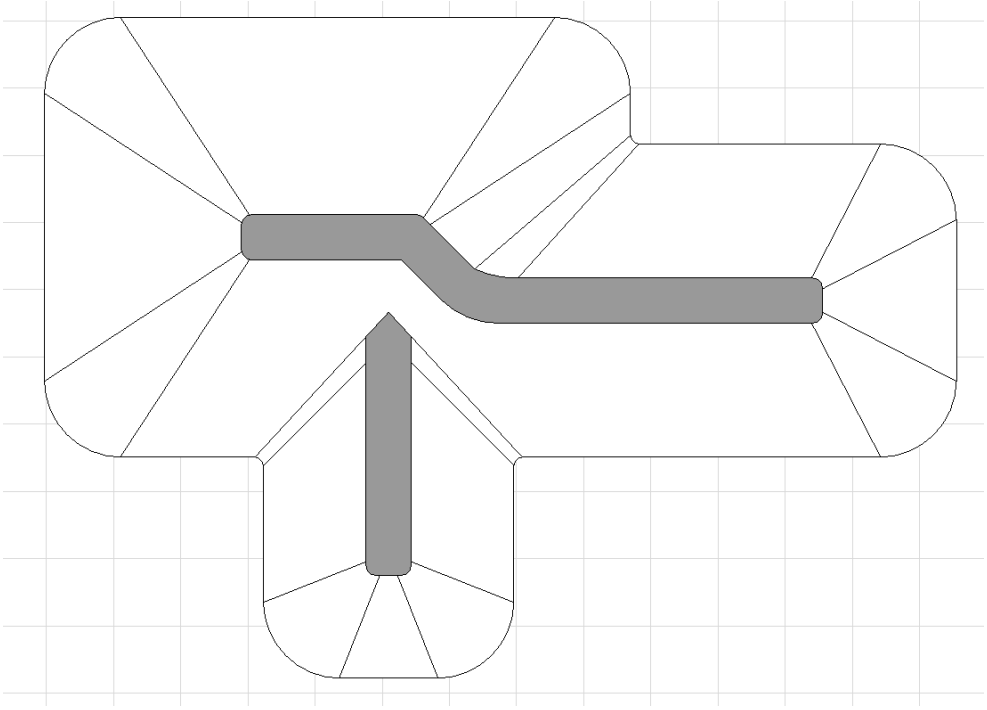
b) The name of each saved view is a hint of what action takes place at this step.
Inspect the drawing elements as you move through the views and the process will become clear.

The following is some basic notes for each step:

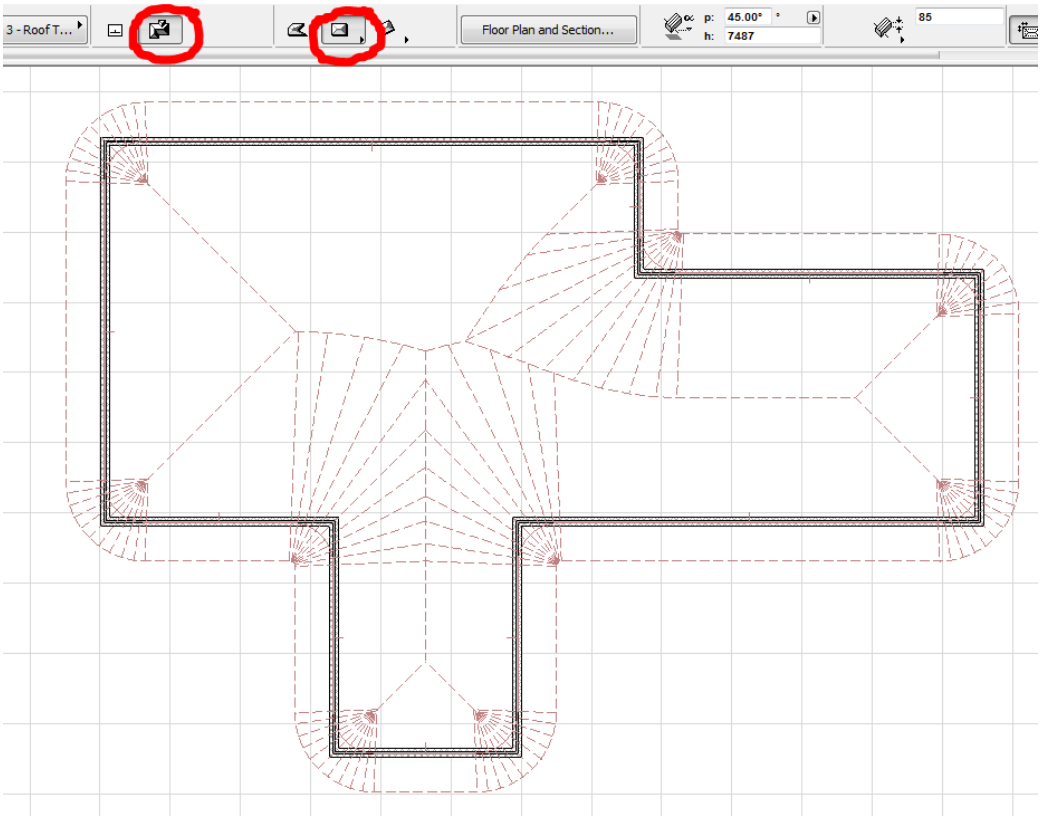
1. **Step 1 - Roof fills**
Plan to right: Trace around walls with fill tool > offset for roof overhang > fillet roof corners
Plan to Left: Copy fill to left > Split fill for roof “panels / segments” as shown on left



2. **Step 2 - Roof Coping fills**
   Draw outline of Roof coping wit fill tool.



3. **Step 3 - Roof Temp**
   Set up desired toof settings
   Use “Complex Roor” and Hip-&-Valley roof geometry and draw standard roof with Magic Wand tool
   Move this temporary reference roof aside to above the plan.



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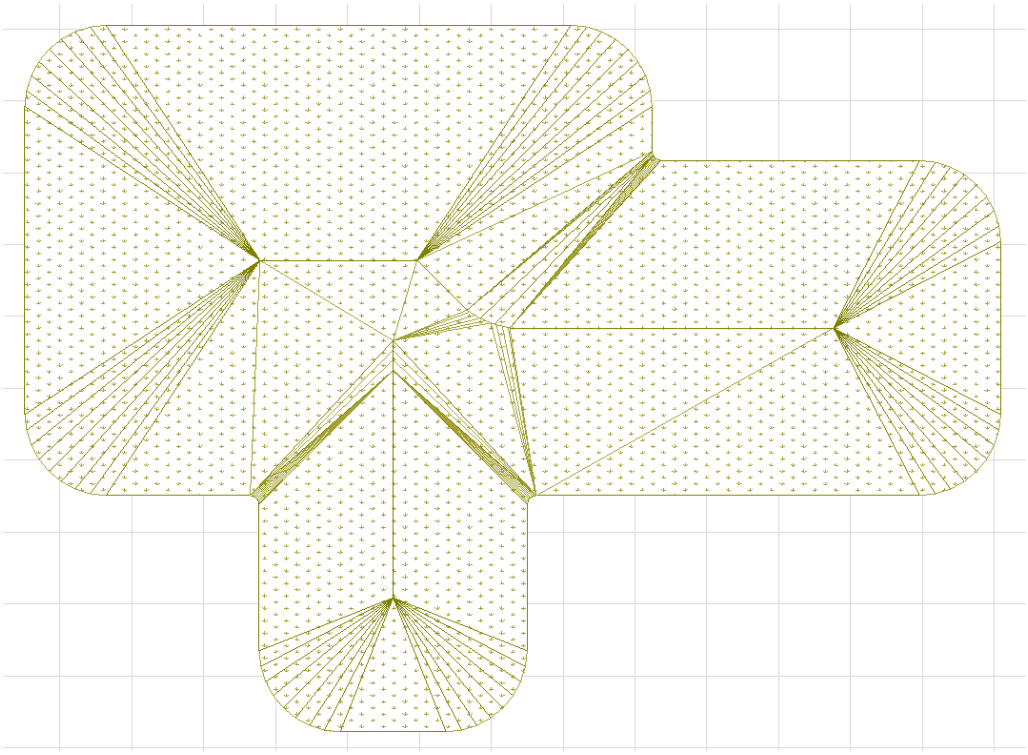
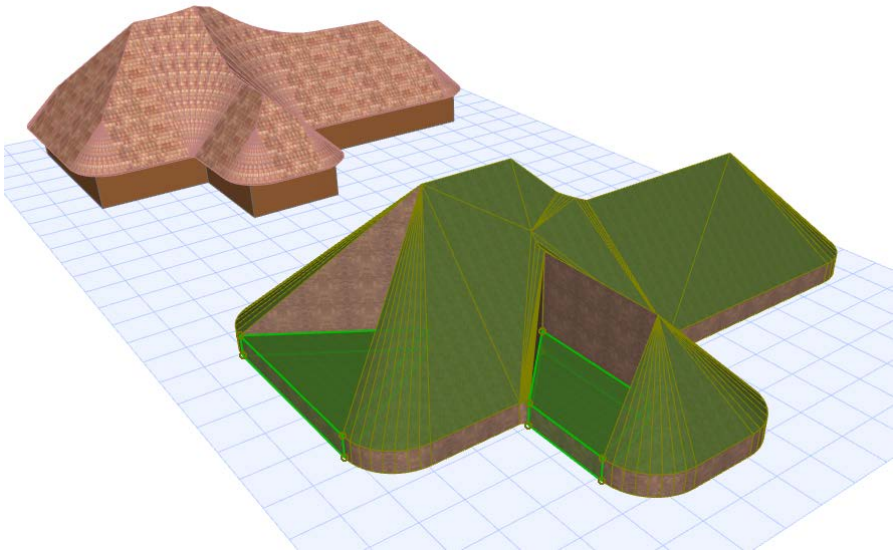
4. **Step 4 – Mesh**
   Use the Magic Wand with the Mesh tool on desired settings and trace roof segments on: Step 1, Plan to Left: roof fills “panels / segments” as shown above.
   Split resulting Meshes of corner panels / segments into smaller segments for best resulting roof shape as shown below.

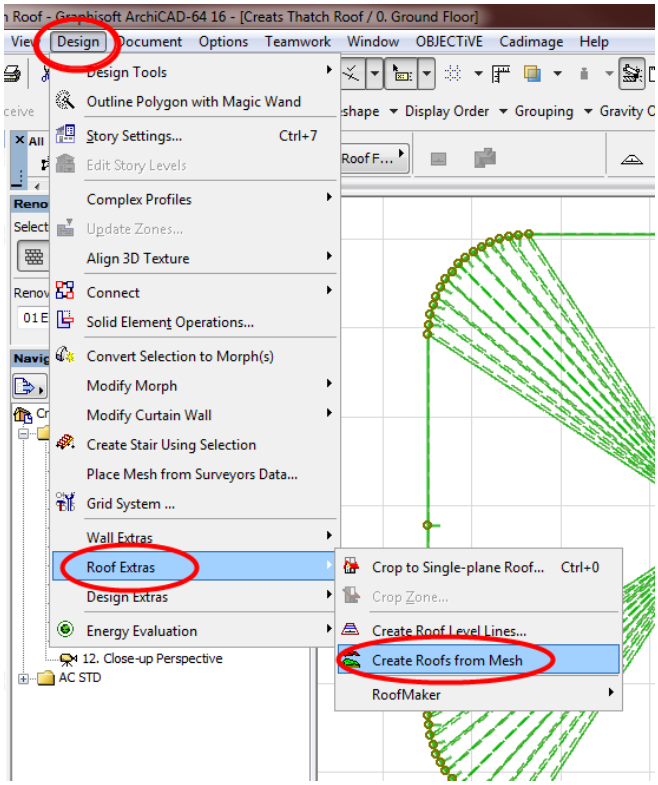


5. **Step 4 - Mesh 3D for Z-values**
   Show both Temporary roof (back) & Meshes (front) In 3D-window
   Now select all Meshes & change Z-vallue or position of apex roof points by selecting the Z-value tool on the editing pallet and clicking on the matching point on the temporary roof

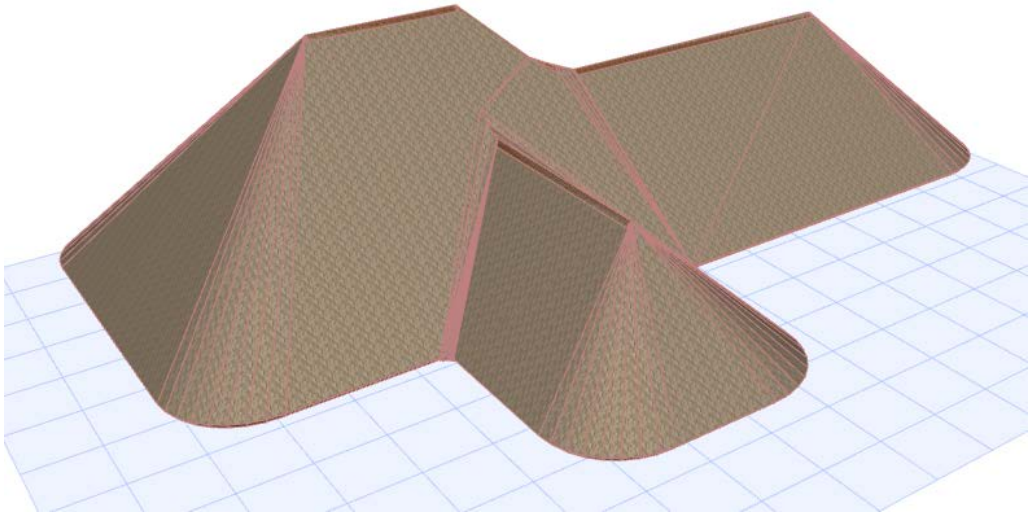


6. **Step 5 - Roof Final 3D - Mesh to Roof**

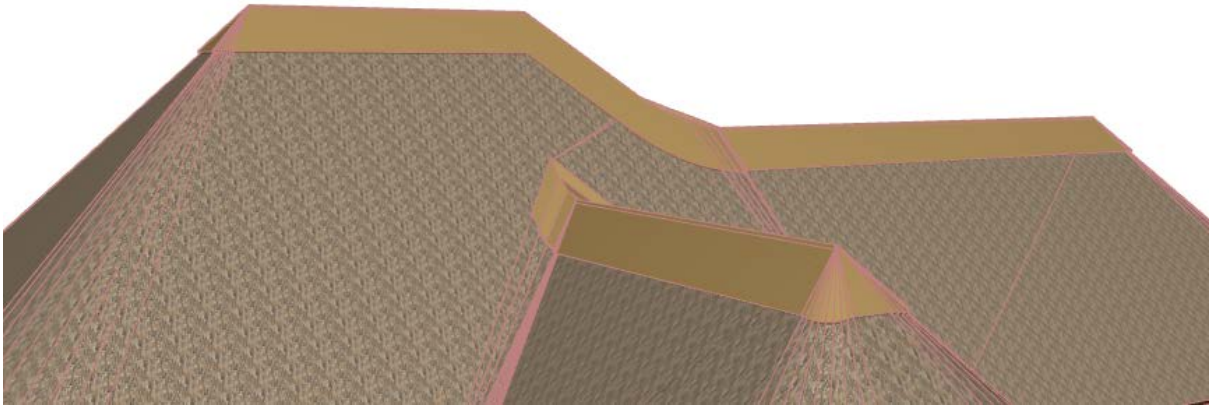
Go back to Plan “View 4. Step 4 – Mesh”, Check that the Roof tool settings are correct then select the roof meshes and activate the Design > Roof Extras > Create Roofs from Mesh tool from the menu



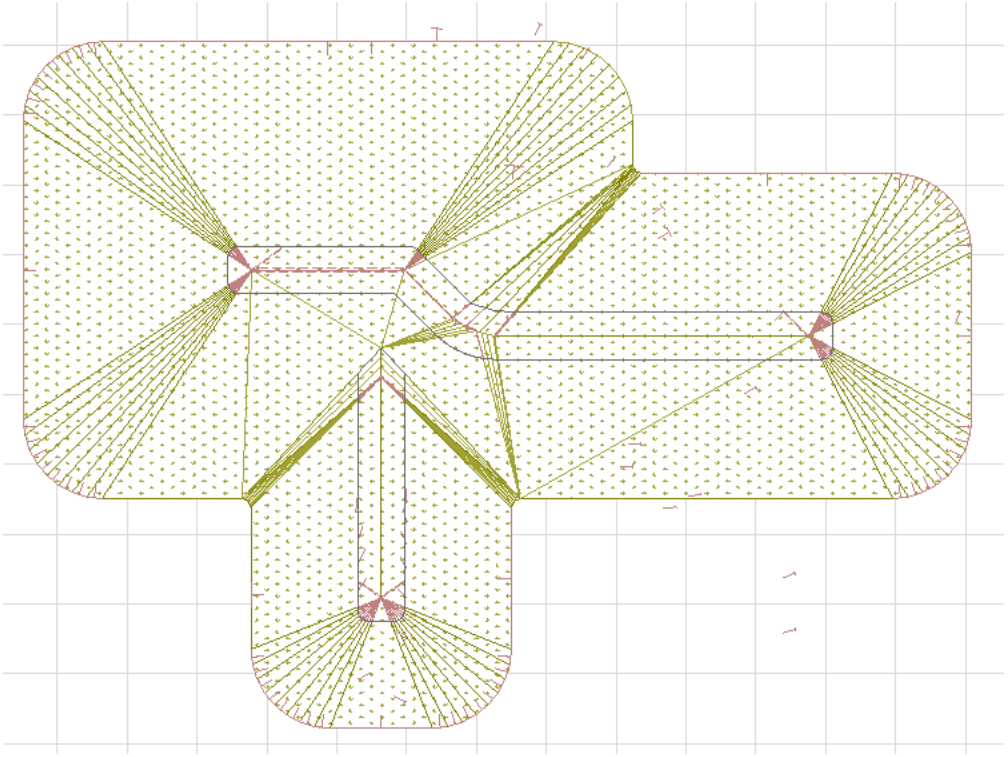
Check the result in the 3D Window and clean up any possible unnecessary segments or incorrect joints



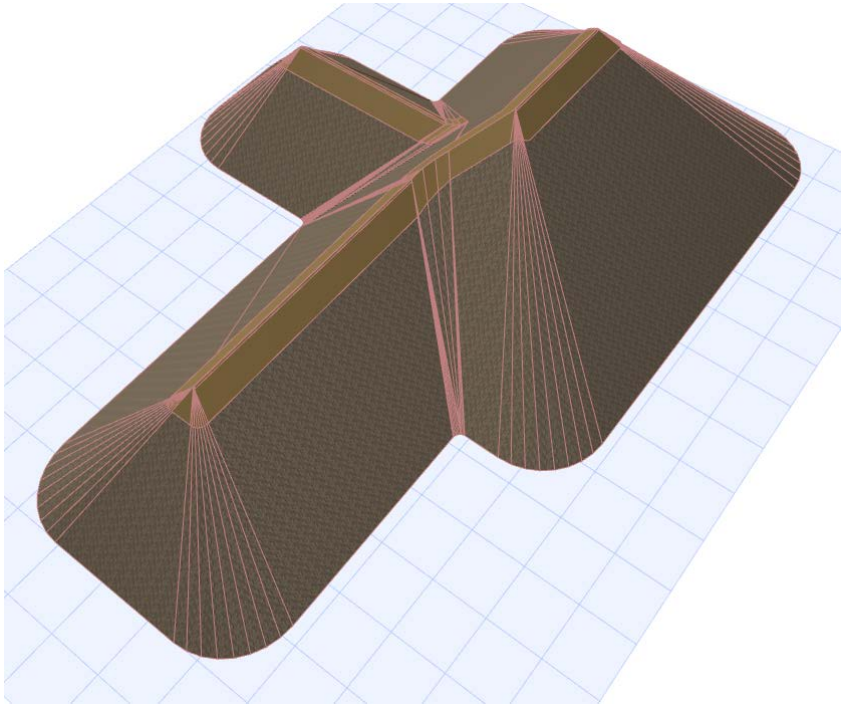
7. **Step 6 - Roof Coping - duplicate roof**
   Select the complete roof > Drag & Elevate by 70mm a Copy of the roof and moove to another roof layer



8. **Step 7 - Roof Coping 2D for trim**
   Now go back to the Plan View to edit & Trim all Second roof panels / segments untill only the “Roof Coping” is left. Change the Materials according to your design



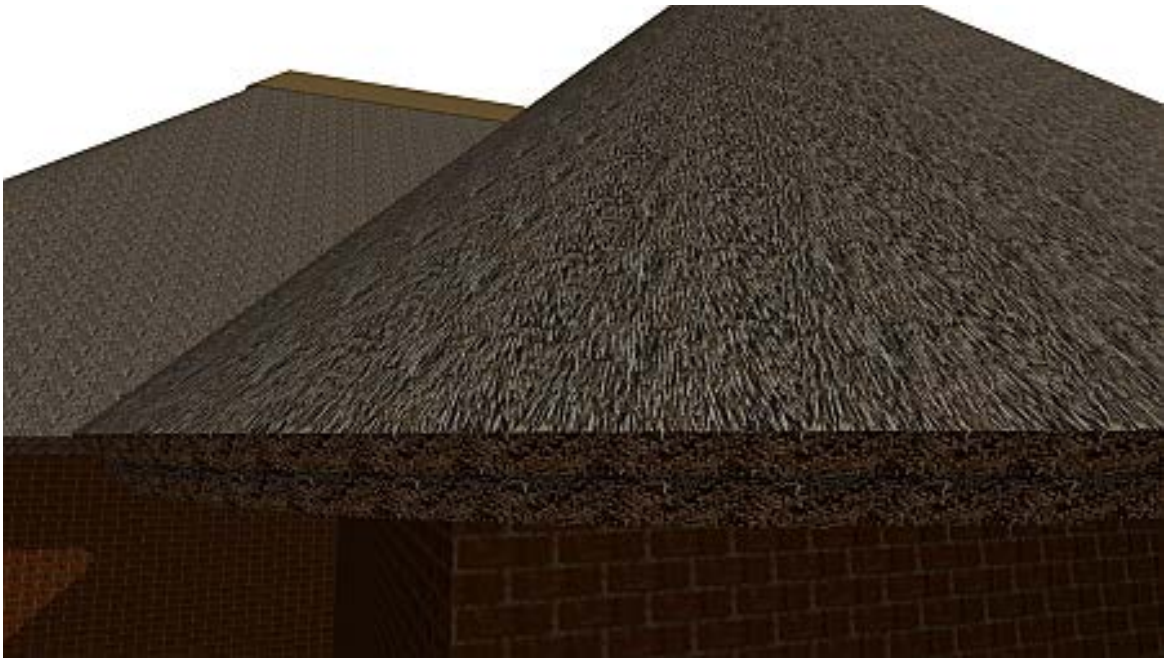
9. **Step 8 - Roof + Coping Complete**
   Inspect the results and edit where still needed



10. **Render Perspective**
    Overview render

11. **Render Perspective 2**
    Shaded render

12. **Close-up Perspective**
    Detail render shows Top & End of Thatch surface materials assigned to roof elements for realistic results.



This workflow does take some time to complete, but it is a very achievable custom modelling exersize that delivers a very satisfying design that is optomized for automated documentation.

I trust that this tutorial will help you to achieve your intended design. Let me know if you have questions.

Regards

Francois Swanepoel

II. Additional info

B. Here is a second method you can use which could also work by using the Shell Tool: this video shows it the best: www.youtube.com/watch?v=fpCW6DoZzR0
(not a thatch in this video but applying the tools & technique is what is important here)

C. Read through these threads on ArchiCad-Talk forum for some snippets of tips to help you with this too: www.archicadwiki.com/results.html?q=roof%20thatch

D. While I also have these links in front of me for someone else: If you just learn apply these two render technique videos, you will be more than satisfied with your general renders without having to use Artlantis etc.

- www.youtube.com/watch?v=Qi36NU0vOPk
- www.youtube.com/watch?v=8cDH3tZrkXI

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