Modeling a hat

Soft surfaces such as that of a hat can be created as c-meshes. Generating the exact form is an “art” and we do not have many instructions to offer. Here is how we did the example below:

1. We started with eight concentric hexagons with their sizes corresponding to profiles at different horizontal positions of the hat. We then moved them vertically to place them in their positions.

2. Working on the top view, we slightly moved points of the hexagon to “disturb” the regularity of the hexagon.

3. Working on a front and right view, we moved points up and down to “bend” the hexagons.

4. After selecting the hexagons in the proper order, we generated a c-mesh.

5. We generated the ribbon by sweeping a slightly curved source shape about a closed curve, roughly corresponding to the shape of the hat.