DESIGN III

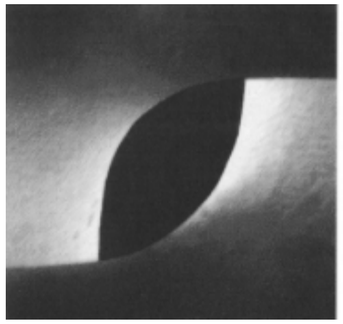
Erwin Hauer

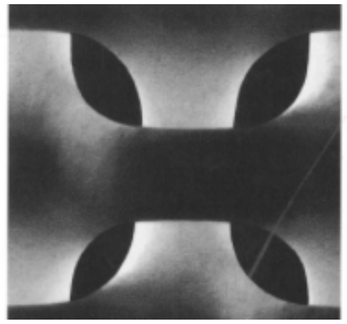
Clark (Peiyi) Hou

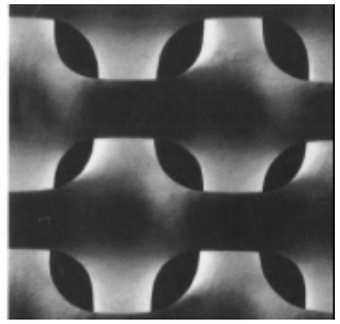
Erwin Hauer (born 1926) is an Austrian-born American sculptor who studied first at Vienna's Academy of Applied Arts and later under Josef Albers at Yale.

Hauer was an early proponent of Modular Constructivism. He was especially known for his minimalist, repetitive pieces in the 1950s and 1960s.

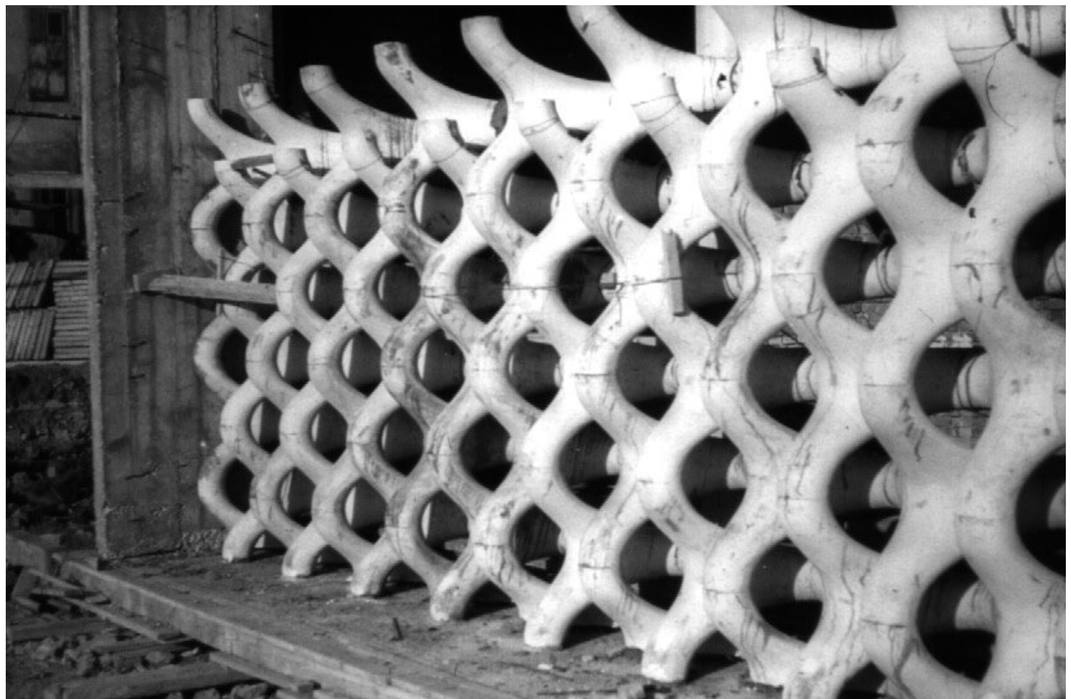
Design 3 is one of the Hauer's screen design, It consists of two separate continua that exist within each other without ever touching, and maintain their distance but interact and complement each other in the creation of a greater entity.

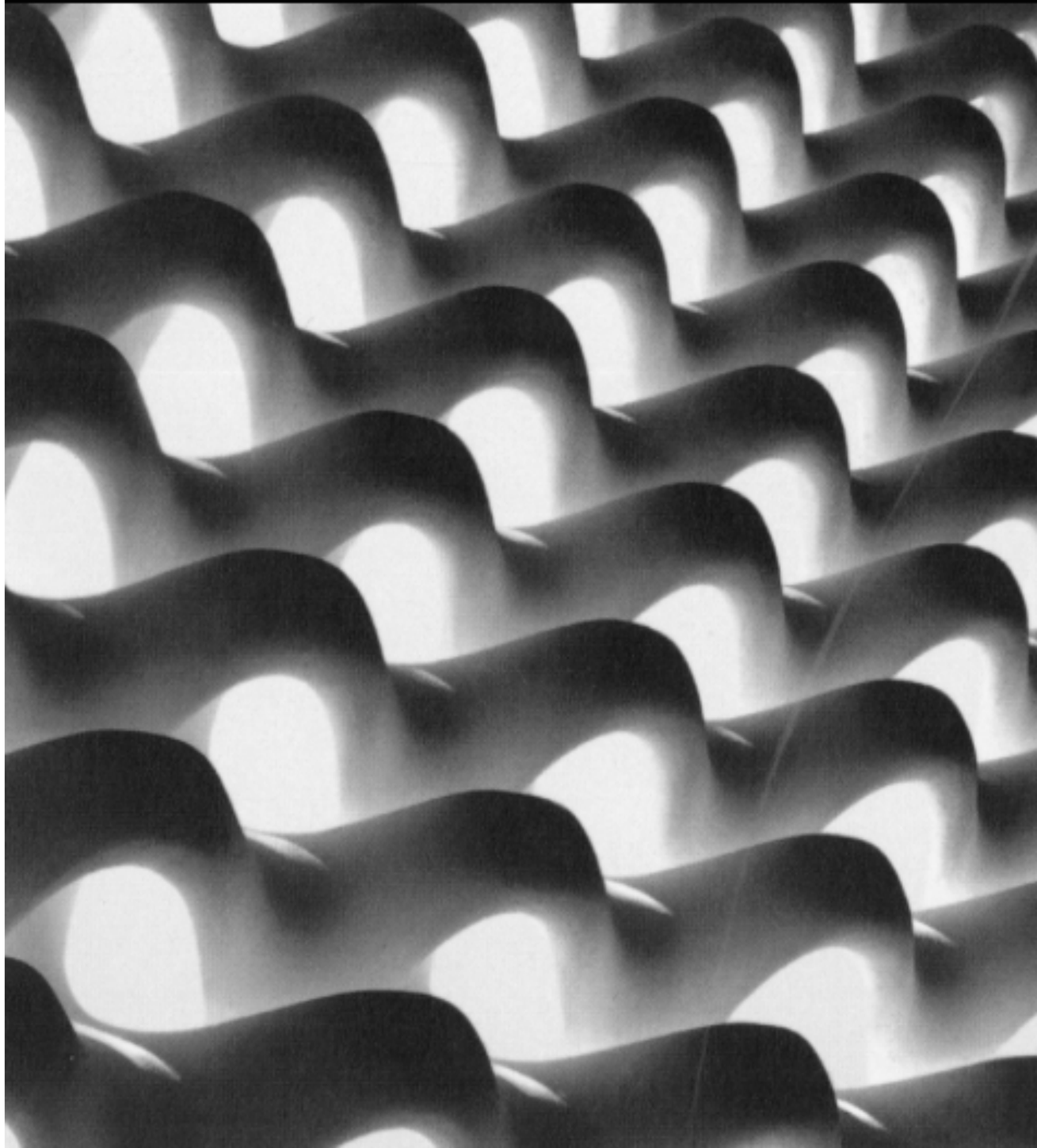


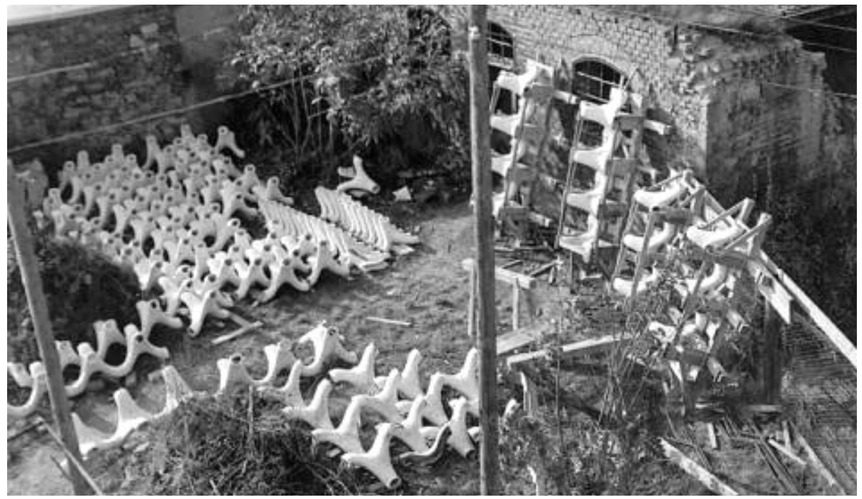




light-diffusing wall in church in Liesing, **Vienna, Austria, 1952**







Cast Stone

50cm Module

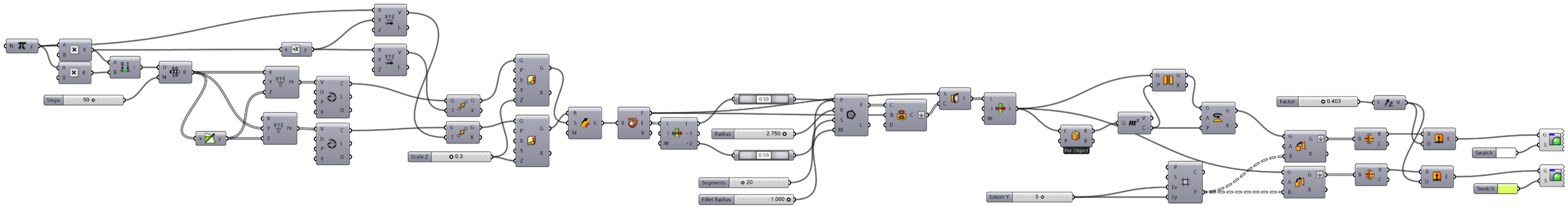
" Each Module was produced as a split, hollow shell, using plaster molds for the lay-up of the cast stone grout, composed of white Portland cement and granular dolomite aggregate.

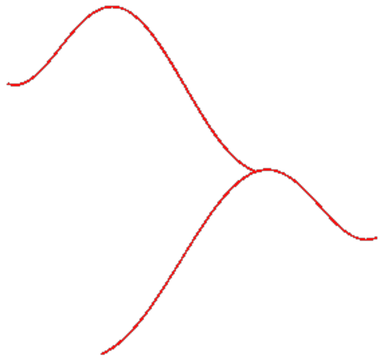
These hollow shells were then placed three at a time into wooden jigs, forming a continuous cavity into which undulating reinforcing rods were placed and high-strength cement were poured.

These subassemblies were then placed, aligned, and interconnected at the installation site with the help of sturdy workmen. "

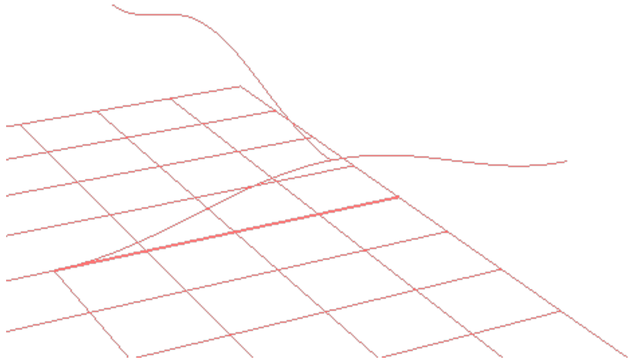
—— **Erwin Hauer Continua : Architectural Screens and Walls**

Grasshopper PROCESS

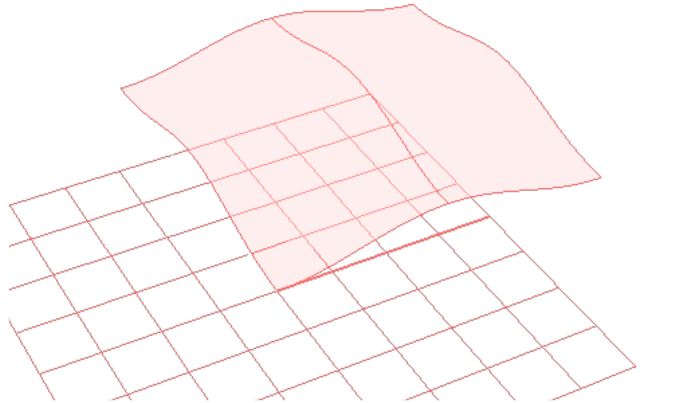




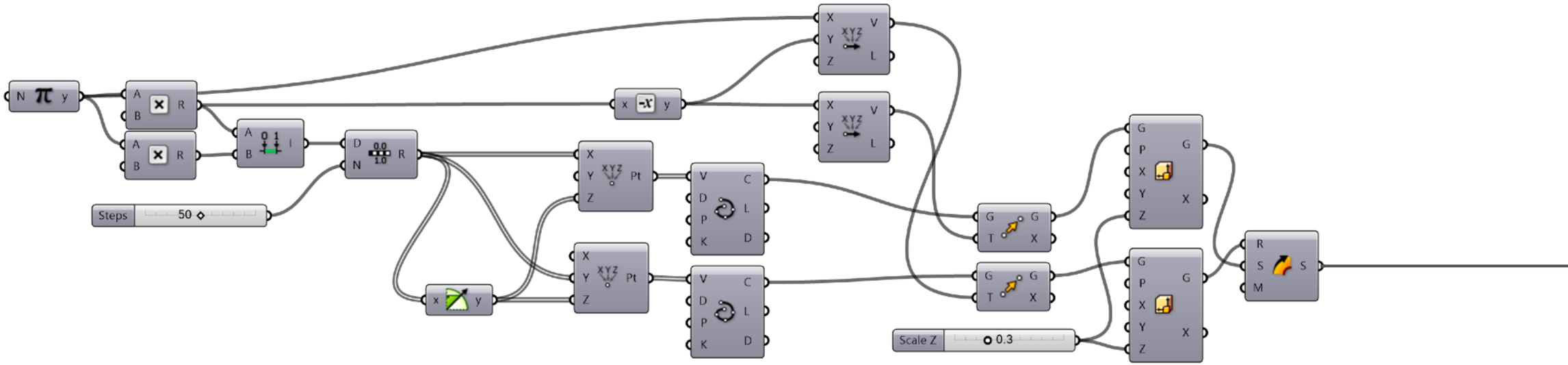
Create Sine Curves
whose ends are tangent to ground

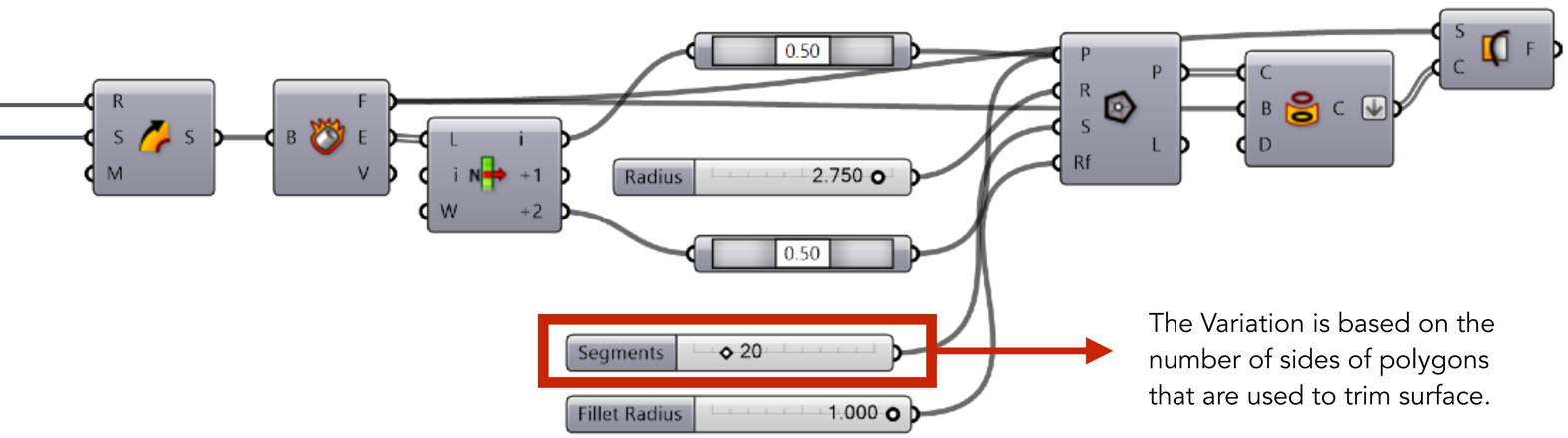


Scale on Z axis

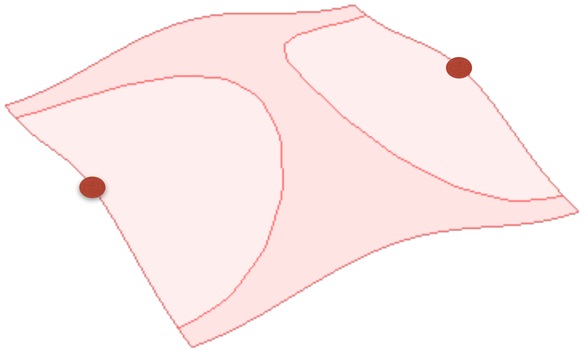


Sweep

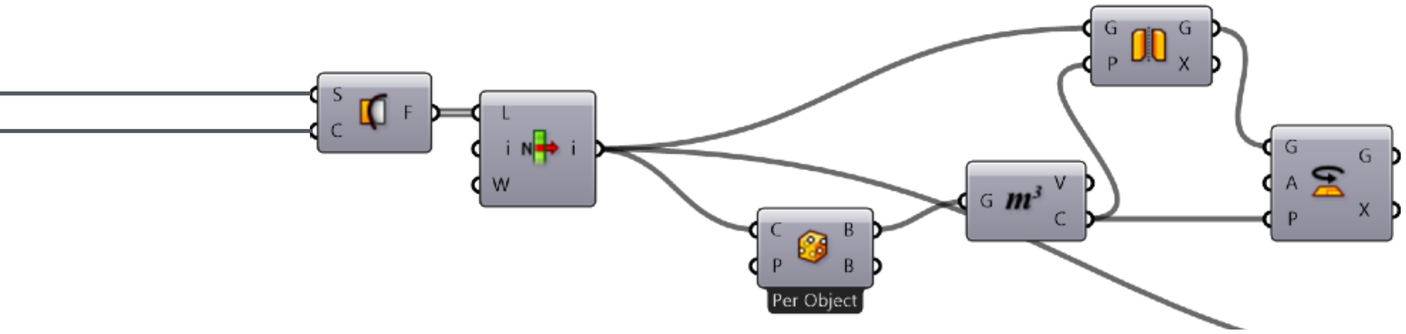


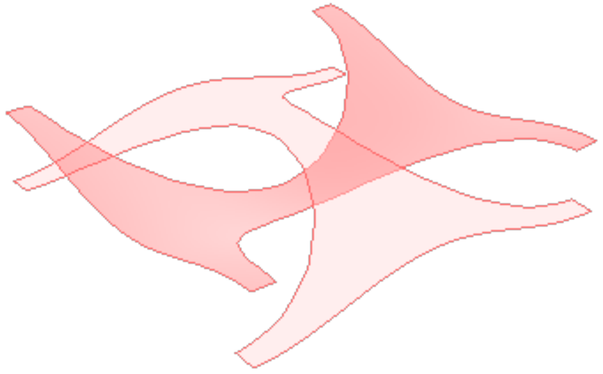


The Variation is based on the number of sides of polygons that are used to trim surface.

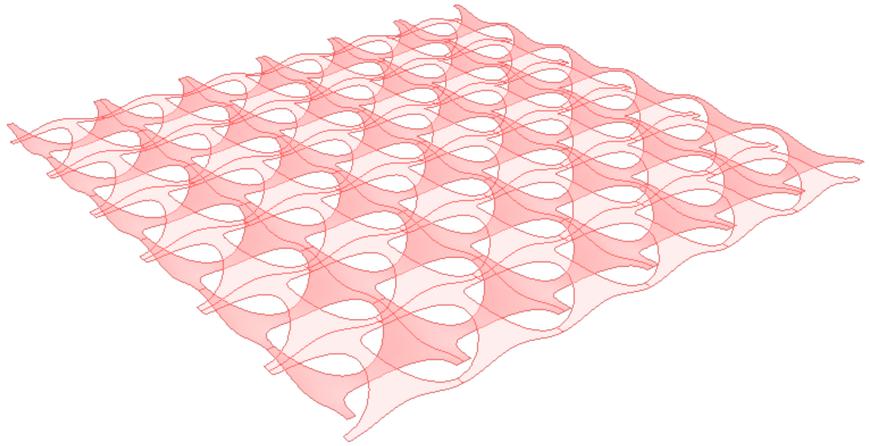


Split surface with polygon centered on the midpoint of two opposite edges

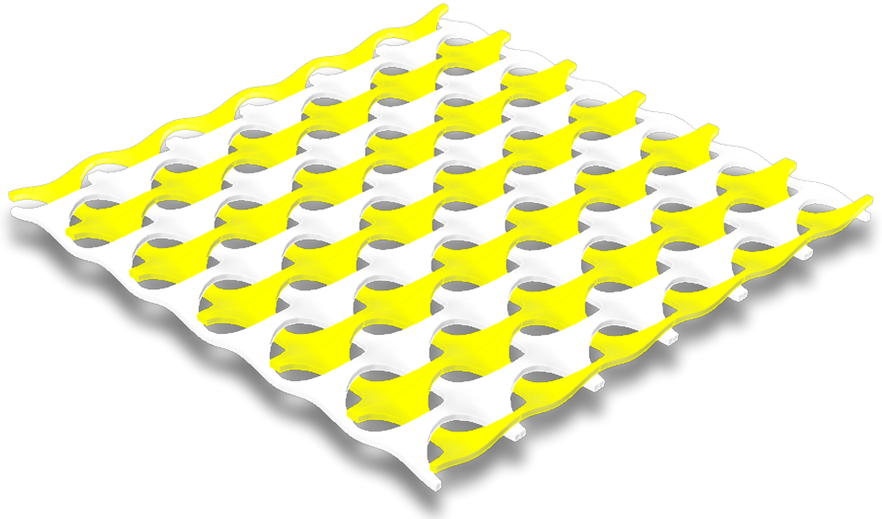




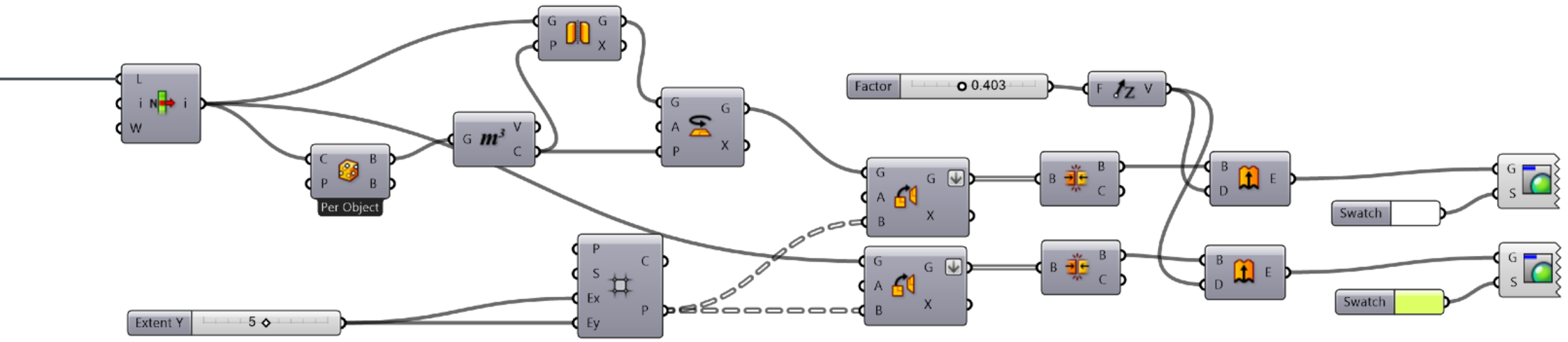
Pick out trimmed surface
Flip and rotate for 90 degrees



Orient both surface onto a rectangular grid

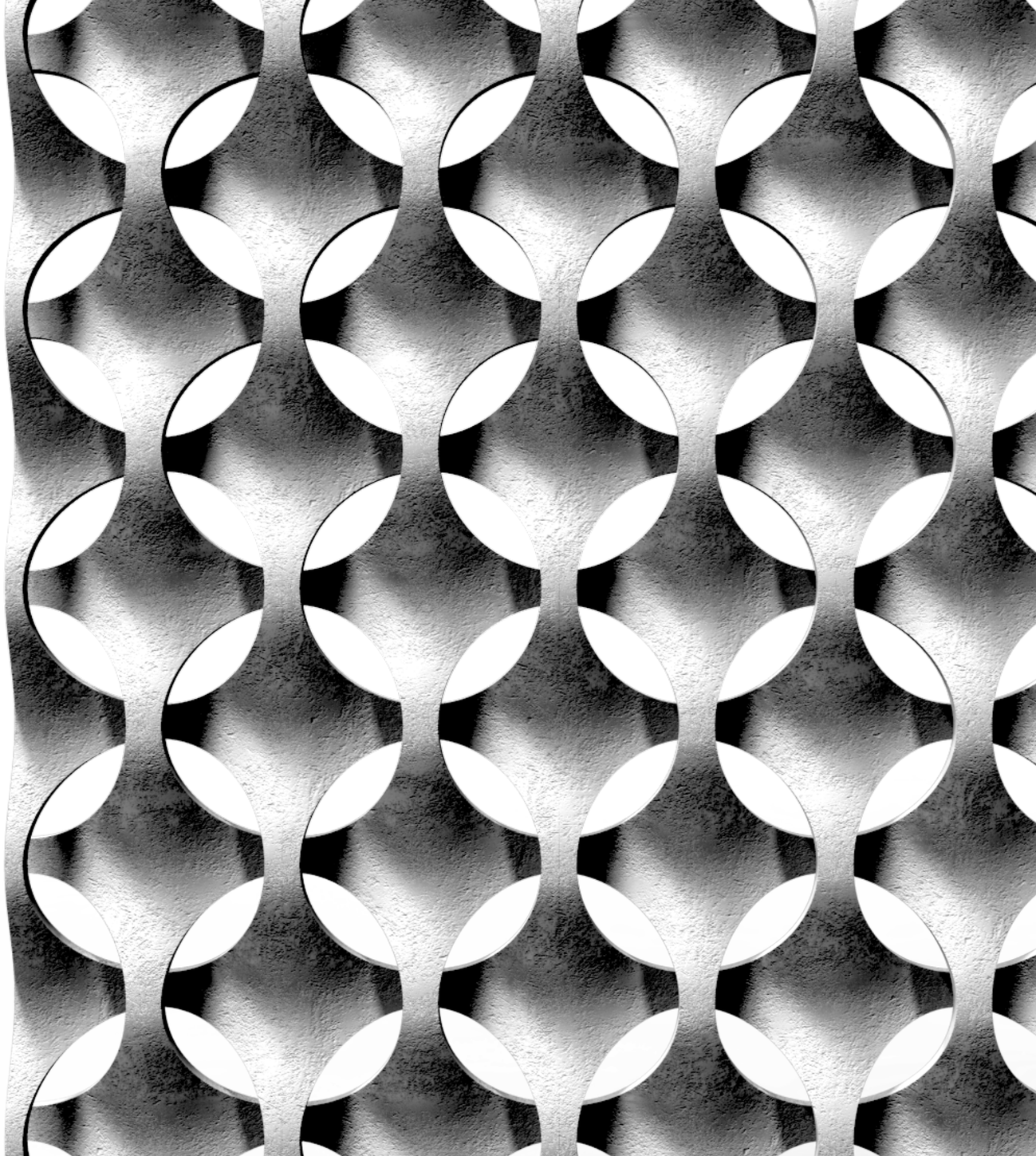


Join surfaces and extrude



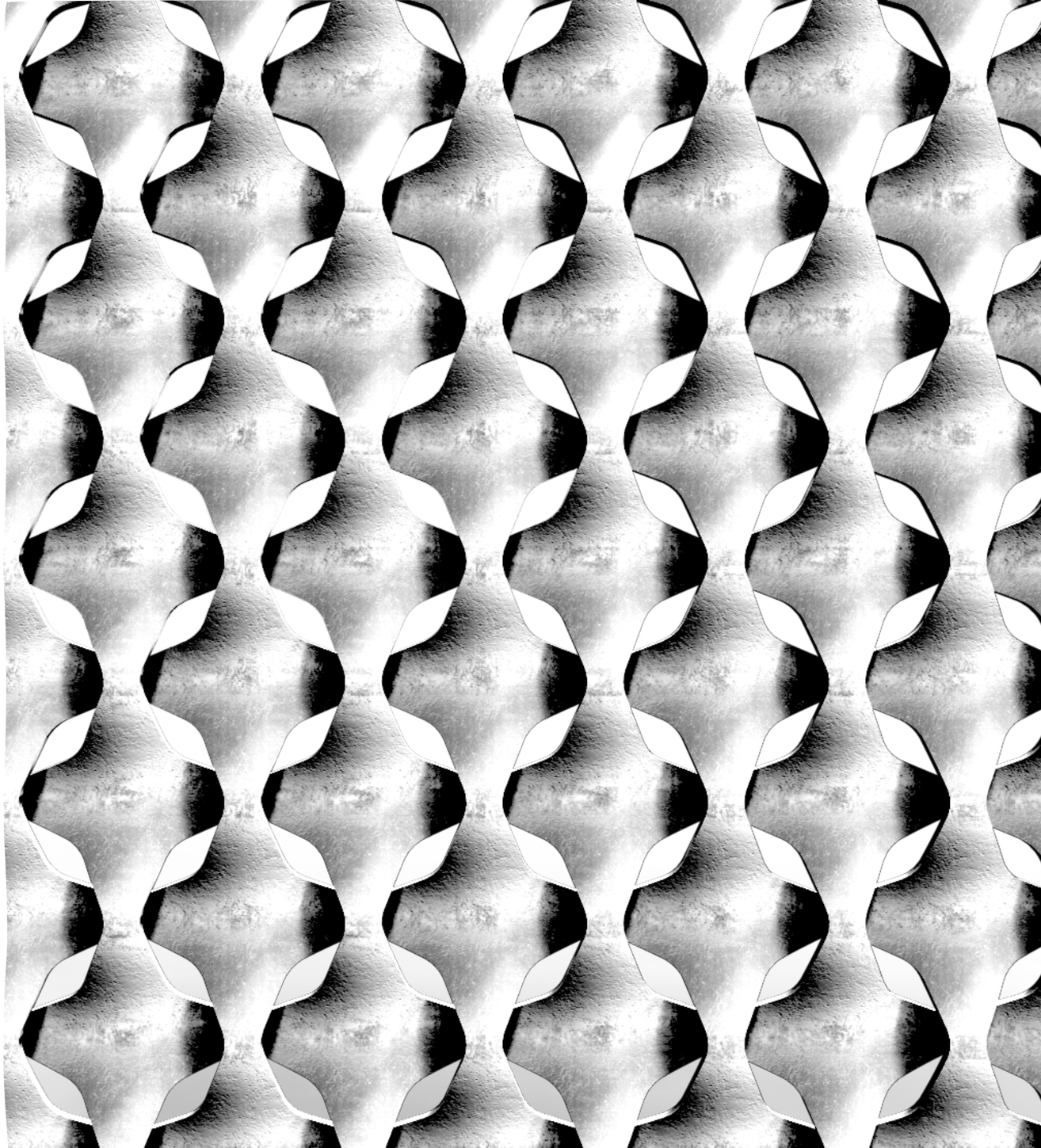
VARIATION I

Polygon side : 20
Approximation of a circle



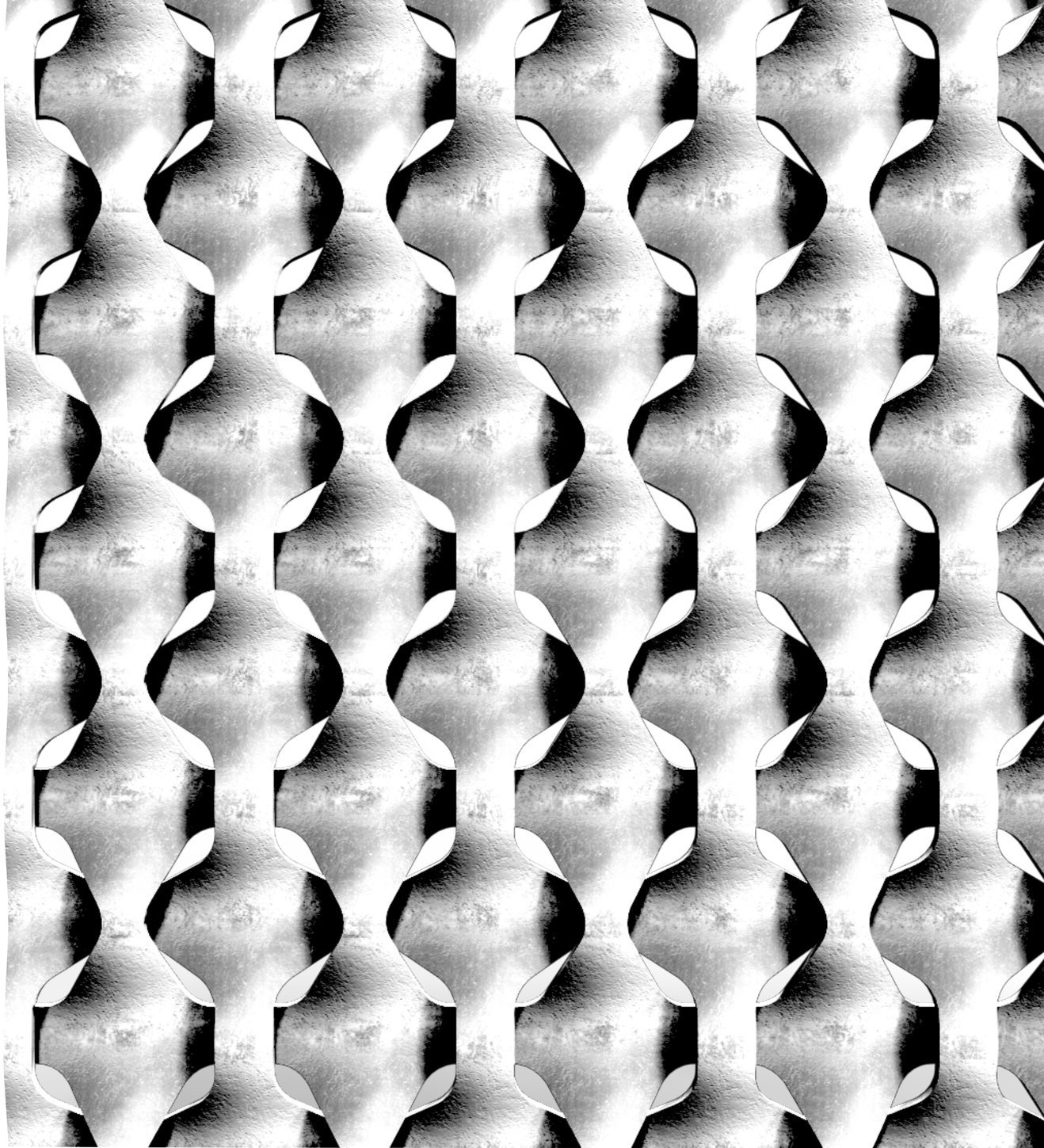
VARIATION II

Polygon side : 8



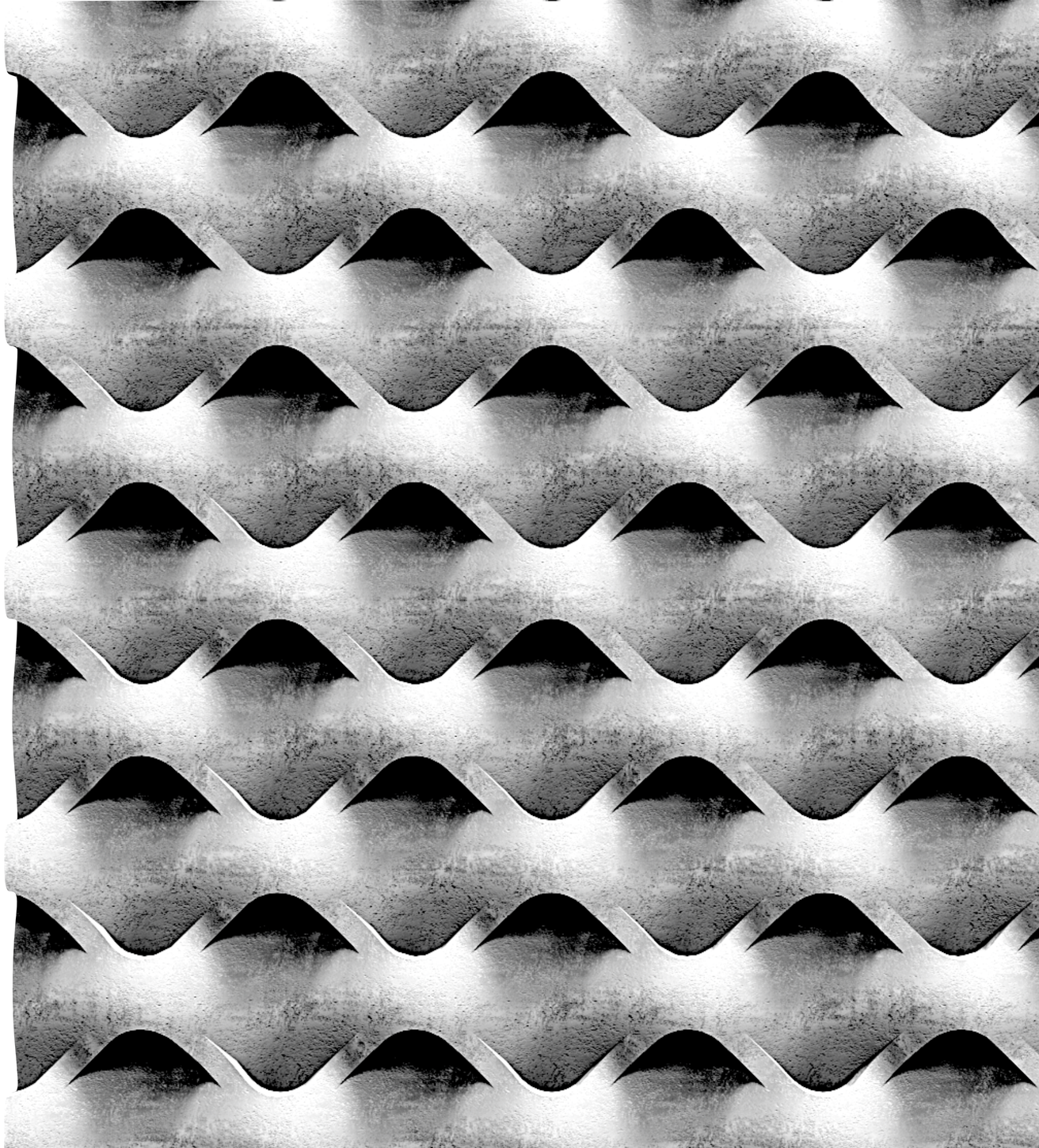
VARIATION III

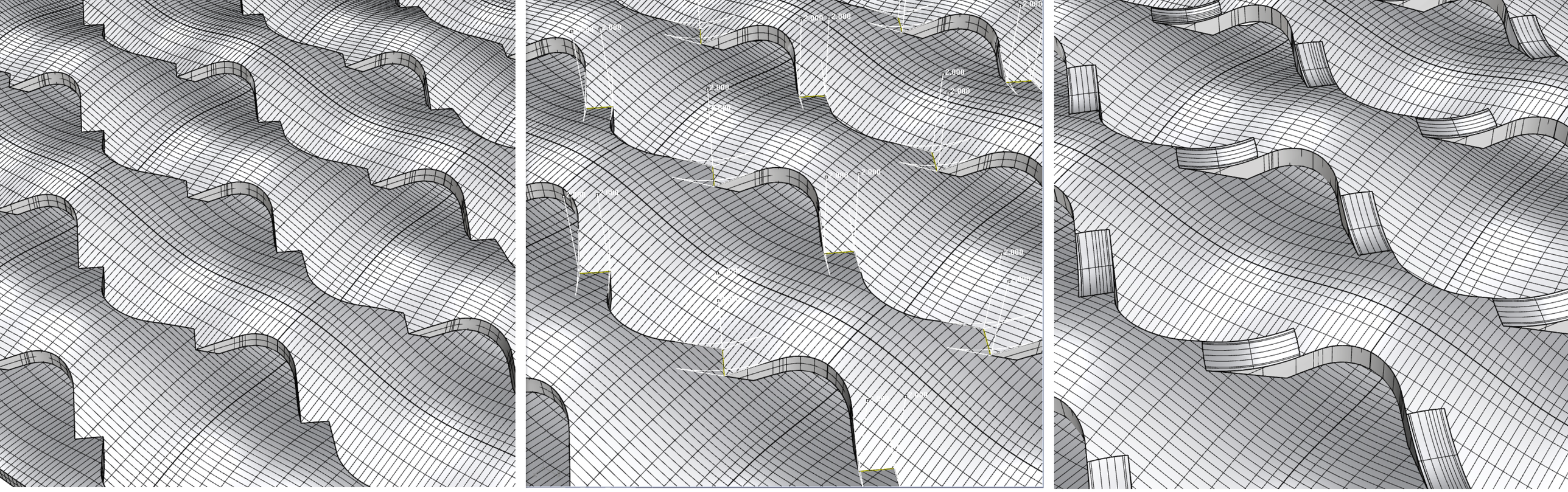
Polygon side : 6



VARIATION IV

Polygon side : 4





VARIATION IV

The two panel actually intersects with each other.

So there's one extra step, boolean the two panel together and fillet the edge where the two meet.

To make things easier, you can create one module, create fillet first then orient them in grasshopper.

THANKS