

ASSIGN 03 | DIGITAL MODEL

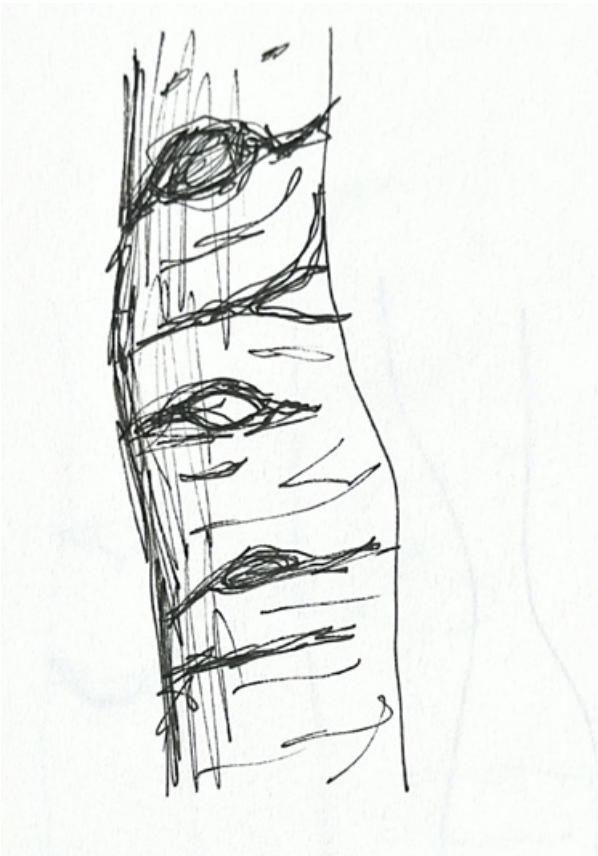


ASSIGN 03

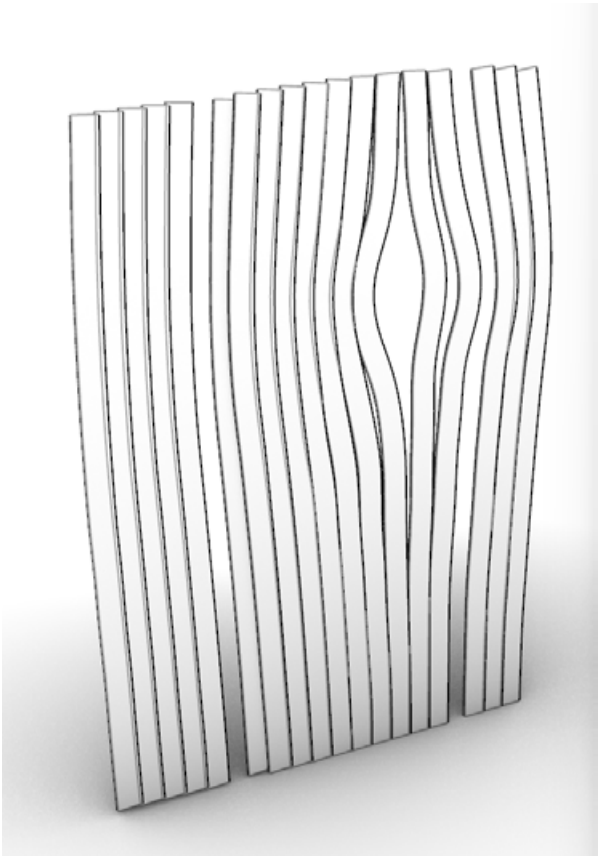
01 INITIAL SKETCH | PAVILLION STRUCTURE

INITIAL IDEAS DERIVED FROM ASPEN TREE

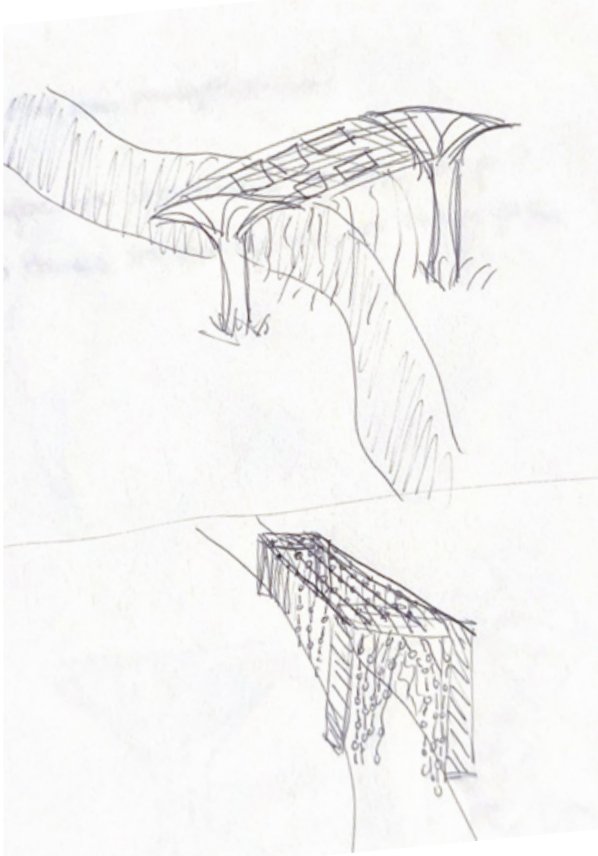
1 MINUTE SKETCH



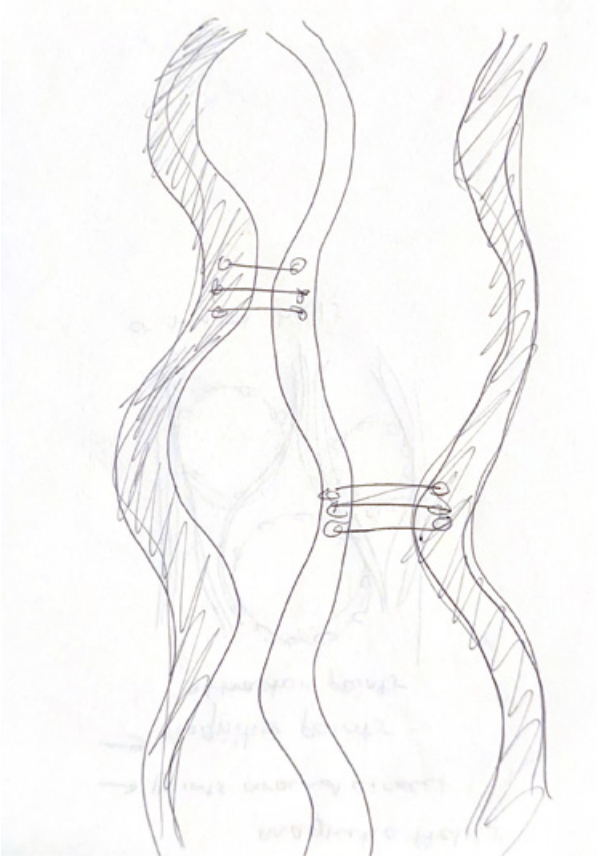
PARAMETRIC GEOMETRY



ITERATIVE SKETCHES



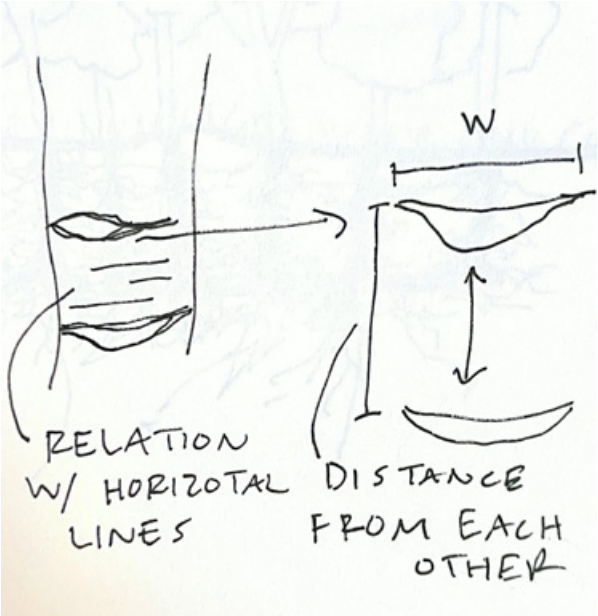
1. WIDTH OF MEMBERS ON ARCH



2. DEPTH OF MEMBERS ON ARCH



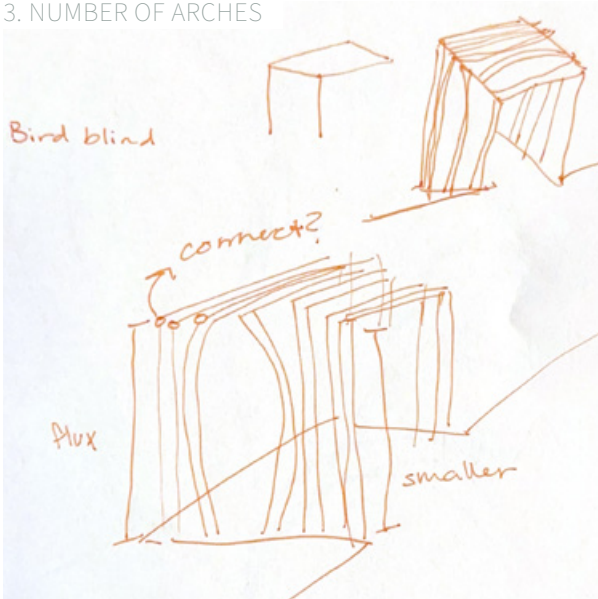
PARAMETRIC SHAPES



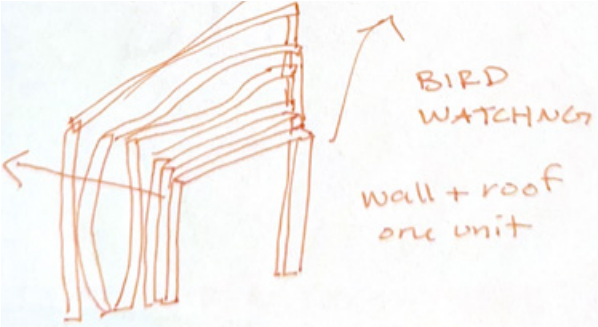
PARAMETERS FOR PAVILLION

- 1. WIDTH OF MEMBERS ON ARCH
- 2. DEPTH OF MEMBERS ON ARCH
- 3. NUMBER OF ARCHES
- 4. HOW SPREAD APART ARCHES ARE
- 5. HEIGHT OF ARCH

ITERATIVE SKETCHES



4. HOW SPREAD APART ARCHES ARE



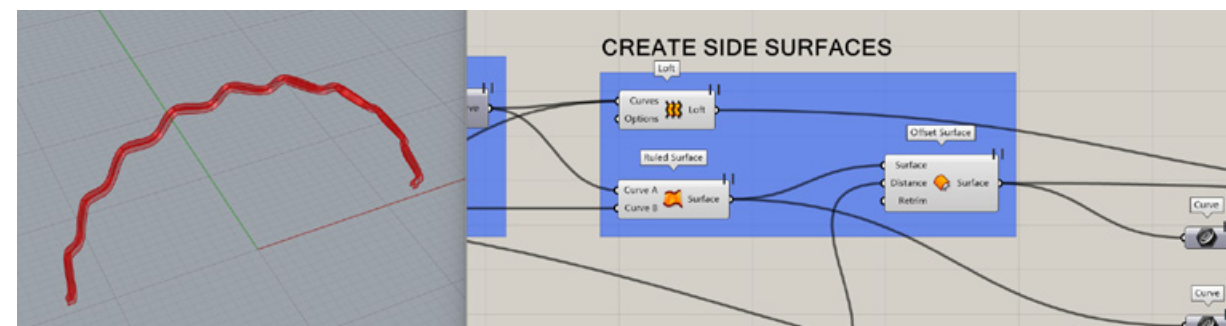
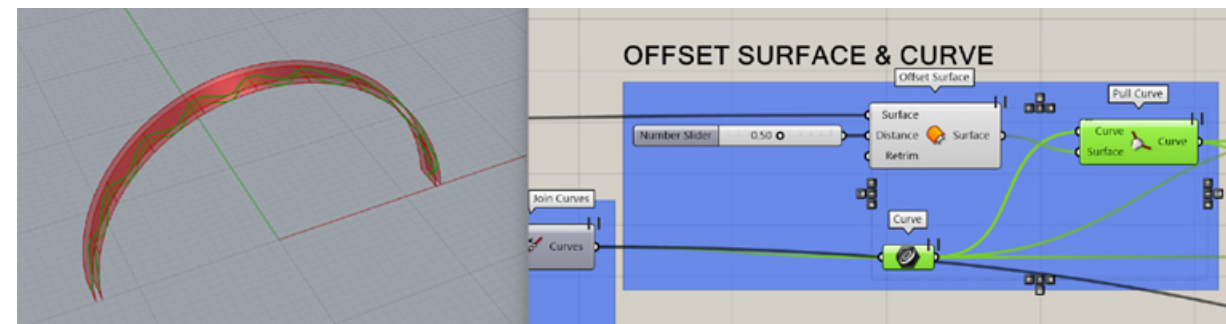
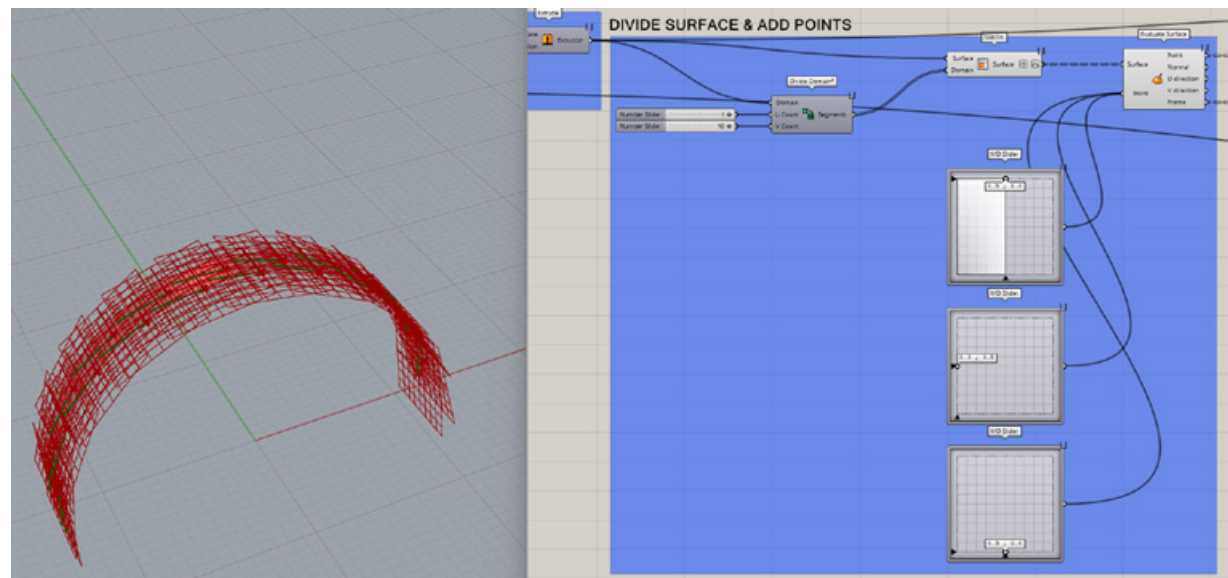
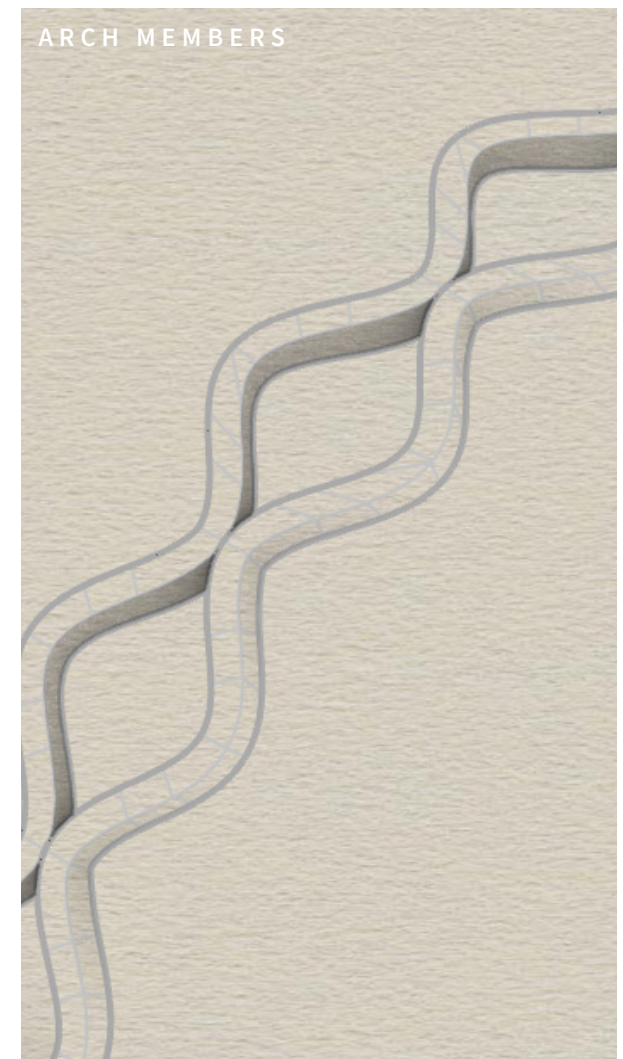
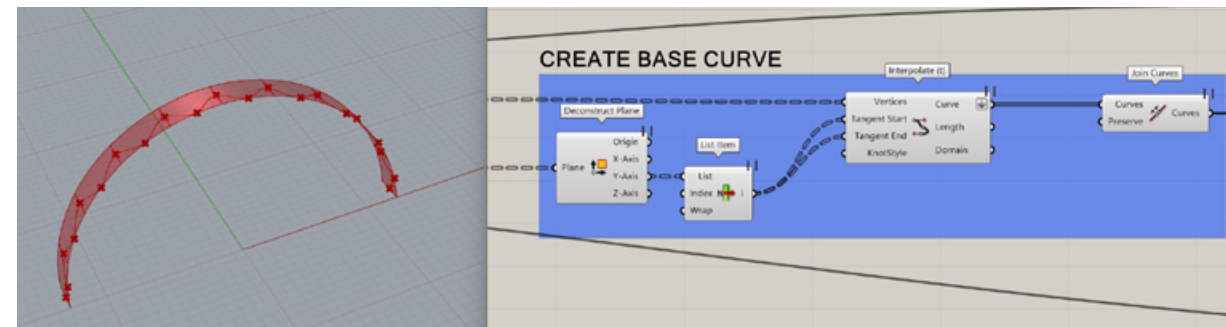
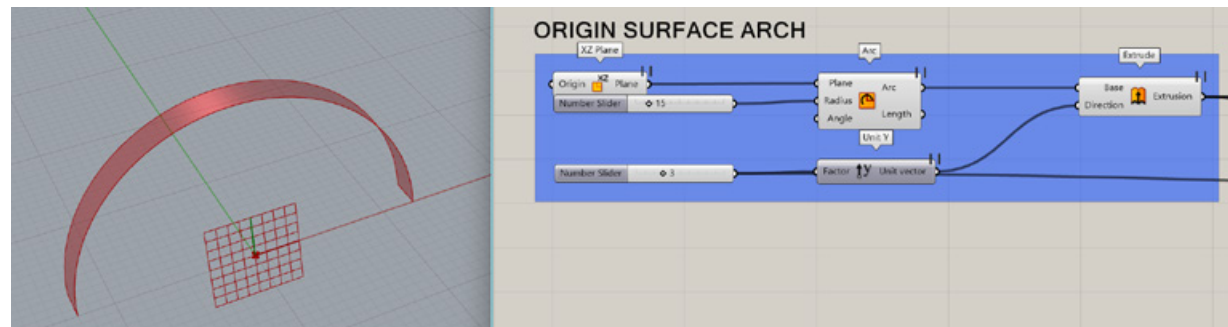
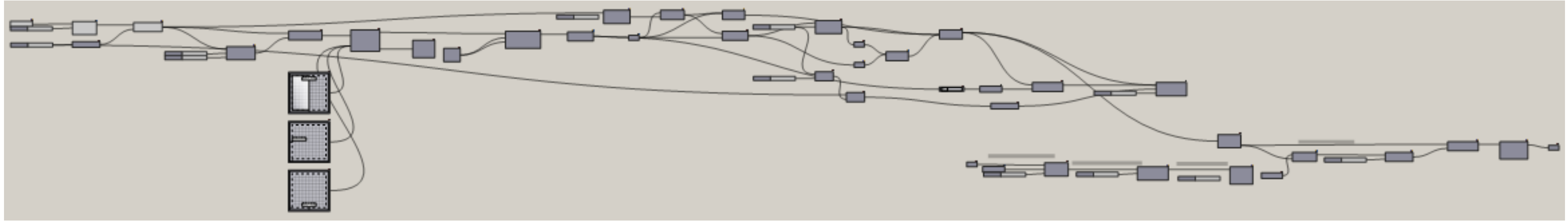
5. HEIGHT OF ARCH



ASSIGN 03

02 GRASSHOPPER | DIGITAL MODEL

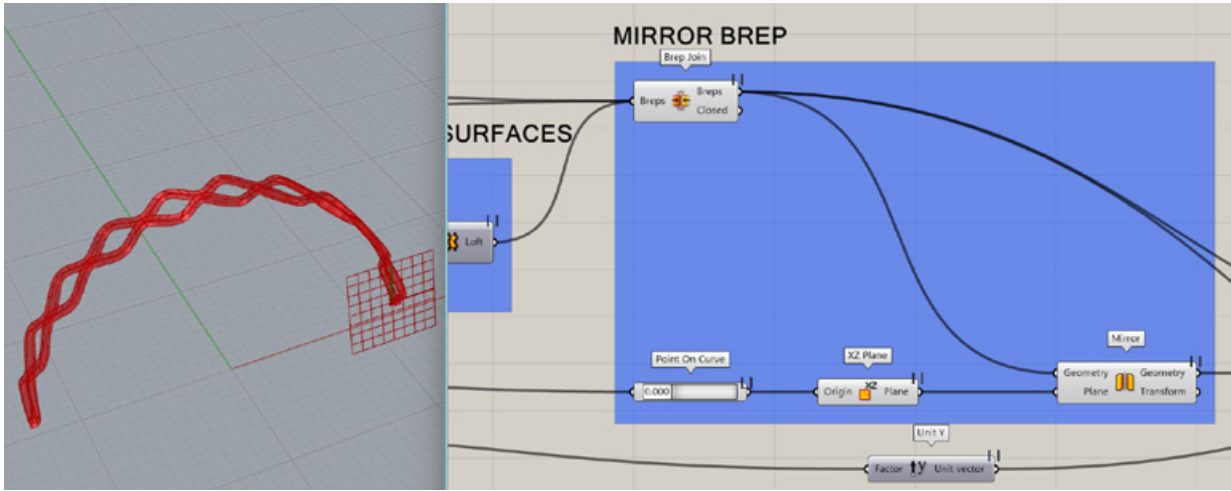
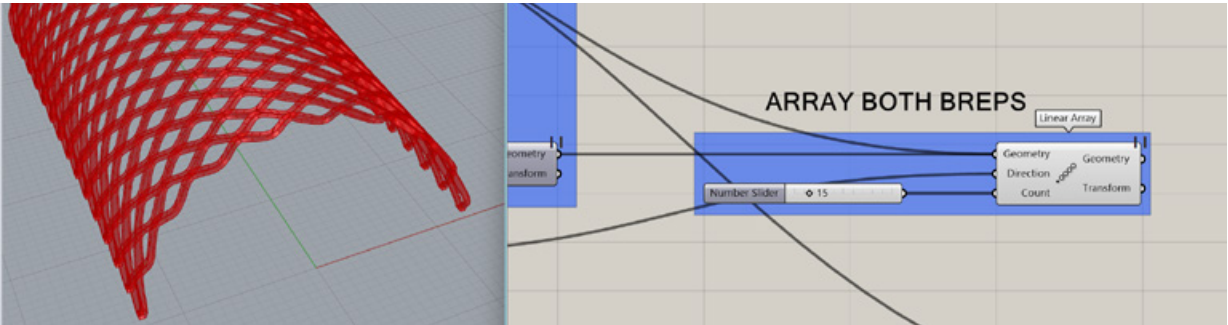
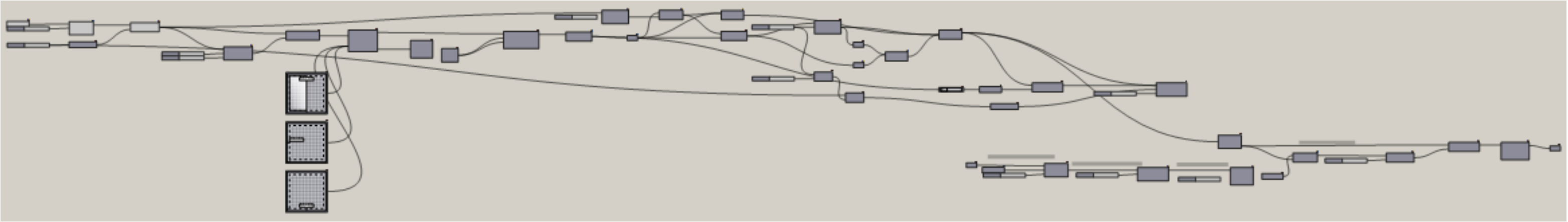
MODEL CREATION IN RHINO Pavillion Structure



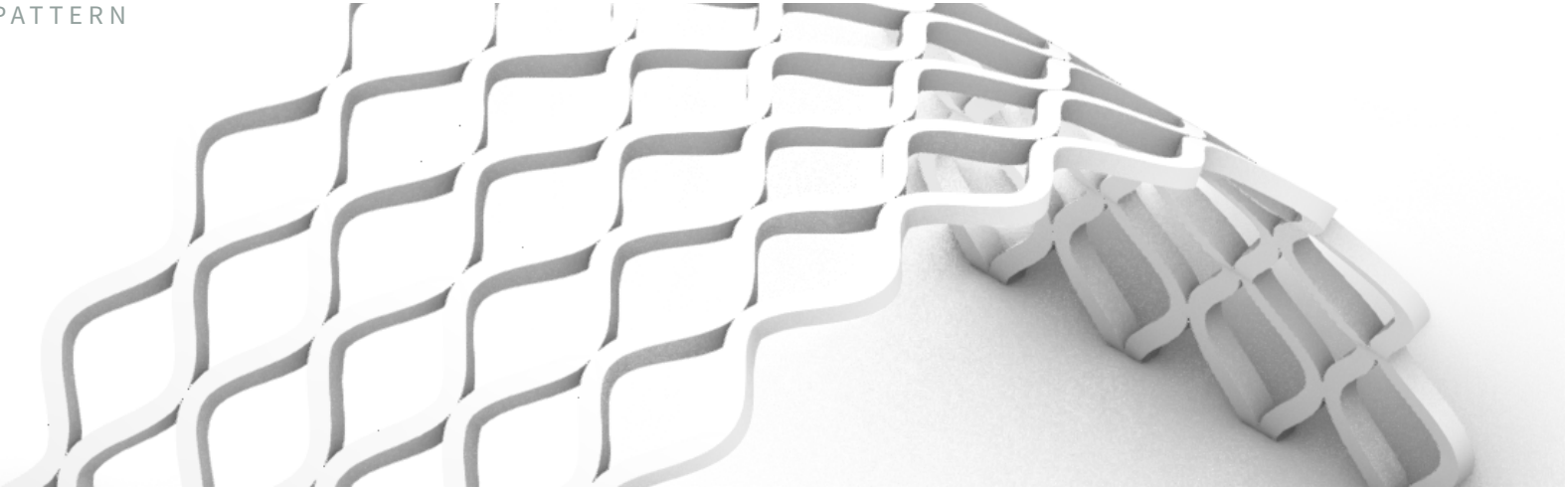
ASSIGN 03

03 GRASSHOPPER 2 | DIGITAL MODEL

MODEL CREATION IN RHINO Pavillion Structure



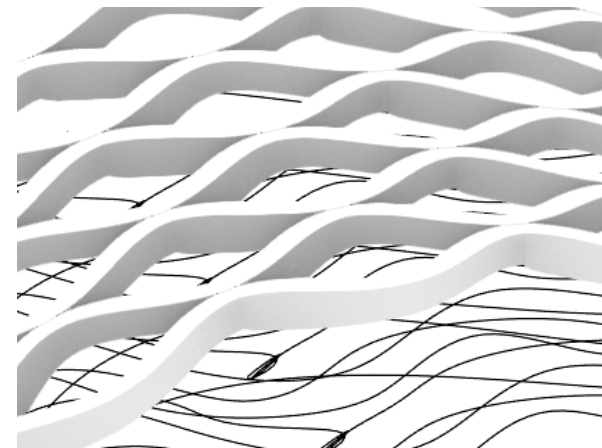
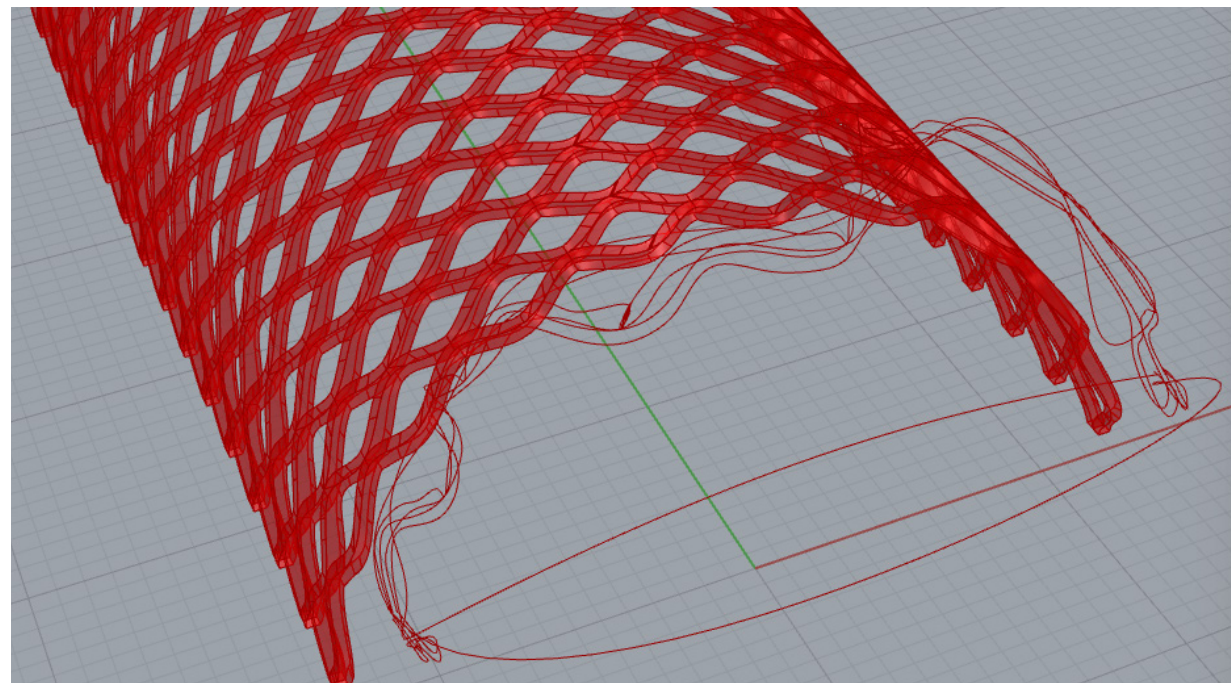
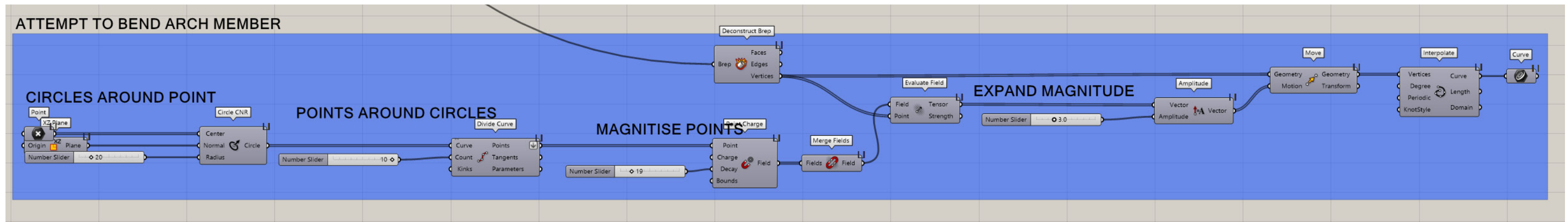
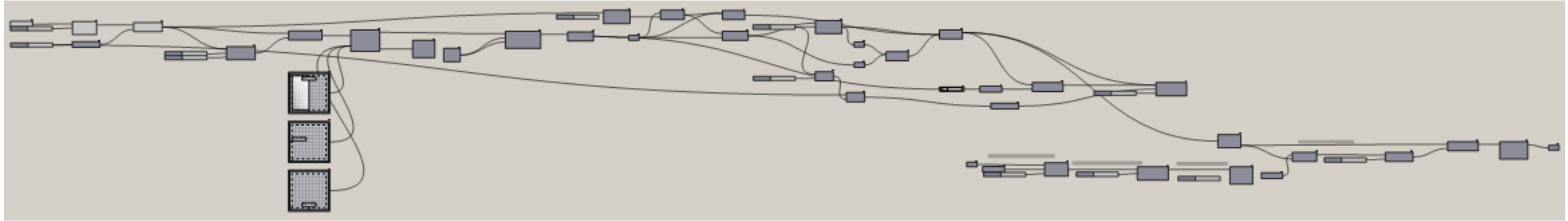
PAVILLION KNOT PATTERN



ASSIGN 03

04 GRASSHOPPER | DIGITAL MODEL

POTENTIAL TO MOVE FURTHER Pavillion Structure



CONTINUATION

- Adding curving singled out arch's, once or arrayed
- **Goal** was to have an arch member curve out of the pattern for potential seating
 - Most successful attempt
 - Magnitize points from assign 02
 - Other attempts
 - Bend, point, & spatial deform components

ASSIGN 03

05 PERSPECTIVES | DIGITAL MODEL

INITIAL IDEAS DERIVED FROM ASPEN TREE

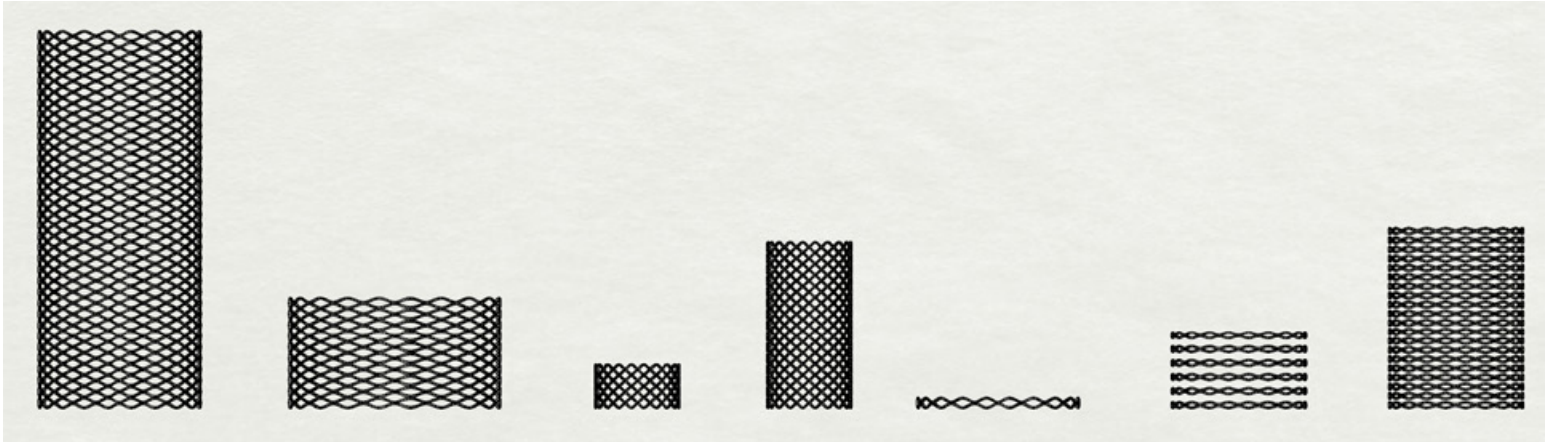
DESIGN VARIATIONS



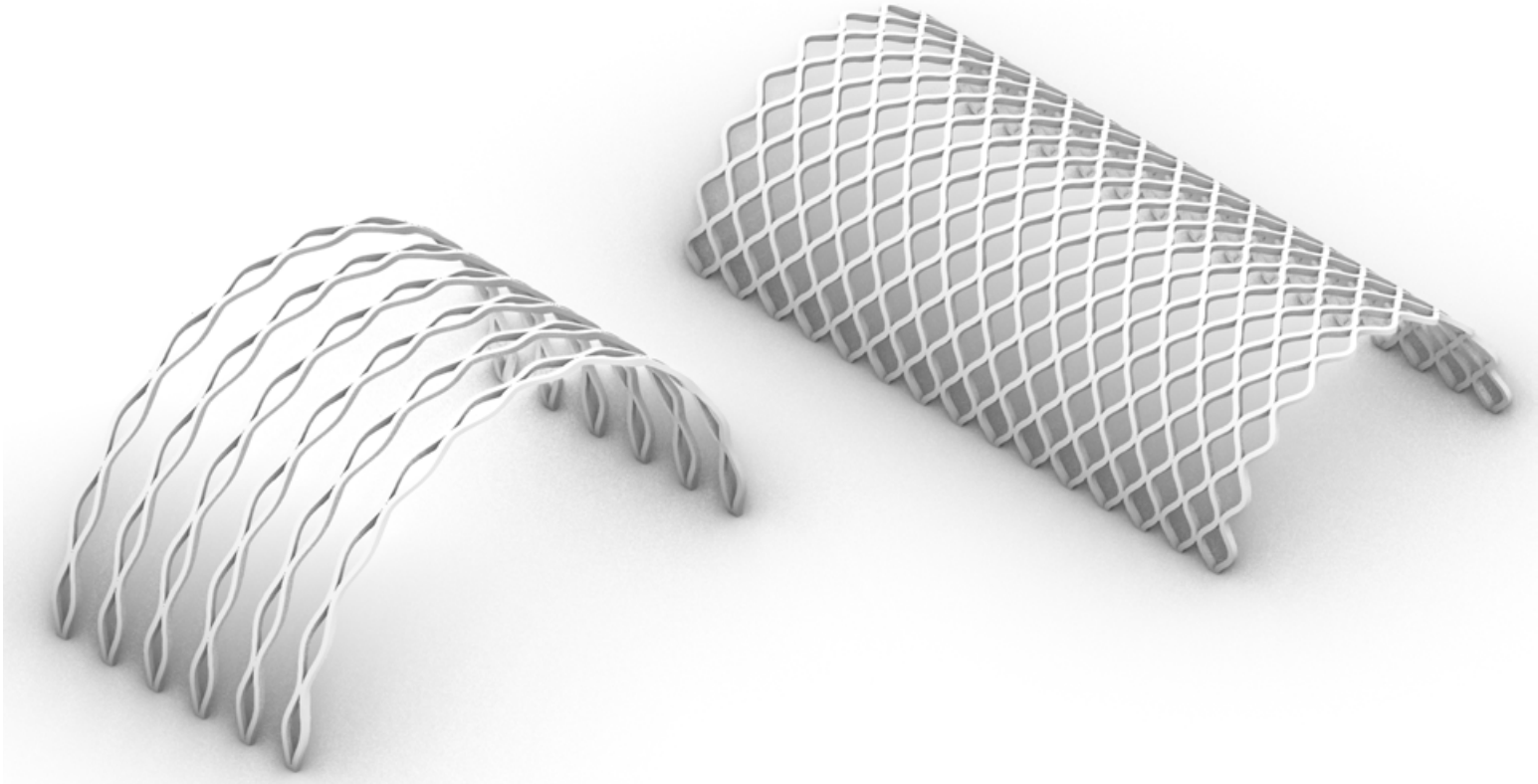
PARAMETERS

- 1. WIDTH OF MEMBERS ON ARCH
- 2. DEPTH OF MEMBERS ON ARCH
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- 5. HEIGHT OF ARCH

VARIATIONS PLAN VIEW

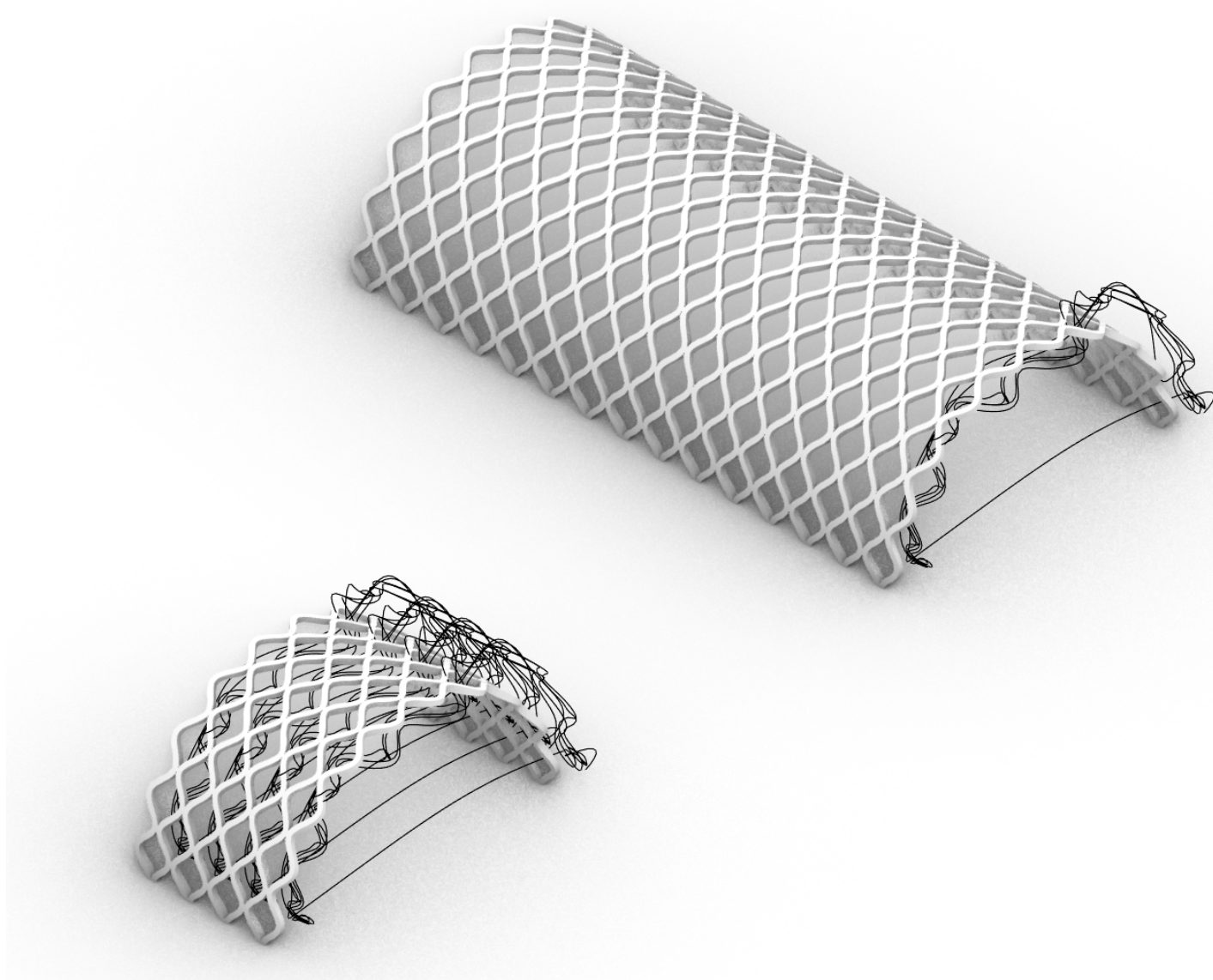


ENLARGED SELECT VARIATIONS



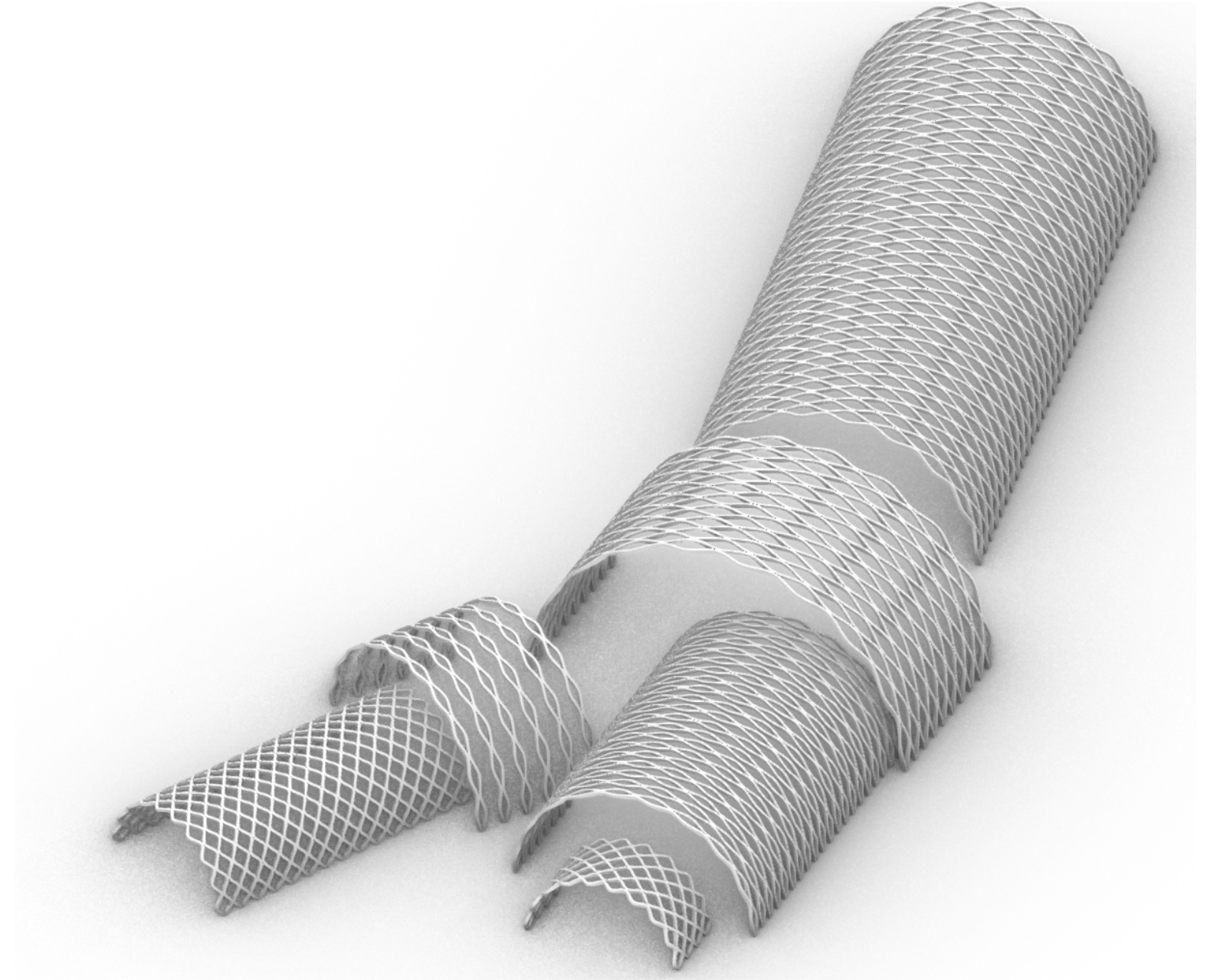
ASSIGN 03

06 PERSPECTIVES | DIGITAL MODEL



OTHER FEATURES

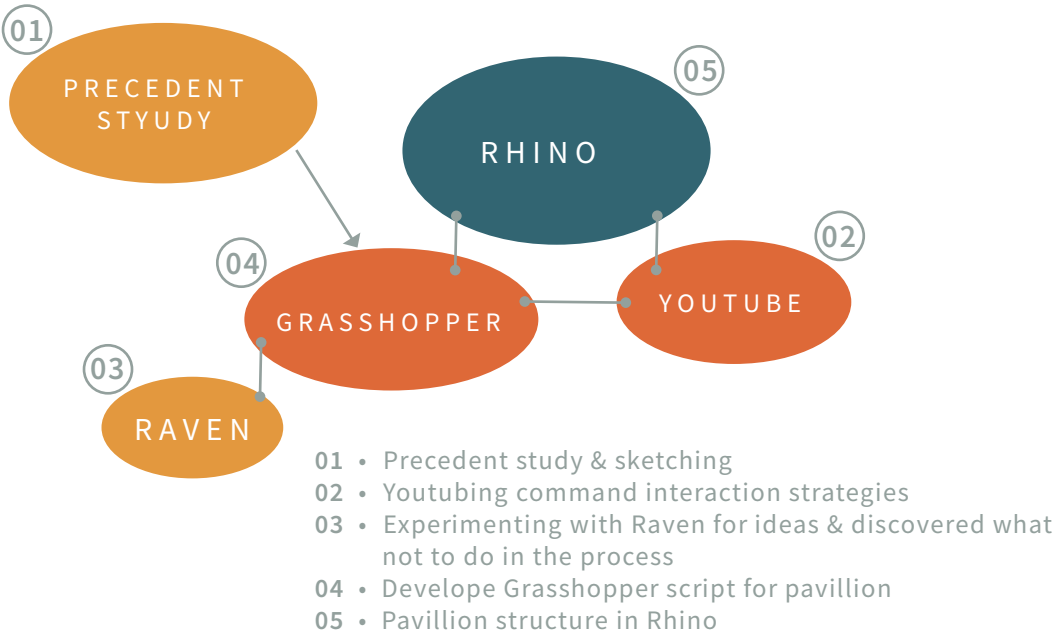
- Adding curving singled out arch's, once or arrayed
- Opportunity to connect different versions of pattern to expand pavillion



ASSIGN 03

07 REFLECTION | DIGITAL MODEL

WORK FLOW DIAGRAM



Rhino\Grasshopper

SUMMARY

- STEP 01:
Sketch and get inspiration for what to create.
- STEP 02:
Research precedents for the design & similiar Grasshopper skripts.
- STEP 03:
Experiment & develope Grasshopper script.
- STEP 04:
Contemplate future iterations that would further push the design.
- STEP 05:
Take screenshots of variations & reflect on process.

This workflow highlights the process of digital modeling of a parametric system. I spent a large amount of time looking at precedents and trying to find what excited me. Thinking about moving away from mimicking a knot directly on a paneled surface, I aimed to find a pattern or system that would define space not just from one plane. I could see this pavillion structure as a shading system over a pathway or as a bird watching site. In the future, it could be interesting to curve select arches for seating or other uses. Concoidering a shell or or how climate analysis could begin to interact with the system could also advance this concept further.

Using parametric methods shifted the way I approach design by reframing geometry as something dynamic rather than fixed. Instead of modeling a single outcome, I began modeling relationships that allow the design to flex and adjust as new information emerges. Working in Grasshopper pushed me to think less about the object as a whole and more about constructing a system that could generate multiple variations with intention.