university of Oregon – school of architecture and allied arts – department of architecture
arch4/585 advanced architectural design – nancy cheng

MATERIALS

as a focus for architectural design
Assignment 3

Kyna Leski image

After becoming familiar with the site location, establishing a suitable program and determining site design approach, students will develop a material palette to create an aesthetic character and drive a tectonic approach.

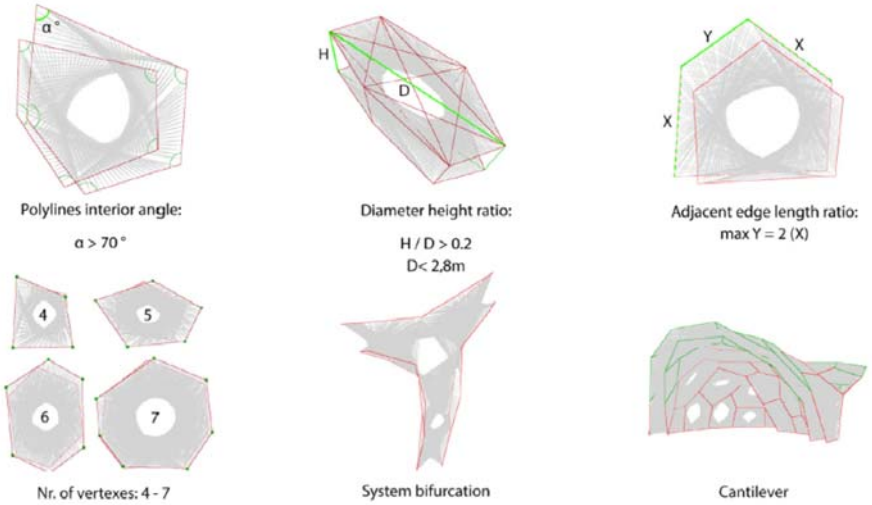
REVIEW:

1. Write up Site review notes with self-assessment and sketches of how to move forward. (private)
2. Post a strong image of your project with your project statement with links to your Site Design work on to the blog. (public).

MUSIC as MUSICAL METAPHOR

1. **Soundtrack palette:** Find a piece of music that has the spirit of the place you seek to create, perusing local/regional organisms, colors and textures from art pieces as inspiration. Images can be dropped into http://color.adobe.com to generate a palette.
2. **Materials:** Create a material sample board that has the spirit of the music. Consider how stiffness | flexibility, opacity | translucency, shininess | textures and color can contribute to a rich spectrum of experiences. Visit the Materials Resource Center in 475 Lawrence to examine options: you may borrow up to 15 samples for the term.
3. **Identity:** Create a project logo that has the spirit of the music and design an entrance with the logo as signage using the palette of materials. Create a 3D sketch or rendering of the entrance.

Deliverables: Initial soundtrack and palette ideas, , Material sample board, 3D image of entrance with logo



Catalog of primitives and assemblies from University of Stuttgart ICD Fiber-winding experiments

MATERIALS, TECTONICS & BUILDING ORGANIZATION

1. **Research:** Select a building material (concrete, steel, wood) considering the type and height of your building, and collect examples of how a typical bay can bring together structure, skin and light, considering material qualities.
2. **Experiment:** Create your own tectonic system through experimentation. Can you create a new kind of spatial primitive and connections that open up new kinds of assemblies?
3. **Systematize:** Analyze your experiments and create a parametric system so that allows adjustment of proportions and quantities. (it can be simple)
4. **Apply:** Organize your program areas with heavy and light edges, sketch out organizing geometries. (i.e.Spine with head and tail, Nodal network, Radial fan, Series of courtyard voids)

University of Stuttgart ICD/ITKE 2013-14 Pavillion

SCHEDULE

Date	What is due	Activity in class
W 1/27	Post Site Design & Self-evaluation, Draft of Music Metaphor	
F 1/29	Music Metaphor due, Drafts of Grad Research reports	GH Paneling Tools
M 2/1	Material Experiments: create primitive units & join	Material Research reports 1
W 2/3	Catalog of Material Primitive forms and connections	Material Research reports 2
F 2/5	Parametric system developed by end of class	GH parametric system
M 2/8	Pinup of Material and Tectonic work	

REFERENCES:

Dörstelmann, Moritz et. al., "Integrative Computational Design Methodologies for Modular Architectural Fiber Composite Morphologies", ACADIA 2014 : Design Agency.

Borden, Gail Peter and Michael Merideth (eds.), Matter: Material Processes in Architectural Production. Routledge, 2011.

Brownell, Blaine & Marc Swackhamer, HyperNatural, New York: Princeton Arch. Press, 2015