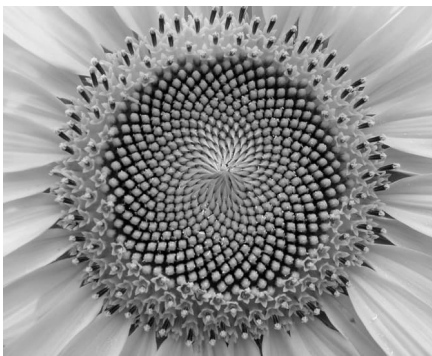


# EXERCISE 1

## ARCHETYPAL GEOMETRY

Workshop Series: Principles of Classical Architecture | Jeff Roberson + Brandon Ro

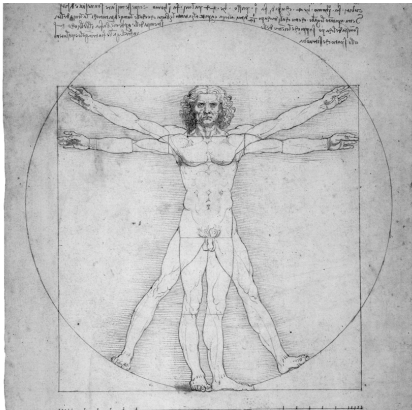


“[Patterns] can be guides to a deep cosmic canon of design...Nature itself rests on an internal foundation of archetypal principles symbolized by numbers, shapes, and their arithmetic and geometric relationships.”

-**Michael S. Schneider**, *A Beginner's Guide to Constructing the Universe* (New York: HarperCollins, 1994), xx

“The true work of art is but a shadow of the divine perfection.”

-**Michelangelo**



“Philosophy is written in this grand book – I mean the universe – which stands continually open to our gaze, but it cannot be understood unless one first learns to comprehend the language and interpret the characters in which it is written. It is written in the language of mathematics, and its characters are triangles, circles, and other geometrical figures, without which it is humanly impossible to understand a single word of it; without these, one is wandering about in a dark labyrinth.”

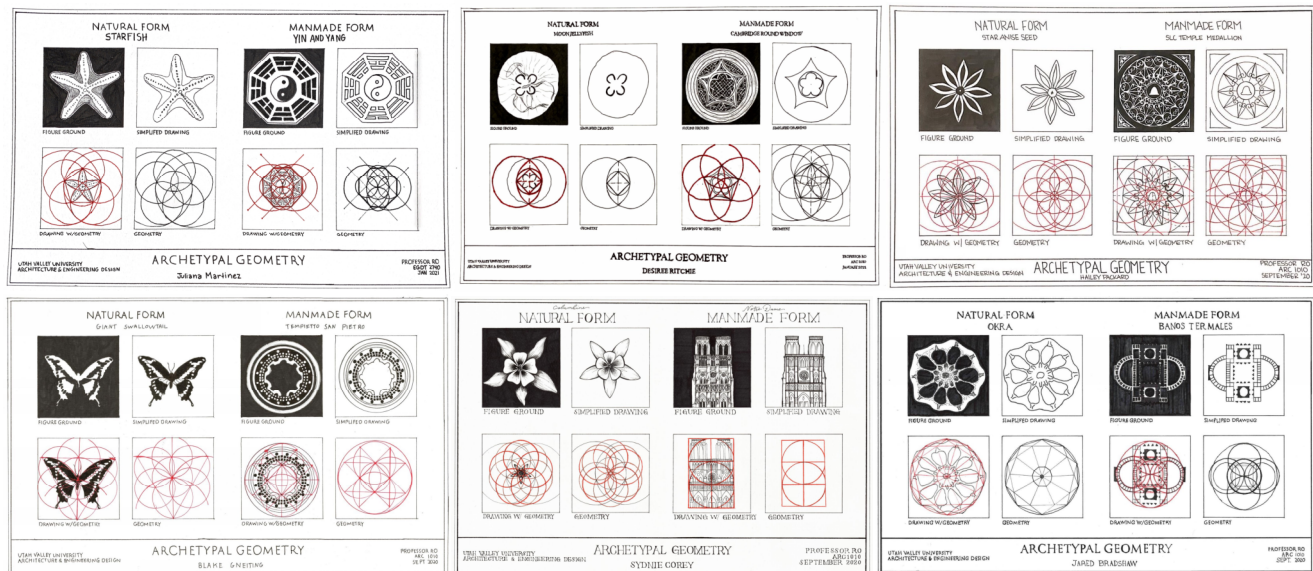
-**Galileo**



“Images, archetypes and metaphors structure our perceptions, thoughts and feelings, and they are capable of communicating messages of deep time as well as mediating epic narratives or human life and destiny...The aspiration to fuse the cosmic and the human, divine and mortal, spiritual and material, combined with the use of systems of proportion and measure deriving simultaneously from the cosmic order and human figure, gave architectural geometries their meaning and deep sense of spiritual life.”

-**Juhani Pallasmaa**, *The Embodied Image: Imagination and Imagery in Architecture* (Chichester, United Kingdom: John Wiley & Sons, 2011), 23

# ARCHETYPAL GEOMETRY DRAWING



## OBJECTIVE

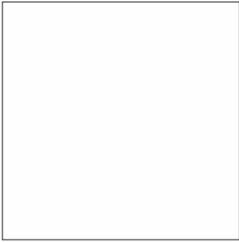
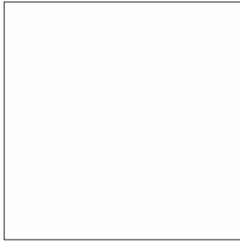
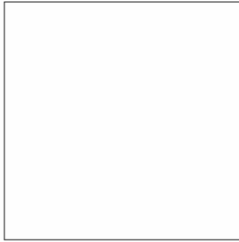
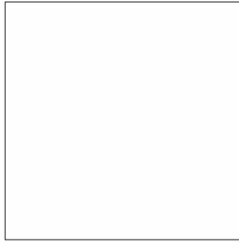
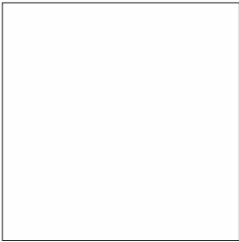
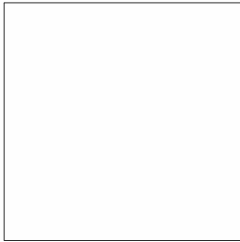
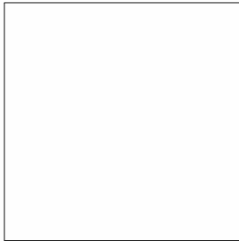
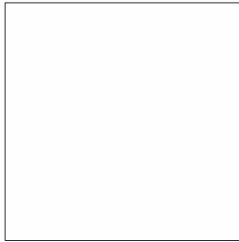
Classical architecture is a pattern language. Students begin to explore this language by learning from different types of ordering systems. This first exercise is aimed at introducing students to the “quadrivium” principles that inform classical architecture which are found in the order, proportion, archetypal geometry, and patterns found in nature and the cosmos.

## DRAWINGS REQUIREMENTS

Using an 11”x17” tabloid sheet of vellum, watercolor, or standard paper, each student will select a natural form and a humanmade form to study. Four analytical drawings will be created for each object that is chosen. In total you will have eight drawings on a single sheet as illustrated in the layout below. Each object will be studied via the following drawings:

1. Figure-ground drawing (background is black)
2. Inverse figure-ground drawing (background is white)
3. Simplified line drawing of object with polygon geometrical construction lines overlaid in red
4. Archetypal polygon geometrical construction lines by themselves

**The final drawing should be scanned and submitted digitally. This drawing will be due one week after being assigned in class.**

NATURAL FORM		HUMANMADE FORM	
NAME OF OBJECT		NAME OF OBJECT	
			
FIGURE GROUND	INVERSE FIGURE GROUND	FIGURE GROUND	INVERSE FIGURE GROUND
			
FORM + GEOMETRY OVERLAY	ARCHETYPAL GEOMETRY	FORM + GEOMETRY OVERLAY	ARCHETYPAL GEOMETRY

ARCHETYPAL GEOMETRY

## RELATED READING / VIDEOS

- Bass, Steve. *Beauty, Memory, Unity: A Theory of Proportion in Architecture and Design*. New York: Lindisfarne Books, 2019.
- Martineau, John, ed. *Quadrivium: The Four Classical Liberal Arts of Number, Geometry, Music, & Cosmology*. New York: Bloomsbury USA, 2010.
- Schneider, Michael S. *A Beginner's Guide to Constructing the Universe: The Mathematical Archetypes of Nature, Art, and Science*. New York: HarperCollins, 1994.
- Lisa DeLong, “Geometry Hidden in Plain Sight” <https://youtu.be/ePbgGkhLBho>
- Lisa DeLong, “The Nature of Shape and the Roots of Proportion” <https://youtu.be/IFE2H0lZSqI>
- Joseph Brickey, “From One to Oneness: The Compass, The Cubit and Archetypal Anatomy” [https://youtu.be/\\_xZc755qieU](https://youtu.be/_xZc755qieU)
- Brandon Ro, “Templum Dei: Exploring the Language of Sacred Architecture” <https://youtu.be/4wFF9BHihf4>