

White-Blue-Black | 2024 | Sarah Okayli Masaryk & Sheau Lim

This subject introduces a *Generative HI* (human intelligence) approach to designing and making. *Shape grammars* are the basis for this approach. Shape grammars compute with the super-sensory – visual and tactile – powers of humans. They were one of the first, and remain one of few, generative design systems that are computational but not necessarily computer-based. They are a powerful means for design analysis and for creative design and exploration. They offer a paradigm distinct from other generative design approaches and technologies available today.

Shape grammars will be introduced through a *slow computing* approach. By-hand and by-eye exercises will be the basis for learning and making, and for physical production. A range of applications from stylistic analysis to creative designing and making will be explored. Software for automating shape grammars will be introduced.

Prerequisites

None! No background in computing or programming is assumed, and programming is not a requirement of the subject. Students with interests in any area of design are welcome.

Requirements and Grading

Five 1-week assignments: 10% each 2-week assignment: 15% Project: 25% Attendance and participation: 10% Accommodations will made for students who miss class due to illness.

Course website https://canvas.mit.edu/courses/30955/wiki

MIT is committed to the principle of an inclusionary environment. Anyone who needs disability accommodations is encouraged to meet with the instructor, Terry Knight, to discuss disability-related needs, including accommodations needed in order to fully access this course.

Calendar (subject to change)

INTRODUCTION

I	Feb 4	Introduction to Shape Grammars
		FUNDAMENTALS
2	Feb 11	Shapes, Shape Arithmetic, Shape Rules Assignment 1 Rules
	Feb 18	NO CLASS
3	Feb 25	Labelled Rules Assignment 2 Labeled Rules
4	March 4	Parametric Rules Assignment 3 Parametric Rules
		ANALYSIS
5	March II	Style and Analysis Assignment 4 Finding Rules
6	March 18	Assignment 4 Review

March 25	NO CLASS (SPRING BREAK)

DESIGNING/MAKING

7	April I	Basic Grammars Assignment 5 Basic Grammars 2D
8	April 8	Basic Grammars Assignment 6 Basic Grammars 3D (2 weeks)
9	April 15	Complex Grammars / Making Grammars
10	April 22	Assignment 6 Review Project handout

PROJECT

Ш	April 29	Project Ideas Review
12	May 6	Project: Work-in-Progress
13	May 13	Project: Work-in-Progress

VVeek of May 22 FINAL PROJECT REVIEW	Week of May 22	FINAL PROJECT REVIEW
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