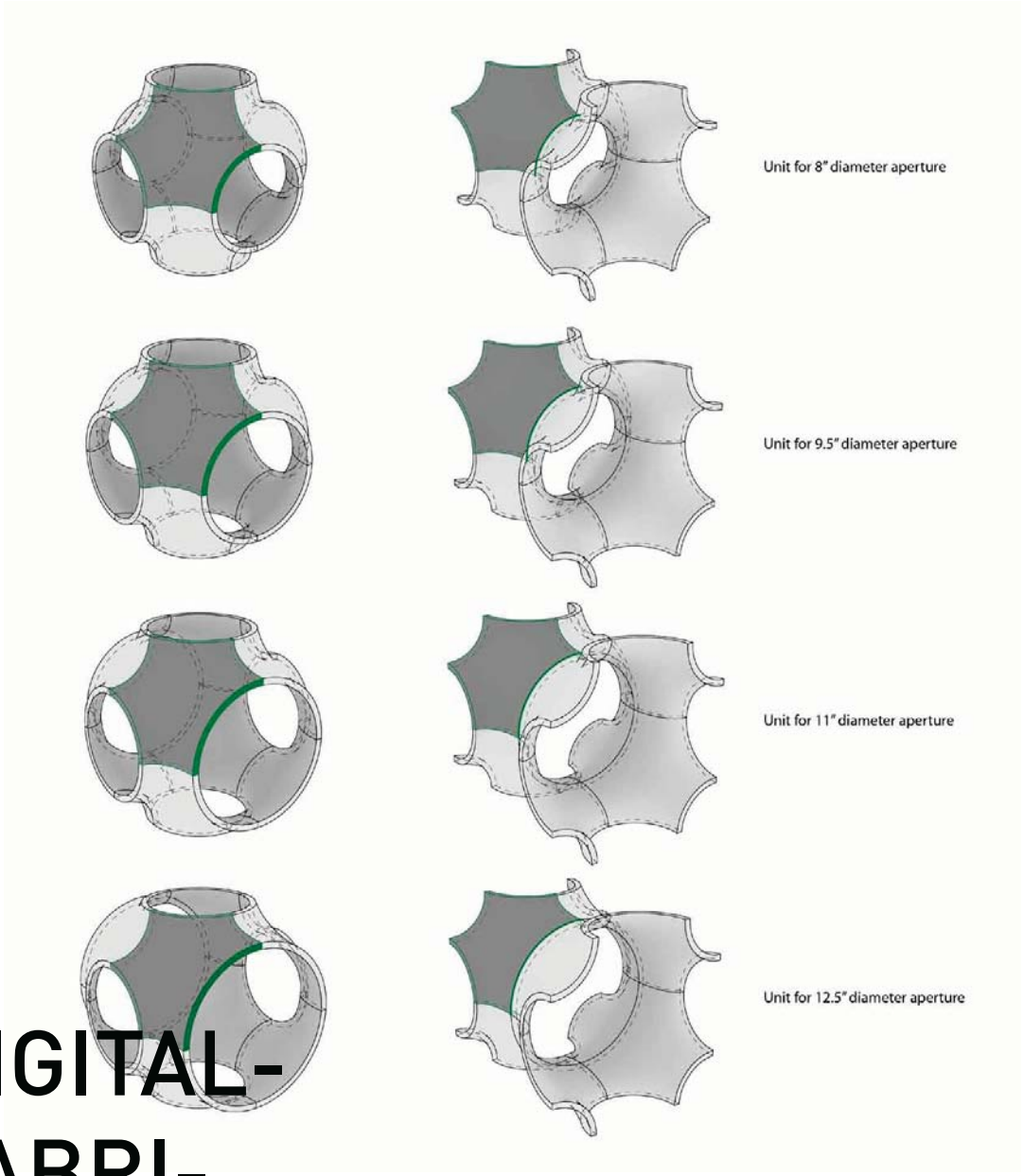

DIGITAL-FABRI-CATION

Minimal Surface Building Unit

The project examines the potential variation and conservation that can be embedded within four masonry units.

Formally, we begin with the P-Schwarz Infinite Period Minimal Surface, which makes up the base module. Three variations are derived formally from this in which the aperature increases in diameter. (These variations are technically not minimal surfaces.)

With four molds, eight different modules can be assembled, which are then able to interact with eachother establishing a building system capable of a range of variability. Such variability could be in response to structure, optical qualities, solar orientation, or program.

The material volume to spatial volume is quite low resulting in less material usage. Additionally, by reducing the module to a simplified part, shipping of the parts becomes more efficient as the parts can be nested and pack more densely. Upon arriving on the site, it would then be assembled into their respective module.

Instructors: Glenn Wilcox Team Members: Gavet Douangvichit, John Puff, Kris Walters jr.