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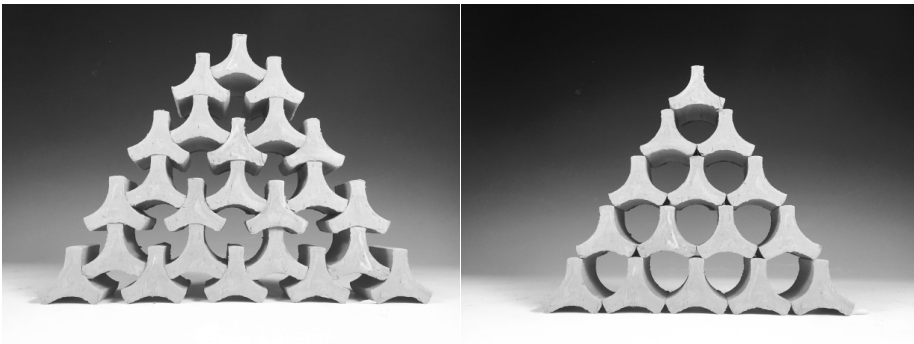
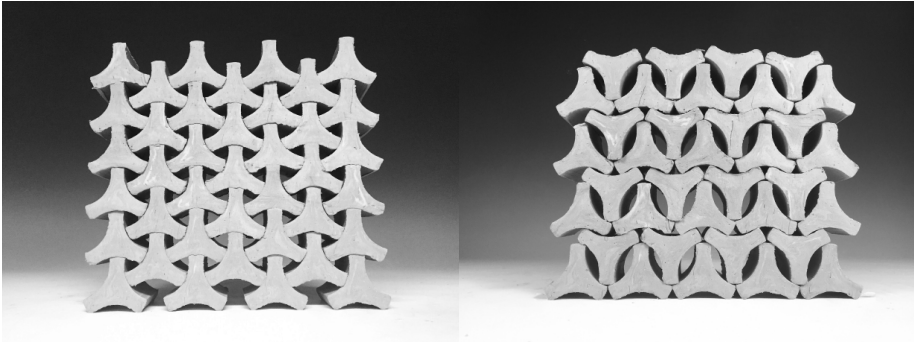
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Dynamic Ceramic

Phirak Suon

This research is a creative process between clay as a material and technology as a driver in architectural design for building material. Clay is a material with long history in building construction throughout the world, it is often overlooked as a building material for the poor. Using both traditional and new methods of building with clay, the process started with hand building, extrusion, casting and 3D printing.

The operation of producing ceramic products is not a process of elimination traditional methods of construction but to expand on what it could be with additional use of technology. This investigation will be done using additive manufacturing method of clay 3D printing to create series of bricks, ceramic tiles and self-supporting structural component as an ongoing experiment. Using clay as a fundamental material for this research is a chance for architects to bridge the gap between digital fabrication and craft. By understanding clay properties and processes combining with today technology allowed for new inventive design and esthetic in the built environment.

This research investigates the creative processes of working with clay and immersing technologies in order to develop novel building materials for architectural uses. Clay is a material steeped in a rich, global history in the building professions, but it is often overlooked in contemporary architectural discourse. It is among the first building materials and is still used in accordance to vernacular methods of production. By combining these traditional practices with novel digital fabrication techniques, this project seeks to discover new ways of working with this fundamental building material. The expertise involved in working with clay is varied and includes traditional hand methods, casting, extruding and 3D printing. By focusing on the additive manufacturing techniques of 3D printing, a series of bricks, ceramic tiles and self-supporting structural components will be developed. These experiments will result in novel building elements, but the arrangement and uses of these will rely on proven techniques of working with clay: stacking, hanging, tiling, etc. Fundamentally, this research uses clay as a way of bridging the gap between traditional methods of production and new expertise with the goal of rethinking the use of an ancient building material.





