

ADRIANA IONASCU

Ulster University School of Architecture

Thinking Form: Ways of Making, Hybrid Crafting

This paper discusses a practice-based research project (based at EKWC / FabLab) which aimed to redefine overlaps between design, craft and digital typologies of making; asking whether an exchange of processes may readdress the form, functionality and visual expression of domestic objects for warmth related to space. The project investigates the role of digital modelling as an interactive design tool for generating physical form, a design-led approach to ceramic craft. The intention was to integrate the hand-made and digital technology, craft and design thinking by evolving a hybrid model of making in ceramics. Thus software processing was interconnected with, incorporated into or interrelated to traditional ceramic processes, knowledges, materials, explorations, procedures and techniques, to develop a digital method of fabrication for craft practice.

The project indicates that in re-situating forming/fabrication within a digital context the ceramic medium mediates a series of translations between the making languages of design and craft. As the configuration and form-giving processes shift between tools, methodologies, hand-and-machine methods of production (slipcasting, Rhino digital manipulation and milling), the domestication of digital–crafting becomes a set of transactions that initiate changes in the semantics of form.

Clay is a traditional material associated with the domestic: fired ceramics have always contributed historically to the materiality of buildings (brickwork or moulded surface decoration, tiles and stoves). In this view, the project made use of clay composites to develop heat-releasing three-dimensional profiles or morphologies for the interior walls of architectural spaces. Software technology was used to stage scenarios of form: crafted digital layers of data became rendered into ceramic materials, enabling the production of forms and surfaces adaptable to interior architecture. The initial prototypes represent material interpretations related to the aspects of haptic, sensory interplay between people and the spatiality of domestic/public interiors. They are intended to alter the ways in which people relate to warmth, proposing a different interaction with the environment.

Following the critical views of Aaron Betsky, Paula Antonelli, Peter Dormer, Eric Spiller and Casey Reas; alongside relevant practices of digital crafting presented in events like 'Lab-Craft' (2010), 'Make: Shift: Do' (2014), 'Power of Making' (2011), the paper reflects on craft approaches which use technologies outside of conventional ceramic practice that tend to mutate hand-crafted fabrication methods. It addresses the value and significance of making in relation to digital technologies and discusses how the use of digital forming (imaging/prototyping) changes the nature of ceramic craft and that of the 'new' craft object. By exploring ways in which digital craftsmanship becomes relevant in contemporary design/craft practice the project examines how technological advance recreates approaches to making physical form in contemporary culture.