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Crafting expanded practice: Exploring weave structures to make thinking

ABSTRACT

The aim of this paper is to demonstrate that expanded practice - incorporating projective ecologies, and Japanese bamboo weaving - can be used to frame material experimentation in architectural education. This assertion relies on addressing the question: how do we make thinking? Can the act of weaving structures provide a critical insight into the way we, as human beings, organise our existence (Heslop, 2011)? Is weaving a manifestation of projective ecologies; a form of practice research, concerned with the interplay between forces and materials? It is no longer enough to generate unmotivated forms, via dirty processes, using unsustainable materials. Architecture needs (re)crafting, to fulfil an ecological purpose; to address the greatest challenge of the Anthropocene epoch, climate change. In early 2017, I delivered a Masters of Architecture programme at the University of Queensland, Australia; a build project that took place during the hottest summer on record. This course was based on research I completed during a four-month placement in Japan. Whilst there, I visited and worked with bamboo weavers. These ; artisanal basket makers practice a very personal form of animism, one focused on a reverence for bamboo. They listen to their material, observing a time-honoured process that includes: planting and tending the bamboo forest; harvesting and curing the mature culms; splitting and sizing precise pieces; and, weaving forms using nascent, respectful techniques. Such a quality-driven approach is not unique to this craft. Craft – as both a methodology and a practice - is a valuable means by-which-to inform and enhance STEAM (science, technology, engineering, art and mathematics) projects (Sennett, 2009). As such, I introduced my architecture and engineering students to expanded practice, a methodology and technical framework employed to encourage intense transdisciplinary research and experimentation. Hybrid modes of inquiry informed this thinking, focusing on five tasks: developing relational knowledge; traversing old dichotomies; integrating theory and practice; identifying ethical dimensions; and, engaging in experimentation (Doucet & Janssens, 2011). My students, revealed an inclination for linear approaches to making, leaving little room for play and iteration. They also confronted the reality of 'material as riddle'; material as ineffable. Something that can only be understood by exploring the process of growth; the interplay of forces and materials (Ingold, 2012). To reinforce this connection, I introduced them to pattern formation, in terms of developmental biology, and in relation to Japanese bamboo weaving. Weave structures are an expression of nature’s structural processes; weave pattern formations are akin to those found in nature. With this in mind, my students worked collaboratively to scale up their basket/prototypes, via an experiential build process. The result was not what they, or I, had planned. It did not follow a linear progression, but was borne of material experimentation; of play, iteration, and serendipitous discovery; of finally listening to the material. In abandoning certainty, they embraced a process of academic and non-academic learning; they committed to make weaving, and weave thinking.

Doucet, I & Janssens, N 2011, Transdisciplinary knowledge production in architecture and urbanism towards hybrid modes of inquiry, Springer, Dordrecht; New York.

Heslop, s 2011, “Basketry: Making Human Nature”, in Basketry: Making Human Nature, Heslop, S (ed), East Publishing, Norwich, UK, pp. 14-23.

Ingold, T 2013, Making: Anthropology, Archaeology, Art and Architecture, Routledge, London: New York.

Sennett, R 2009, The Craftsman, 1 edition, Yale University Press, New Haven.