

## Research methodology

### The art of inquiry

# 2

#### 2.1 Making

How do we as designers ask a brick what it wants to be? Ingold (2013) answers this question by stating that human beings learn by doing. This emphasises the need for designers to engage with the objects and spaces they create, in the process that Ingold calls "the art of inquiry" (2013:6): "In the art of inquiry, the conduct of thought goes along with, and continually answers to, the fluxes and flows of the materials with which we work" (Ingold 2013:6). Thus, through the process of making, one observes, examines, reflects and resolves in a cyclical manner.

Technology has enabled novel ways in which to make objects, such as laser cutting and computer numerical control (CNC) milling. These methods are useful to represent final iterations, but are not the tools to which Ingold is referring. Physically grappling with a material is what makes a designer truly understand and test its possibilities and limitations. Pallasmaa (2009) refers to this as "the thinking hand".

If good design requires making, then the very idea of a theoretical dissertation is problematic. There are numerous materials available to landscape architects, yet the physical investigation of their manipulation is limited to factors such as scale, funds and time. For this dissertation, the selection of materials for exploration is based on the tools available to the designer, and whether their manipulation can be done by the designer alone. Furthermore, the cost of the material needs to be covered by the designer which results in a selection of relatively affordable materials. Lastly, the duration of the study is limited to 9 months, which requires careful scheduling and decision-making that responds to this limitation.

This motivates the use of an alternative research methodology.

The most commonly used design process followed in landscape architecture typically starts at the macroscale, then ends in the micro scale

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(Kirkwood 1999:75). However, two additional approaches to design are proposed by Kirkwood (1999:75): from microscale to the macroscale, and a combination of the two. The making of an artefact as the starting point of a spatial design investigation is thus a valid alternative method to follow during design-based research (refer to figure 4 for on overview of the methodology followed).

#### 2.2 Hybrid research

Wherry (2015:17) proposes a research strategy to be followed when a hand-made artefact is the creative outcome of a design-based research project. It is a hybrid research method that combines the practice-based research method and the action research method, and is based on planning, making, observing and reflecting, supported by thorough textual documentation and planning.

#### 2.3 Practice-based research

Candy (in Wherry 2015:14) defines practice-based research as research by which knowledge is gained partly by means of practice, and where the artefact is the creative outcome of a project. The creative practices employed during this method of research act as the basis for theoretical inquiry and scholarly research (Nimkulrat 2012:2). This method thus encourages creative practice from the researcher, and the process of exploration and making provides the opportunity to generate research and knowledge (Candy & Edmond 2010:5).

Since the knowledge of the process of making is not evident in the object alone, the creative output produced as an integral part of the research process is accompanied by documentation. Textual analysis of the artefact and the process supports the position of the research and demonstrates critical reflection (Creativity & Cognition Studios 2015).

#### 2.4 Action Research

Action research is the cyclical iterative process of an intention or plan, followed by an action, and completed by reflection on that action (Dick & © University of Pretoria



Swepson; Zuber-Skerrit in Wherry (2015:15)). Once a cycle is completed, a second cycle starts with a revised plan or intention.

Action research will assist with the act of making, as the iterative and documentation-based approach of the method will contribute to the development of a well-resolved artefact.



