

# ADOPTING AN ADAPTIVE ARCHITECTURE - ENLISTING DIGITAL TECHNOLOGIES FOR THE ACQUISITION OF LOCAL SPECIFICITY OVER TIME

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Side 1 af 2

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This thesis grounds itself upon the following two implicitly time-based assumptions:

1. Change is inevitable
2. Design is an iterative process

Herbert Simon posits design as an engine of change. He states that design activity is the devising of 'courses of action aimed at changing existing situations into preferred ones' [Simon, 1996. p.111]. Applied against a timeline, synthesised preferred situations become existing situations – the logical conclusion being that design and synthesis should be reiterated in light of new preferred situations. This defines a circular relationship that could continue indefinitely.

The design activity both hypothesises and defines possible 'environments', comprising further sources of change. According to the early twentieth century model of physics proposed by Willard Gibbs, these sources must be considered as both dynamic and contingent. Gibbs' model lays the ground for modern physics. It is a dramatic shift from the long held, and applied, Newtonian position in which physics claimed to deal with certainty [Wiener, 1950. p.13-21]. Dynamic uncertainty reinforces the argument for continual design evaluation and iteration.

This thesis is a speculation on, and exploration of, the inherent potentials and implications contained in the notion of a continuous circular design activity. The thesis constructs the arguments for, introduces, explores, and tests the conceptual framework of the *Persistent*

*Model* in which design activity is not arrested in relation to the constructed artefact with which it is associated. Rather, it is allowed to persist, allowing a direct dialogue between representation and the represented.

The implementation of this framework leads to artefacts and spaces that are qualitatively different, as *Persistent Modelling* provides a ground upon which particular time-based attributes can be exhibited – most notably, adaptation.

The proposition of this framework necessitates a re-examination of the process and concerns of architectural design.

The sub-text of the thesis is to remember that the activity of design is itself designed.