



**KTH Architecture and
the Built Environment**

Architectural Prototypes: Modes of Design Development and Architectural Practice

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av Jonas Runberger

Granskare:

Filosofie Doktor Michael Speaks, Dean för University of Kentucky
College of Design, Lexington, USA

Huvudhandledare:

Docent Katja Grillner

Biträdande handledare:

Professor Ulrika Karlsson

Filosofie Doktor Tim Anstey

Professor Jerker Lundequist

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Abstract

This licentiate thesis is design driven, partly based on case studies in the form of experimental design projects developed mainly within the research and design collective Krets. It constitutes the first half of a PhD project that studies new technologies and techniques within design processes and the production of architecture, especially in relation to collaborative models. Specific aspects of architectural design processes are formulated, tested and evaluated within this framework. Key elements within the design process are targeted, through their impact on social, cultural and technological aspects. The continuous tool for this investigation is the prototype, which operates as a base for collective work, a probe, a tool for communication and an archive. It is not necessarily a physical artifact, but can also exist as a system or a set of rules. It is important that the prototype becomes a protocol for communication between collaborating interests in the design process.

The thesis is divided into two parts; the Contexts book and the Projects book. The two books are intertwined through a system of references, and are meant to be read together. The Contexts book explores contemporary discourses within the field of digital and projective design and new forms of architectural practice through two articles. The Projects book is deploying selected parts of design processes from projects developed by the author in collaboration with other architects as well as student work from studios taught by the author, and traces a discourse based on advanced parametric design methods and architectural effects.

Keywords

architecture theory, design theory, prototype, performance, effect, affect, architectural design project, parametric model, design solution space, fabrication, production, industrial process, research by design, digital practice, projective practice, generative components, krets, parcel, splinegraft, urbantoy v.2, informed modularity, architecture information

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Environment
School of Architecture
Royal Institute of Technology
SE100 44 Stockholm
Sweden

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