Project plan

Design rationale in fashion design – unfolding the design process in fashion design through practice based design research.

Abstract
On the international and domestic research scene fashion design methodology is a highly neglected field of research. In this project we propose to work at unfolding the design process using design rationale techniques in design practice as a foundation for the development of design methodology specific to the fashion design process. The relation between function and aesthetics of use is basic in all design, and this is especially true in fashion design, where the expressions of use are key elements in the acts that define intended, as well as actual, use. The basic methodological challenge is to make this relation explicit in the conceptual and systematic framework that provides a foundation for fashion design practice.

1 Introduction to Research Area

1.1 Design Research and Design Methods

During the last decades, considerable attention has been called to various ways of defining design as an academic discipline and to introduce design research as an area of academic research. (Cf. [Buchanan], [Roth]) This attention forms a wide-spanned movement, ranging from the design methods movement in the 1960's via focus on the design process as articulated by writers like Schön [Schön] to today's ideas regarding action oriented and practice based research in which the development of the practice as such is in focus as a research issue.

The scientific methods utilised within this movement range from pure experimental design – in many ways similar to experimental work in mathematics and physics – where focus is on the constructive aspects of the design practice to analytically oriented methods that utilise tools borrowed from social sciences, behavioural sciences and cultural studies. The task of design is to define the concrete expression of things and systems; to solve problems, to meet user requirements, to express ideas, to define new things etc. A basic problem in design practice is the paradox it rests on; we are supposed to express something – the meaning of which we interpret through the design itself. (Cf. [Jones])

We try to handle this in a systematic manner throughout the design process, from the brief to the final definitions, using various work methods; the common foundation that practice rests on. It is a constant challenge for design research to further develop this foundation. It might be a question about methods for the design and development of correct software, which includes the design of programming languages and the development of suitable programming methodology, or methods for expressing the functionality of products in use, i.e. product semiotics or methods for design management in various areas of design practice or fashion design methods.

1.2 Textile Design Research

Textile- and fashion design is in a specific sense product design defined by a given interpretation of the three design coordinates usage, materials and technology – with close links between design research and research in specific areas of social sciences, economics, technology and engineering.

1.2.1 The Swedish Scene

Academic textile design research is undertaken at three research institutions in Sweden, with approaches ranging from purely artistic ones to inter-disciplinary ones: University College of Arts Crafts and Design Stockholm, School of Design and Crafts, Göteborg University, Swedish School of Textiles, University College of Borås. Neither of these schools are concerned with fashion design methodology in specific, only a rather resent increased interest in sparse flora of design theory and methodology with an architectural bias can be traced (C.f. [Lundequist, Ullmark]).

1.2.2 The International Scene

New areas of research are currently underway on the international scene. These areas deal generally with combining design issues, fibre technology and textile engineering in joint efforts to create brand new textile products and processes. New techno materials, computational technology are now being integrated into clothing. The focus is on “smart” wear, “intelligent” clothes, “dynamic” and “adaptive” textiles. This is presently a focal area where computer science and development of computational technology converges with research in fibre technology and textile design. It is also an area where a future close collaboration between the computer industry and the textile industry will be of basic importance. Sportswear design and applications to space technology and military clothing are important driving forces. (Cf. [O´Mahony, Braddock], [Braddock, O´Mahony]). Among the important academic research centres we find MIT Media Lab, Georgia Tech, The Wearable Lab at ETH Zürich etc.

Another second theme, mainly centred around institutions such as FIT and London College of Fashion, is a predominantly sociological, cultural and historical approach to fashion, (Cf. [Brydon, Niessen], [Lehmann], [Troy]), which next to smart textiles can be said to be the second largest research area concerning fashion. A third, but still smaller one, is the recent, but still increasing, interest in fashion from a marketing and management point of view (e.g [Burns], [Frings]).

1.3 Fashion Design Research

What is fashion? In a useful definition, given that we talk about garments, fashion refers to a certain logic of wearing expressions, i.e. the way in which a garment express us. The product in the fashion design process can therefore not be defined in purely functional terms. Notions like usability and users are not easily applicable. Industrial design methodology based on function- and usability analysis is not directly suitable as support for the fashion design process. Basically, what is lacking is the conceptual framework that models central components of the design process, relating to the expressional shape of a garment.

The need for a deepened understanding is even more apparent when this shaping not only deals with the product itself, but also with the acts of wearing, to define fashion through contextual connections between garment and movements in social and spatial structures. As an empirical phenomenon – and problem – this has been studied in numerous sociological, psychological, ethnographical, economical studies, but there is little done in design research as to develop the practice itself.

1.4 Fashion Design Methods

Methodology constantly changes within a practice; new technology introduces new ways of working, we constantly look for efficiency etc. Such development always has its – implicit or explicit – foundation in general pictures of the design process itself.
What is particular in the textile- and fashion design process? The relation between function and aesthetics of use is basic in all design, and this is in particular true for fashion design, where the expressions of use are key elements in the acts that define intended, as well as actual, use. The basic methodological challenge is to make this relation explicit in the conceptual and systematic framework that provides a foundation for practice.

In areas such as traditional industrial design engineering, industrial design and also in interaction design etc there has been extensive development of design methods and theories about the design process (cf. The design methods movement). There are attempts to transfer this type of methodology to the area of fashion design (Cf. [Lamb, Kallal], [Regan, Kincade, Sheldon]), but very little is done to build a specific methodological foundation for the fashion design process except for explicitly business oriented models (e.g. [Carr], [Burns], [Jarnow]). In fact, the overall structure of contemporary fashion-design methodology has taken its bearing in the direction of the early design management discourse (Cf. [Carr], [Tate], [Potter], [Easey]) without the integration of a creative design methodology in itself; a methodology of which there are just few more or less blunt accounts (e.g. [Sinha], [Lacroix], [Mulvagh]), lacking a necessary theoretical level in order to make them generic models.

2 Project description

To define models of the design process and develop design methods is a theoretical work, nevertheless is this work grounded in practice and intends to result in work methods that develops practice.

Investigations as to answer the question “what is particular in the fashion design process?” can be carried out in different ways:

(i) We may conduct empirical investigations, participating, creating, observing and learning how designers work today. The problem with that is that it does not tell us how to develop new methods that may change present practice.

(ii) We can study the question as a matter of principle through logical and theoretical investigations. The problem here is the distance to practice. There is still a gap we need to bridge through interpretation in practice, i.e. through implementation.

The basic here is to combine these approaches integrating theoretical work in the design process; to unfold the design process using design rationale techniques in

design practice as a foundation for the development of design methodology specific to the fashion design process.

By “design rationale” we simply mean a method of designing together with motivations of basic choices in the design process. Design rationale, more specifically, concerns documentation of the stages and steps of the design process where history and context of the design is recorded and basic choices are given a systematic motivation. (Cf. [Moran]) The idea is to use design rationale techniques to trace and identify basic choice points in the design process, and through a structural analysis define models that describes the logic of the process. Such a model can then be used as a logical framework for the development of design methods providing a foundation for practice.

Defining models and methods is design. Outcome of design work in this project will thus be twofold: the design of garment and the design of models providing a logical foundation for the process itself. An initial hypothesis – or axiom – here is that this will provide a rich context for the development of methods that define practice in a clear and distinct manner; of course well known in industrial design practice and in art practice. But it is so far something that is less developed in fashion design.

Project work will be carried out as part of ordinary design projects at given companies and done in two iterations.

2.1 The Organizations: JC AB and Swesco Textile AB

The project is based on cooperation between The Swedish School of Textiles and two – with respect to design process – rather different businesses: JC AB and Swesco Textile AB. The main difference between these businesses that is of specific interest are their organizational design structure which can be said to mark to positions on a diametric scale in between which the majority of Swedish as well as international fashion houses and business find themselves: that between the dominant designer and that of the collaborative design team(s). Whereas JC AB will provide the research with an organization mainly built by more or less democratic design teams, Swesco Textile AB provides the empirical foundation for an organization built around the single auteur, the one designer. As such, research together with these two kinds of keystone fashion organizations, providing an equal difference in its fashion design methodology, will ensure a broad span in design processes.

Each organization will be approached separately in order to achieve and understand their individual differences as well as to guarantee their discretion respectively. There will thus be two – quasi – working groups – one for each company – however, intersected by the research group at the School of Textiles. Participants from academia will all be designers to guarantee that communication within working groups will be on a professional high level. Both research processes will be equally substantial for developing of the generic models and methods (see section 4 for further notes on methodology).

First iteration:

(a) Development of initial design rationale methods on basis of general models of the industrial design process (Cf. [Jones]),
(b) First design – garment – using design rationale methods from (a),

(c) Analysis and definition of models, revisions of design rationale methods.

First round of workshops; development of methods on basis of models from first design iteration.

Second iteration:

(a) Second design – garment using models and methods from first iteration,
(b) Analysis and revision of models.

Second round of workshops; revision and refinement of methods from first iteration on basis of models defined in second iteration.

One of the major problems in developing design practice and design management is to know how to turn analytical empirical material into effective work methods. This is also what makes practice based design research particularly important. To do research as part of actual design work is one way to further this type of research.

4 Research approach and its relation to state of the art within area

We refer to the basic research approach of the proposed project as *practice-based fashion design research,* which in other words can be expressed as a research methodology combining a grounded (cf. [Glaser, Strauss], [Strauss, Corbin], [Gustavsson]), action (cf. [Rönnerman]), experimental (cf. [Eneroth], [Cohen, Manion], [Levine, Parkinson]) and creative c.f [Bergson], [Larsson]) research approach. Therefore it is rather a case of doing methodology than applying it discursively (cf. [Baudrillard], [Göranzon]. Specifically, we view this as textile- and fashion design research *by* design and *for* design:

- It is *practice-oriented research*; research aiming at *developing* design practice, i.e research *for* design.
- It is *practice-based research*; research in which experimental design is a central modus operandi, i.e research *by* design.

In practice-based design research, as we view it, all of these methods may be adopted, and adapted, to serve the basic purpose of developing the design practice itself. Rather than gaining verifiable knowledge about nature or society as it is, the objective will be to further the design profession through the development of new design methods, new design programs, and new design materials and techniques. (Cf. [Glanville], [Grillnert, Ståhl], [Roth], [Seago, Dunne], [Swann]).

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