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Hiort af Ornäs, Viktor; Kristav, Per

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Exploring negotiated determinants of product form

Viktor Hiort af Ornäs; Viktor.Hiort_af_Ornas@design.lth.se
Per Kristav; Per.Kristav@mkon.lth.se
Dpt. of Design Sciences, Lund University

Abstract
This paper describes work in progress exploring influences of product form in design practice based on interviews with five industrial designers in southern Sweden. Participants were asked to list and compare different designers, and to explain how their respective characteristics affected product form. The findings indicate designers as shaped by traditions and acting not only to serve their clients/employers, but also with respect to others in the profession. Designers make decisions on strength and novelty of expressions, but behind the seemingly rational product design process, designers interpret and perform practices based on their own agendas, which may sometimes contrast commercial goals.

Keywords: Determinants of product form, designer practice, designer roles, personal constructs

Introduction

The form of a product can be said to be a meeting point between the intent of a designer, and the response of a user (Monö 1997; Crilly et al. 2004). On one hand the designer acts under a number of constraints, and the other the product elicits a number of responses (Bloch 1995). On a strategic level, companies may strive to make a new product appear similar or different with respect to a current product portfolio, prior products as well as products of competitors (Person et al. 2007). Fitting a product to company objectives from this perspective implies alignment of stakeholders, from finding out what people want, through development and delivery of a product. To support this, there are tools to measure attributed product meaning, allowing for comparison against strategic intent, e.g. brand values as well as various methods that aim at sensitizing designers to values of target groups (personas, context mapping, mood- and lifestyle boards etc.).

Design is often presented as a seemingly rational process, a series of “boxes and arrows”, see fig.1., depicting activities (e.g. analysis, synthesis, evaluation) or process stages (e.g. product specification, conceptual design, detail design etc.). Less visible in these models is often the people who are involved and the actual products they produce. There seems to be a tacit assumption that the designers’ objectives are in fact aligned with the objectives of the company / client, and that if they are not, it is down to misunderstandings/ bad briefs etc. The skills, preferences and values of the individual make a difference in any process. A persons actions are, at least in part, likely to be determined by how he or she defines herself, how she looks at the roles of the profession role models, traditions and so forth.

Fig. 1. Some design process models

The long-term objective of this research is to gain further knowledge about the
complexity of roles and objectives that characterise practice beyond idealised models of the design process.

As it was not possible to within this initial study document designers’ actual work, we rely on a question-based approach. Asking designers about their own processes on issues that relate to self-presentation etc. would most likely yield rationalised descriptions. We here instead focus on designers’ statements about others, aware that these beliefs are likely to reflect how they see their profession rather than how they themselves approach design.

More specifically our goal in this paper is to explore how five interviewed designers talk about other designers, what these designers do, and how this affects product form.

**METHODS**

Two female and three male active and experienced industrial designers operating in the south of Sweden were interviewed individually. The interviews followed a three-step procedure:

1. **Elicitation of elements.** In interviews participants were asked to name nine different designers according to a question set, see table 1. These were to reflect various characteristics in order to get at a diverse set of starting points. At the beginning of the interview the answers where written on separate notes, see fig 2, and the nine initial questions were put away.

2. **Elicitation of constructs.** The participants were presented with triads of notes (elements) and asked to describe "something that two of the designers shared that set them apart from the third", see fig 2. These procedures, originally used in the Role Construct Repertory Test of Kelly (1991), aim to capture attributed meaning in terms of how a person construes roles of different actors. In this study these actors are the nine designers that are elicited in step 1. Combinations of these were systematically compared following procedures suggested in Jankowicz (2004). Each interviewee was presented 12 different triadic combinations of notes with designer names. For each triad, the interviewee was asked to group the two of the three paper notes had in common that set them apart from the third. One construct per triad was documented in a protocol.

3. **Elaboration of the constructs.** The participant was then asked to elaborate verbally over each construct answering “What are the effects of this for product form?”.

Each interview lasted approximately 1.5h. The interviews were recorded and later transcribed. Both constructs and the interview material were then analysed by a bottom-up content analysis procedure to develop categorisations, which were then applied to the material top-down.

<table>
<thead>
<tr>
<th>Table 1. Instructions used for eliciting elements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name a designer...</strong></td>
</tr>
<tr>
<td>1.    ...you consider have improved product aesthetics</td>
</tr>
<tr>
<td>2.    ... you find designing dull looking products</td>
</tr>
<tr>
<td>3.    ... you find designing artistic looking products</td>
</tr>
<tr>
<td>4.    ... you consider self-centred/wrapped up in her/him self</td>
</tr>
<tr>
<td>5.    ... you find working in a formalised and structured way</td>
</tr>
<tr>
<td>6.    ... you experience design primarily for the commercial goals of companies</td>
</tr>
<tr>
<td>7.    ... you find designing mainly on intuition</td>
</tr>
<tr>
<td>8.    ... you consider having design/form integrity</td>
</tr>
<tr>
<td>9.    ... who is idealistic</td>
</tr>
</tbody>
</table>
RESULTS & ANALYSIS

Participants brought up a range of different designers, with some occurring more frequently, see fig. 3., using constructs primarily focusing on either the designer or the product, see fig. 4.

In the construct elaborations, participants to a greater degree focused on context, strategic decisions on form, and the relations between different stakeholders. A description of that material follows below. In the following text the five interviewees are quoted as [I1], [I2] etc.

The designer as shaped by and acting in a context

Several participants commented on the background (e.g. nationality, gender, educational background in architecture or design) of designers as shaping their values and in the extension their products.

Participants also discussed how certain values may become more prevalent at certain points and the styles of things as products of their time. The idea of the commercial is not always the ideal: “In 1975 the left wing was dominant at all positions in culture and TV. This is behind the solid Swedish grounding in handicap/impairment. It was considered to be unworthy to work with commercial things back then. If you were to work with design you should work for people who either had problems with visions, mobility ...”(I4).

Designing as communication

A product's form follows not only from business goals. Making decisions about product form implies striking a balance between different objectives such as...
designer desired expression, strength of expression, target group size and timelessness. (I5) puts this as “I have a level that I want to be on, what I think the product should look like with my references, how I work and what I believe. But the expression is always toned down to reach a broader audience”.

Form is partly determined by what is to be communicated through a product; e.g. its function or certain values. The expectation to communicate specific values constrain what expressions are permissible. (I1) exemplifies this with sustainable design. “This in turn has actually created an aesthetic. Very few of these players can develop a product that feels exclusive and expensive, which is also very environmentally friendly. Instead, they play on ‘recycling brown’. It must signal in terms of telling that it is a recyclable product. It is about credibility”. Participants also commented communication through products as interesting in itself; making reference to ideas or indicating possible behaviours.

Designers may need to strike a balance between subtle and strong expressions. In relation to Dieter Rhams, (I3) comments “object for its own sake, this is me and my function, that’s what the product says. But it does not tell anything more, it’s very tight and functional, special. It could become quite distanced from the user. But there is also a greater chance that more people can take in something that is so neutral in its design. It lasts longer”. (I2) describes that “Those who have strong expressions have got huge attention /.../ The more restrained do perhaps not generally come through as well”.

Strong expressions give a designer attention. Excessive expressions were however also commented as something to be scorned upon; “It gets pretty brutal, a cruder expression, what is emphasised becomes dominating at the expense of the whole, overrunning the other expressions of the form. He [George Barris] pinpoints the expressive and goes for it. He plays a giant crescendo, and does not tone down so that it harmonizes” (I4).

There may be a personal challenge in creating something as simple as possible. (I4) comments Jasper Morrison: “I also suspect that it is a personal challenge to make as pure a form as possible. As much as possible with as few resources as possible. Clean up. And somewhere you mix an expression with a function. And then he will be so frivolous as he can be, that green couch will be a graphic expression”. See fig. 5.

Fig. 5. Three Sofa De Luxe by Jasper Morrison

Participants also discussed needs to balance references to prior products and novel expressions. “As a designer you stand on the shoulders of all previous generations of designers. You try to relate to what was done before and see if you can find something to add. The idea is to take advantage of all the experience available and then charge an object with all that experience” (I2). (I4) comments Luigi Colani: “... he took the rock solid organic expression from the animal and applied it to a technical device. He set the trend for all things afterwards...”. However, novel expressions do not necessarily equate commercial success; “It is rarely those who are in the front ranks of a certain shape development who win commercially, rather it is the ones that make the cheaper copies that make profits” (I1).
Stakeholder relations

There is a need to consider needs of and relations to different actors, including the client/employer, manufacturers etc.

Working against a specific target group, the designer forms an idea about what they like and the target group may become visible in the design: "If you line up a number of products you can easily see which ones have the same target audience" (I5). However, appealing to target group desires was not only commented in positive terms: “Commercial form flirts with some sort of understanding between me and the customer that somehow makes the communication a little to cheap. /.../ It is based on something desirable that I can throw in because I know I can get the customer to shop based on that particular thing” (I4).

The designer may also have to relate to others on a design team; "If there is only one person, that person's view on what the target group wants is the final word. But if four designers do it, four different thoughts and perspectives meet. I think that leads to a better and more worked product" (I5). However, it is not certain that the individual manages to make his or her perspective heard as there may be a hierarchy within certain design teams. "Philip Starck has a team under himself designing in his name. Then they have to try to imagine how it would look if he designed it, his characteristic features. Then the team spirit becomes lousy, you become invisible in the team. But if you work together it becomes better, then you are part of the brand rather than laying down as a rug" (I5).

Aside from commercial objectives, the designer may also have an agenda regarding personal preferences and position within the profession. It may be strategically important to conform to the ideals of: "Being cynical, very much of what we do we do because we are educated in a group which has a certain set of norms and values. If you want to continue to belong to this group you have to deliver the same sort of ideals" (I1).

There may be an expectation that designers should be visible in their products; “as an industrial designer you want to manifest yourself in the product. Every product is super important” (I1). Designers may in some cases care more about their own signatures than those of the company, not only for immediate gratification but as a famous name may also legitimise a design. “Those who have a strong personal brand often have a strong argument for a certain design. They can then be bolder. A strong brand equals that the product and its details are okay. That they know what they are talking about. It does not mean that the quality is better or worse, just that they have an easier time arguing their case” (I5).

The ability to decide the agenda seems to depend on credentials. “It is perhaps easier to have integrity early in one’s career or when one are late in one's life. Then you have so much experience that you can rely on your gut feeling” (I4). However, also other factors may come into account in battles of will. ”Mendini is considered to have pushed boundaries of what a product can be. [he is] an Italian with a deep theoretical education - a theorist. /.../ Theorist can do what is frivolous with a smile in his eye, but it's also quite risky in the design industry. But Mendini can back it up here with three A4 pages, he can give the theory behind it” (I4). A designer can use theoretical connections to help justify a design by providing a rationale.

Approaches, virtues and vices

While providing a rationale was commented as a way of justification, comments on rational approaches were more diverse. (I3) describes how there are benefits to structured approaches: “working in a structured way enables you to work better in groups, and you then can get ideas from various sources which then leads to the best possible outcome. /.../ It is also a matter of efficacy, being focused. / .../ You need to devote yourself to work and in my world that is structure; getting the time to go over details”.

There is a however a subjective dimension to aesthetics and rationality, it is not only seen as something good, this as it may
hamper passion, “I rather believe that an idea of rationality guides the development of a product in a negative way. I think we need a little poetry in our products as well. /.../ There is a vitality which is lost when it panned through the design methodology and the product development process” (11). Experience of seeing and judging may be higher valued than rules, and the possibility to know good form is not necessarily about truth: “It is probably not absolute knowledge, but more of a reflection, knowing what options there are./.../ I think there is a parameter to aesthetics that is completely subjective. /.../ Everyone has at all times tried to understand, trying to find some rules, but it’s clear that there are no such, these principles presupposes that they are handled by a person with very good design ability; experience in seeing and judging” (12).

The artistic approach affects outcomes as well as how decisions are made. (14) comments the intuition of Philip Starck “Those gnomes, I don’t think they happen as a result of research. You cannot extrapolate and take the prior 10 things as a starting point and end up with a gnome with a table over its head”. See fig 6.

![Fig. 6. Philippe Starck’s Gnome, commented by two of the participants](image)

Passion and thoroughness seem to be highly valued among participants. Genuine engagement implies not leaving any part of form to randomness; “thought through precise results. One does not give up until the outcome is what you want it to be. Form-wise, it is about not leaving anything to chance. You follow up all the way from idea, as far as one can go” (14). This was also commented in relation to an artistic approach “That one takes the time to think through, develop and investigate different options, that you also have visualized and used a process that allows you to navigate your way in as to deliberately seek a form of expression between proportions. To take the time and place emphasis on design issues. That you do not skip that phase of product development process which may otherwise go very quickly and result in very flat and bad products” (12).

More time may equal a more thoroughly designed product, either through additions or a more distilled form. “I can see two ways this can go. Either it becomes very stripped down, one works longer with distilling the form, notice what should go. The opposite is that it becomes overdone, that one has time to add more to the form or functions” (15). However, participants commented that commercial projects do not necessarily leave room for thorough design; “… commercial motives, ‘money on the table’, I think it leads to quite many quick solutions visually and form-wise that are not all that well thought through” (15).

There may be an aversion to dressing up a product with styling. “Many companies let the designers come in too late in the product development process, and that leads to design only as a make-up. And that could mean that we should try to salvage a bad idea, by drawing focus off the bad and showing something else on the product” (12). Commercialism can be seen as an appeal to larger audiences, but also as distant, dishonest, management of impression: “you can sometimes see it in the product, it looks fake, dishonest. For example, trying to imitate materials, putting on a metal coating on a plastic only for it to sell, to be commercially successful” (13).

**DISCUSSION**

Decisions regarding novelty vs. prototypicality, designer signatures vs. brand signatures etc. are in themselves not surprising. That rational methods and
process descriptions do not necessarily match practice is hardly surprising, and has been elaborated by e.g. Gedenny (1998). However, the limited extent to which participants reasoned using terminology such as requirements, conceptual design etc. is somewhat striking.

Instead their descriptions often concerned what we interpret to be social practices. Designers are shaped by and act in a general context and do not define themselves and their work mainly through the rational objectives of businesses but through industrial design practice and relations to peers and role models. They perform an act, cf. Goffman (1990), well played as expected of them, serving commercial needs and mastering the rational terminology of the trade. However, behind the scene and between the lines they also have an agenda of their own where personal factors affect product form.

This agenda, coloured by personal convictions, motivating the (artistic) designer, has to be cleverly negotiated within the everyday design practice. The designer needs to be equipped with a culturally imprinted sensitivity to capture and interpret the prevailing norms of the design practise in the wind of the day, cf. Berger & Luckmann (1991). The design outcome has to be presented with confidence and credibility. This negotiation takes place in a wider context, where the designer needs to balance internal motives of integrity, glory and challenge against external motives such as profit, stakeholder input, brand values and product requirements. Designers act with respect to peers in their profession; they position themselves on the field of industrial design and product development, cf. Bourdieu (1984). The ability to negotiate their position is dependent on their current status. In the interview material, the base from which the personal agenda of the designer may be realised is defined and determined mainly by three factors. Firstly the designers' level of integrity within the design practice. Personal dispositions determine whether the designer take on the proposed approach of design work in a design team or in a company with lenient docility or creative opposition. Secondly; if opposition is taken, then this oppositional argument is interpreted and treated depending on the level of rationale. Rationale for a certain product form may be based either in relation to design historical context, or on practical and logical reasons. Thirdly, credentials strengthen an argument for getting a product form through the product development process. According to the interview material, credibility can be obtained by either long design practise or a strong personal brand. Strong form identity seems a necessity to obtain a strong personal design brand.

The results presented here are based on interviews with a small sample, and do not necessarily reflect the profession as a whole. Furthermore, the data collection procedures lead to anecdotal examples rather than deep descriptions of practice.

As participants were somewhat concerned with self-presentation, the question could be raised whether they gave certain answers in order to comply. The construct elicitation format and the elaborations on implications (steps 2 & 3 in the interviews) were done in an open fashion to avoid interviewer bias. However, the initial questions used to identify designers to discuss probably affected the material. Participants commented on famous designers who's work and products are probably atypical for most designers. However, we believe these to serve as role models, shaping how people look at the profession.

The results should be seen as challenges to rational strategic approaches to commercial design, and limitations in how design is portrayed. The stories shared by the interview noted portray underlining causes affecting product form beyond what could be retold in this paper. A pattern also emerged in factors brought up by participants. However, from the limited material we can see that the challenges exist, how widespread they are remains unknown. The material will be further analysed and key issues will be explored in future data collection.
REFERENCES


