

Design Methods and Critical Historiography: An Example from Swedish User-Centered Design

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Given the importance of notions such as method, methodology, and process in contemporary accounts of what designing is about, it is intriguing that more explicit accounts of how the actual designing happens, such as critical descriptions of the design methods, are largely missing in design histories. The history of design has largely been written along lines set by art history, giving prominence to certain designers and their work. Although such accounts sometimes include aspects of design practice and how designers work, much of what practicing designers care about themselves is left aside in these stories, such as constellations of design teams, how certain ways of working came about, how they evolved, how methods formed, or what the design processes looked like. To illustrate: How many designers actually know how the method of brainstorming came about and gained traction in design, in what context it was first created, or how it has been used and evolved? How about the origins and histories of the various kinds of user tests, iterative prototyping, scenarios, or personas? Sometimes even central notions that we use to articulate design, including many of the design methods we use on a daily basis, appear as if they lack history, as if they are somehow independent of context and exist outside the temporality that otherwise is so important for understanding what people do, their values, and ideas.

To exemplify, consider the institutional context in Sweden, where one frequently encounters notions such as “form-giving” and “user-centered” in descriptions of historically significant trajectories in industrial design.¹ Looking toward the form-giving component, one sees an extensive (yet in scope and selection clearly constrained) selection of designs and designers forming narratives typically starting in the early twentieth century. While the earlier canons, centered on the aesthetics of good design, can be critiqued and questioned from several perspectives, there is at least something there we can relate to. It might not be the only history we can tell, but there is something we can affirm, reject, complement, oppose, and so on.²

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- 1 For example Jonathan M. Woodham, *Twentieth Century Design* (Oxford: Oxford University Press, 1997); Lasse Brunnström, ed., *Svensk industridesign: En 1900-talshistoria* [Swedish Industrial Design: A 20th Century History] (Stockholm: Prisma, 2004); Kerstin Wikman, *Formens rörelse: Svensk Form genom 150 år* [Form Movement: Swedish Form Through 150 Years] (Lund: Carlsson, 1995).
 - 2 Cheryl Buckley, “Made in Patriarchy: Toward a Feminist Analysis of Women in Design,” *Design Issues* 3, no. 2 (Autumn 1986); Kjetil Fallan, *Design History: Understanding Theory and Method* (Oxford: Berg, 2010); Grace Lees Maffei and Rebecca Houze, eds., *The Design History Reader* (London: Bloomsbury, 2014); Tony Fry, Clive Dilnot, and Susan C. Stewart, *Design and the Question of History* (London: Bloomsbury, 2015); Kjetil Fallan, ed., *Scandinavian Design: Alternative Histories* (London: Berg, 2012).

As we turn to notions of user-centered design, of course we encounter objects claimed to be examples of such ways of designing, but we very rarely see this described in terms of method and process because it is still primarily the results, the designs, that are accounted for in these design histories.³ We do not have a corresponding history told on basis of design methodology, about what forms of involvement, participation, and so on were employed—although this would be a rather basic issue when writing a history about a kind of design considered to be user-centered. For such accounts, we instead have to turn the annals of design research, and such histories typically only begin in the 1960s with phenomena such as the design methods movement in the United Kingdom because that is the time when design research as we now think of it seems to have begun.⁴ As stated in Jonathan Woodham's *Twentieth Century Design*: "The significance of design methods as a means for solving problems systematically emerged as an area of great interest and concern to more progressive factions of the design profession from the early 1960s," and furthermore that

In the early 1960s there was an increasing range of potential tools to aid the rationality of the decision-making process in design. As a result many designers were eager to reconcile emergent disciplines such as ergonomics, anthropometrics, cybernetics, marketing, and management science with design thinking. In such shifts away from the intuitive, micro- rather than macro-, means of problem-solving designers began to make use of interaction charts and matrices.⁵

So with the occasional exception of more general remarks about process and methodology, we tend to have histories about designers and their design that leave the details of methods and processes—and therefore largely also the actual practices of *designing*—outside the narratives.

The specific historical contexts and situations that brought about the ways of working that still today largely structure the way we think and do design are—typically, and not very surprisingly—something that designers are not aware of. Perhaps one could argue that this does not matter so much, as every design situation is unique and thus using a method is an act of creation as much as it is a matter of applying something already existing. Furthermore, one might add, these methods are not that specific in the first place. We persist in believing that our design methods are somehow neutral with respect to context. But how could something used to structure and support creative and collaborative aspects of design—after all, that is *why* we use them—ever be

3 See Christina Zetterlund, "Just Decoration? Ideology and Design in Early-Twentieth-Century Sweden," in *Scandinavian Design: Alternative Histories*, ed. Kjetil Fallan (London: Berg, 2012), 103–16; Grace Lees-Maffei, ed., *Writing Design: Words and Objects* (London: Berg, 2012).

4 Nigel Cross, ed., *Developments in Design Methodology* (Chichester: John Wiley & Sons, 1984).

5 Jonathan Woodham, *Twentieth Century Design* (Oxford: Oxford University Press, 1997), 180.

neutral with respect to crucial matters such as perspectives, values, or outcomes? Rather, we have to accept that design methods bring something to the design situation, and that this something has a history we need to understand if we are interested in not only what they do for us but also what they do *with* us. It is about time we started to articulate critical histories not only of design output but of design methods and methodology, of all of what we so happily point to when we say that design has turned its attention from product to process.

In what follows we explore this idea about a potentially important difference between design histories told on basis of what designs have been made (i.e., designers and their works) and histories told on basis of designing (i.e., design methodology and methods). To illustrate this approach, we look into the roots of user-centered methodology in Swedish industrial design.

Origins of Scandinavian User-Centered Design Methodology

In narratives about the process-based and user-centered design that has had a strong presence in the Scandinavian countries, the late 1960s and early 1970s are often pointed to as the period in which this approach to design practice was formed.⁶ In the context of our institutional history at Umeå Institute of Design, for example, this is described as a turn toward a new kind of user-focused design process emerging within the design profession in Stockholm in the early 1970s:

The differences in the design process became apparent when a group of Stockholm designers changed their way of working in the 1970's. A centre for this regeneration was the Ergonomi Design Gruppen. . . . Ergonomidesign's industrial designers collaborated with researchers in the workplace and went out among users to find out how they worked. This was remarkable for two reasons. First, the designers were now working with the people using the products, rather than those who purchased them or made decisions about their manufacture. Secondly, they were not content to ask questions about how users wanted their tools to be. Instead, the designers studied in detail how users worked during an entire workday. . . . From these studies the designers drew up proposals for solutions, which the users were able to examine and suggest improvements on. They developed usable working models or prototypes, which they handed over to the users with a request for feedback.⁷

6 Ida Kamilla Lie, "'Make Us More Useful to Society!': The Scandinavian Design Students' Organization (SDO) and Socially Responsible Design, 1967–1973," *Design and Culture* 8, no. 3 (2016).

7 Norbert Andersson, *Designed in Umeå: Industrial Design Education at the Umeå Institute of Design, Sweden* (Stockholm: Infobooks, 2009), 23 ff.

The tendency to turn toward a more user-centered design process opened increased discussions around the role of design and designers in relation to objects, people, and environments and questioning who “the user” might be in this context: “At that time there was an active interest in opposing social injustice and an awareness that the tools people used in hospitals and factories were badly suited to their users and often resulted in industrial injuries or lifelong trouble with joints.”⁸ Increasing numbers of designers had grown tired of their role in consumer society and were looking for areas of social commitment where they could give expression to a higher level of working morality than merely earning money.⁹ In the journal *Form*, published by the Swedish Society for Crafts and Design, we can trace these developments through the themes increasingly present in the issues of the 1960s, ranging from sustainability and consumerism, living with disabilities,¹⁰ design for industrial workplaces, hospital design from a patient’s perspective, and design for what was referred to as the third world.

When looking at historical accounts of Swedish and Scandinavian industrial design, it seems as if there is a longer continuous trajectory with respect to form in comparison to design methodology, as the latter seems to emerge in the 1960s and 1970’s. However, the ideas, thought styles, and practices that come together in this shift toward a user-centered design process most likely emerged from societal and historical contexts that are broader and longer than these two decades.¹¹ Indeed, we would like to argue that if we look outside these more established narratives of industrial design, we find that the origins of such approaches to design were formed much earlier than this.

In a Swedish context, the idea of *use*, formulated around 1900 by Ellen Key and Gregor Paulsson, for example, brought forth a function-based aesthetic linked to an ambition to reform everyday life through better designed everyday objects, furniture, and dwellings.¹² The focus on use in relation to function and form grew stronger in Swedish modernist design discussions and design practice toward the mid-twentieth century, but without necessarily explicitly addressing the issue of who the actual user might be, or if and how the aspects of use and usability should be included in the design process. Searching back in time and into the contexts that brought forward a modernist aesthetics celebrating notions of function and efficiency typical to the designs included in the traditional canon illustrating Scandinavian design, however, we find several important examples also of methodology.

8 Andersson, *Designed in Umeå*, 4.

9 For instance, in this context Victor Papanek’s internationally well-known *Design for the Real World: Human Ecology and Social Change* (New York: Pantheon, 1971) was first published in Swedish as *Miljön och miljonerna: design som tjänst eller förtjänst* (Stockholm: Albert Bonniers Förlag, 1970). This title more literally translates as (although then missing the poetics of the original) “The Environment and the Millions [referring to money, not people]: Design as Service or as Profit.”

10 *Form* 10 (1968), “Att leva med handikapp” [To Live with Disabilities]. This was a special issue of the journal *Form* produced as material aimed for study circles interested in understanding the constructed environment. The study series was themed “Active Perspectives on Environments” (*Aktiv miljösyn*), and was made up of twenty-four slides, twenty-four text cards, six study pamphlets, and different exercises or tasks. The cards included imagery and presentations relating to disabled persons’ living conditions, tools, rehabilitation, and clothes.

11 Arthur O. Lovejoy, “The Historiography of Ideas,” in *Essays in the History of Ideas* (Westport CT: Greenwood Press, 1978), 1–13; Ludwik Fleck, *Genesis and Development of a Scientific Fact* (Chicago: University of Chicago Press, 1979); Michel Foucault, *The Archaeology of Knowledge* (London: Tavistock, 1977).

12 Ellen Key, “Beauty in the Home” (1899) and Gregor Paulsson, *Better Things for Everyday Life* (1919), both in Lucy Creagh, Helena Käberg, and Barbara Miller Lane, eds., *Modern Swedish Design: Three Founding Texts* (New York: Museum of Modern Art, 2008).

1940s User-Centered Design in Sweden

Searching for early instances of the ideas presented here, consider Hemmens Forskningsinstitut, HFI (the Home Research Institute), founded in 1944:

The Home Research Institute (Hemmens Forskningsinstitut, HFI), founded by the Swedish housewives' and home economics teachers' joint organizations in 1944, studies consumption and life within the home, the work of housewives and the division of labor between households and industry, as well as methods and utensils for domestic work. HFI also aims to provide guidelines for a satisfactory production of consumer goods, such as household objects and utensils, food and clothes, and instructions for facilitating and rationalizing domestic work, and material for education and information for homes, schools and institutional housekeeping.¹³

The practices established at HFI for investigating work in the home seem most relevant when tracing the origins of what became user-centered Swedish design methodology. In the process of forming the Swedish welfare state, the home was highly present as a metaphor and as an area of reform and rethinking. The rational planning and building of new housing to address the housing situation and living conditions had the parallel process of planning and educating for reforms of how homes were actually used and inhabited. The actions prompted by more or less explicitly articulated ideas regarding the ideal home became more systematic and more widely branched in different areas of Swedish society and everyday life in the first half of the twentieth century. To map the usage of modern and older dwellings, a series of investigations of dwelling habits were initiated, starting in the late 1930s and continuing through the 1950s, by various organizations and state bodies.¹⁴ The ambition was to use scientific methods to make an inventory of how the dwellings were used, with the aim of defining appropriate measures to improve the overall standard of housing and living conditions. The scientific methods applied in industry and the social sciences were used on a large scale to analyze and understand home life to improve it. For social reformers, politicians, and social engineers to find the best possible solutions, the real needs of people were seen as universal, but at the same time the fulfillment of these needs, it was understood, needed to be adapted to individuals or families with different demands and living situations.

A focal point in home reform came to be the kitchen, where the movements and actions of women's housework were investigated systematically and scientifically with the threefold aim of

13 *HFI-meddelanden* 1 (1946), 1.

14 Maria Göransdotter, "Möbleringsfrågan. Om synen på heminredning i 1930- och 1940-talens bostadsvaneundersökningar" [The Furniture Question. Interior Decoration in Surveys of Dwelling Habits of the 1930s and 1940s], *Historisk tidskrift* 3 (1999).

improving the building standards, finding the best design of kitchen utensils and equipment, and determining the best ways of working, acting, and moving around in the kitchen.¹⁵ Drawing heavily on Taylorist and sociological methods, HFI launched an ambitious project to map almost all aspects of household work. The first three studies launched would focus on measuring physical labor within housework, studying a specific work area in the home, and studying a certain type of tools or utensils. These studies were intended to start mapping practices and infrastructures associated with housework, but were simultaneously defined out of a need to understand how a scientific inquiry into this field would need to be structured and carried out. Which methods should be used? How should the studies be framed? Similar ideas and initiatives were seen in many other parts of Europe and the United States, and HFI looked at other organizations and other fields of academic and practical study when defining how to approach the studies of housework. Sociology, engineering, and the natural sciences provided many of the methods used.

Improving Domestic Life and Work

When HFI started its work in 1943–44, the founders of the institute were all women, and many had a background in different organizations promoting housework as a professional practice that was seen as needing a more solid analysis on an objective and scientific foundation. The members of the board of the HFI were predominantly female, experts in their respective fields, such as nutritional science, home economics, and architecture. The staff employed at HFI were also mainly women, with a training in science or home economics, and the few men employed often had an engineering background. In the studies they conducted, not only were the investigators women, so were the users taking part in the studies. Studying not only what kind of work was being carried out in the home but focusing on how things were done—and sometimes why—became a way to highlight the importance of both home and housework on a societal level. The systematic and scientific arguments in play when studying housework at HFI were instrumental in establishing a new role associated with women in social and political discourse: that of the expert housewife.

Women were defined as expert users of utensils, tools, and environments connected to the home and to housework, and were presumed to be, in their role as experts, entitled to both professional equipment and well-disposed work environments.¹⁶ Parallels were drawn to changes in industrial production and work methods, and several of the organizations engaging in HFI also advocated that housework should be considered a professional

15 Carin Boalt, "Hemmens forskningsinstitut. Hur vi arbetade. Vad vi gjorde" [The Home Research Institute]. *How We Worked. What We Did*, in *Kunskap för vår vardag: Utbildning och forskning för hemmen* [Knowledge for Our Daily Lives: Education and Research for the Home], ed. Brita Åkerman et al. (Stockholm, 1884), 148; Britta Lövgren, *Hemarbete som politik: Diskussioner om hemarbete, Sverige 1930-40-talen, och tillkomsten av Hemmens Forskningsinstitut* [Discussions on Homework in Sweden in the 1930s and 40s and the Establishing of Hemmens Forskningsinstitut (The Home Research Institute)], diss. (Stockholm: Almqvist & Wiksell, 1993).

16 See Boel Berner, "Housewives' Films and the Modern Housewife. Experts, Users and Household Modernization. Sweden in the 1950s and 60s," *History and Technology*, 18, no. 3 (2002), 155–79.

practice equal to salaried work outside the home. A central part of the establishing of a certain kind of expertise and professional practice in relation to housework, was the quantification and measurability of work and work environment. The visual mapping of movements and measuring of time, in turn, was crucial to this process. The aim of the HFI was not only to understand and present the conditions and practices of housework but also to change these.

In the first publication issued by the HFI in 1946, the theme was dishwashing.¹⁷ This study is interesting as an example of the approach and methods taken in the study of housework and as an example of how things, environments, expertise, and everyday practice were studied and analyzed from different perspectives. The details of dishwashing in the home were analyzed from a wide range of perspectives, ranging from chemistry (water, detergents, and materials) to architecture and infrastructure (layout of the kitchen, format of the sink). A survey was conducted in some 2,000 households in both cities and in rural areas, in which questions were asked about who in the family did the dishes, how much time it took, and how the kitchen was planned. Studies of people (women) washing dishes were conducted in controlled laboratory-like environments and in actual homes.

In some of the tests, structured as scientific experiments, the object of study is how long it takes to wash a “standard” set of dishes, treated with different foodstuffs and in various degrees of dryness. Several different types of sinks, both older and newer production, are used, as are all kinds of the roughly fifty varieties of dish cleaning brushes on the Swedish market and some fifteen diverse kinds of drying racks. Besides the aspect of how much time it takes to do dishes in different sinks, with different equipment, energy consumption (measurement of lung capacity) and movements are measured and mapped to assess the efficiency and labor intensity connected to the different settings. In diagrams, the differences in movement of hands and crossing of arms depending on the type of sink used when doing the dishes were mapped. Posture was studied in regard to placement of the sink and to the height of the working surface. Time, it was stated, could definitely be saved if adequate tools and properly planned sinks of a reasonable height were used. “Standard dishes” would be ready eight minutes earlier in such a setting rather than if a too small and badly planned workbench was used. In the results of the studies, several actions were suggested to improve the “physical and psychic well-being” as well as the efficiency of the person doing the dishes.¹⁸ Such studies were conducted for a range of activities, including cooking practices such as baking bread (see Figure 1).

17 *Diskning i hemmen* [Dishwashing in the Home], *HFI-meddelanden* 1 (1946).

18 *Kost och kök*. [Food and kitchen. 1. The City Kitchen], *Stadsköket 1. HFI-Meddelanden* (1974): 2 (Stockholm: Hemmens Forskningsinstitut), 76.

Figure 1

Photographs of archive materials: reports from Hemmens Forskningsinstitut, HFI, published in 1947. Study of kitchens and cooking practices, documenting the experimental setup for measuring work effort when preparing dough at different workbench heights. Reports from HFI (1947).

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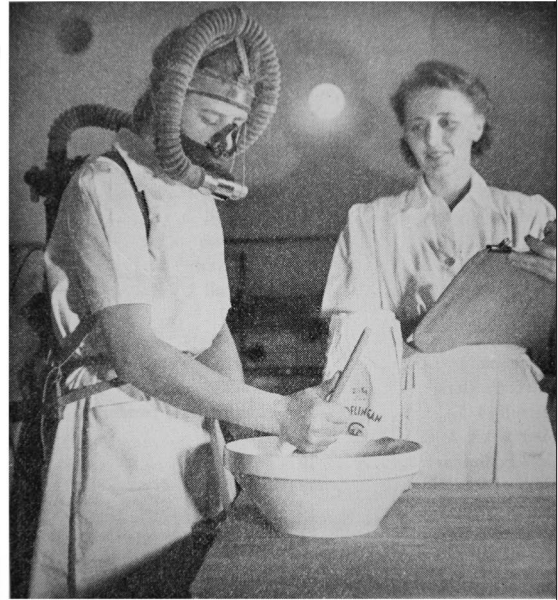


Fig. 5. Mätning av energiomsättningen vid tillsättning av deg på olika arbetshöjder medelst Douglas' metod. Genom analys av utandningsluften, som uppsamlas i en säck, beräknas energiomsättningen hos den arbetande.

Even if time measurement was central to part of the assessment of how strenuous or time-consuming a work task was, for HFI it was clear that time studies alone would be too limited to fully understand how to create possibilities for change. In describing the methods used for evaluating different utensils for the home, for example, it was stated that even though it is easier to assess quantifiable and measurable properties of an object, equal weight and importance must be given to other factors determined through practical testing of these by actual users, “such as shape of handles, risk of causing damage during use, etc., [which] must of necessity be purely subjective evaluations.”¹⁹ As one HFI founder stated years later: “One wanted to see the different work processes in the home as a whole, where there are a variety of different factors to take into account. It is for example not enough to state that work is done in such [a way] or such a long time, or with a tool of this or that making. One must try to see to the whole at the same time as one studies the particularities of the work processes.”²⁰

Another explicit aim of HFI was to influence the production of household goods and have an active impact on the things and tools used in households, as well as on understanding and investigating the use and the users of these. This is where we can see the early roots of a user-centered design process that

19 *Undersökningar av småredskap: Stekspadar, potatisskalare, konservöppnare* [Investigations of Small Utensils: Spatulas, Potato Peelers, Can Openers], *HFI-meddelanden* 4 (1946): 9.

20 Boalt, “Hemmens forskningsinstitut” [Home Research Institute], 152.

Figures 2 and 3
 Photographs of archive materials: reports from Hemmens Forskningsinstitut, HFI, published in 1947. Figure 2 shows different models made in clay developed with users. A second iteration of prototypes based on the most promising models were then made in wood. Figure 3 shows one of the diagrams presenting the research results with the different knife shaft models. The diagram includes both quantitative data, such as measurements and graded scores, as well as qualitative statements, such as what it feels like to use it. Thus, two key aspects of user-centered design methodology can be seen in these illustrations: tests with users to obtain qualitative and quantitative data, and iterative prototyping, with the fidelity and material quality of the prototype increasing over time. Reports from HFI (1947).

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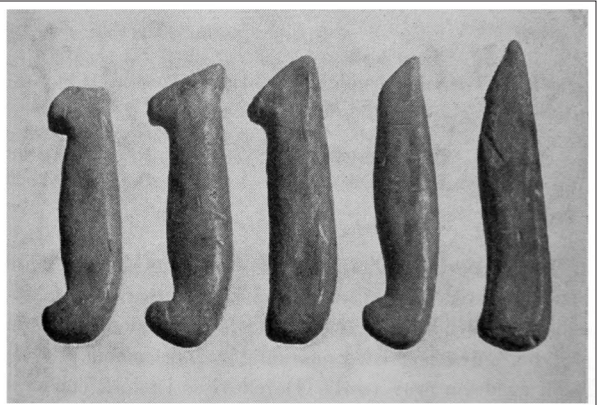


Fig. 7. Modeller, utförda i plastelina, till förskärarskaften nr 25, 27, 28, 30 och 31.

ändan. Dessa snedavskurna skaft, som alltså har ryggsidan framdragen över bladryggen, avser att hindra tummen

Tab. 2. Sammanfattning av smidorna och påtagsskåporna vid prov med förskärarskaften nr 11.

Flökesnummer	Utmärkning	Skåp	Skåp	Skåp	Skåp
12	Utan utmärkning	Något för plant	Pluggarna alltså tyngt mot bladryggen		
16	Utan utmärkning	Något för tunt	Utan utmärkning		
25	Något för kort	För tunt och för plant	Skaftet ligger utslutet, men pluggarna sk. ett ryggåttan ligger för kort		
26	Utan utmärkning	För smalt och för tunt	Utan utmärkning		
28	Utan utmärkning	Något för tjockt	Skaftet ligger för käftigt löstlöst. Ryggåttan ligger för tjockt och för käftigt. Ryggåttans uppbyggnad öfver bladet		
27	Utan utmärkning	Något för tjockt	Skaftet ligger för käftigt löstlöst. Ryggåttan ligger för tjockt och för käftigt. Ryggåttans uppbyggnad öfver bladet		
29	Utan utmärkning	För tjockt	Skaftet ligger för käftigt löstlöst. Ryggåttan ligger för tjockt och för käftigt. Ryggåttans uppbyggnad öfver bladet		
30	Utan utmärkning	Något för tunt	Skaftet alltså utslutet. Ryggåttan ligger för tjockt och för käftigt. Ryggåttans uppbyggnad öfver bladet		
31	Utan utmärkning	Något för tjockt	Skaftet ligger för käftigt löstlöst. Ryggåttan ligger för tjockt och för käftigt. Ryggåttans uppbyggnad öfver bladet		

Tab. 3. Förskärarskaften nr 25-31 (grannmodellerna, nr 16-19). Skåp 4-12.

Skåpnummer	Utmärkning	Skåp	Skåp	Skåp	Skåp
16	Utan utmärkning	Skaftet alltså utslutet	Utan utmärkning		11,8
17	Något för tunt	Skaftet smaltare ligger utslutet	Utan utmärkning		12,8
18	För käftigt	Skaftet alltså utslutet	F. för utmärkning ca. skaver skaver för skaver i bladet		16,1
19	För smalt och för käftigt	Utan utmärkning	Utan utmärkning		11,6
20	Något för tjockt	Utan utmärkning	Utan utmärkning		14,2
21	Något för tjockt	Skaftet alltså utslutet	Utan utmärkning		13,7
22	Något för tjockt	Något för tjockt	Skaftet alltså utslutet		12,1
23	Något för tjockt	Något för tjockt	Skaftet alltså utslutet		11,7
24	Något för tjockt	Något för tjockt	Skaftet alltså utslutet		13,2
25	Något för tjockt	Något för tjockt	Skaftet alltså utslutet		14,2
26	Något för tjockt	Något för tjockt	Skaftet alltså utslutet		14,8

21 HFI-meddelanden 4 (1950), 52-58.
 22 "Kök för invaliderade husmödrar" [Kitchens for Crippled Housewives], HFI-meddelanden 5 (1951): 13.

incorporates ergonomics, design ethnography, prototyping, user testing, and user experience. Already in 1950, a study focusing only on work posture and ergonomics in different kinds of household work was inspired by the latest research on and developments in industry-focused occupational science.²¹ A year later, a similar study was made of how homes and equipment would need to be designed to accommodate the needs of disabled housewives in carrying out different types of work.²² The HFI studies of objects investigated materials, production, use, and function were all

investigated. HFI mapped work methods and equipment relating to the processes (conservation, food preparation) and tools (knives, whisks, spatulas, tin openers, etc.) relating to cooking, laundry, cleaning, and so on. In all cases, there were very specific advice and guidelines given about which tools were preferable and which improvements should be made to existing objects.

The testing included user studies, ergonomic evaluations, and often prototypes of other solutions for design and production. In a study of cutting knives, a thorough investigation was made as to different forms of handles (see Figures 2 and 3). New form proposals were modeled in clay by the users, investigators, and engineers together and then prototyped in wood to test before suggesting new models for production. In many cases, producers actually picked up on these suggestions.²³

To have a more direct dialogue with different companies producing household objects, the HFI set up technical committees, in which representatives for product development in different companies would meet and discuss production techniques and improvements with HFI representatives. Connected to the technical committees were at times so-called housewife committees (*husmorskommittéer*) that would take an active part in product testing and method development in their home settings. Through these kinds of committees, the opinions from the everyday users of things—the expert housewives—carried over to the producers of them. The surveys, questionnaires, and photographs showing the actual conditions of use in the home became discussed in a different way than earlier.

An indication of HFI's significant role in establishing methods and practices that became incorporated in the product development design process in Sweden (not least by bringing in user experience, ergonomics, and prototyping) can be seen in the special edition of the journal *Form* in 1946 introducing the term "industrial design." Presented as an emergent profession in the United States, definitions and discussions of this new field were given by practicing designers, by producers, and by "housewives," in their role not as consumers but as expert users. Some objects designed according to industrial design principles were a vacuum cleaner, an electric stove, a sewing machine, and the kitchen knives from the above-mentioned HFI study.²⁴

Setting Standards

What is intriguing about this early case of a user-centered design methodology is that it contains more or less all the central components that later turned up in definitions of user-centered design: the importance of starting from studies of users' practices, in situ and in more controlled settings; the interdisciplinary approach of using methods from a range of different domains, combining

23 *Hushållsknivar. 1 Förskärare och rensknivar* [Household Knives. 1. Slicing and Paring Knives], *HFI-Meddelanden* 2 (1947), 123–25.

24 "Bättre och vackrare—men inte dyrare. Husmödrar diskuterar funktion och form," [Better and More Beautiful—But Not More Expensive. Housewives Discuss Function and Form], *Form* (1946): 65–67.

quantitative and qualitative data; the use of prototypes of various levels of fidelity in iterative testing with users; the notion that the user is also an expert in the sense of someone in possession of crucial knowledge; the involvement of different stakeholders in the process; and not least the combination of concrete design proposals along with more general guidelines and implications for design. Furthermore, while notions of justice, inclusion and representation have been part of the user-centered design discourse all along, the more recent revival of an interest in design for social change is in line with what seems to have been the ambition already from the start.

Conclusion

As we look further into the historical origins of our design methods, their meaning deepens. It may be obvious that user-centered design methods are about making sure the design process and its results are relevant and meaningful to the intended user groups, but the significance of what it means to be meaningful, useful, and part of everyday life escapes more instrumental accounts of such methods. As we look at early examples such as the work of the HFI, we can see that aspects such as efficiency was not just about making work in the home faster but more fundamentally about making it more professional and making it recognized as work. Similarly, while experimental setups and quantitative methods were used to gain insights into certain aspects of these everyday practices, they also served the purpose of legitimizing them in relation to similar studies done in other professional contexts, notably industrial production. Thus, we cannot completely understand why this form of user-centered design ended up developing in this particular way without considering the bigger political and societal picture it was part of. In this sense, these methods are by no means neutral with respect to values, norms, and objectives. Indeed, we might ask to what extent these methods still enforce the values and norms that once guided their formation. Looking closely, we can recognize trajectories toward social justice and equal opportunities, but we can also see the traces of an understanding of rationality as closely connected to industrial relevance and of professional work as considered more qualified than everyday practices. It is also interesting to note that this “design research” did not originate within the field of design at the time, but from a broad political and interdisciplinary initiative toward social change and societal development, and from an inherently feminist agenda.