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NONHUMAN APPROACHES TO WOOL IN DESIGN PRACTICES HOW CAN A PRACTICE-BASED DESIGN RESEARCH HELP UNDERSTAND OTHER ENTITIES?

PAPER

NONHUMAN, SUSTAINABILITY, SUSTAINABLE DESIGN, MATERIAL IN DESIGN, MAKING, WOOL, DESIGN DRIVEN RESEARCH

DDR STATEMENT

I work with design driven research (DDR) methods for the way that they allow me to understand craft-design relationship first hand. DDR is useful not only because it is appropriate for making-design practices, but also allows to have a better understanding of the material, as it refers to a better connectivity and process of working with it. Therefore DDR and my practice with the material becomes a tool for me to broaden and produce knowledge and understand agencies other than human in a making practice.

Still I am using a mixture of theoretical and practical elements to conduct the research. With autoethnographical documentations of the felting process, material experiences and reflective diaries, I aim to have a better understanding of the felting practice and the wool material. In the initial process, I came to an understanding that thinking about wool without doing the felting practice also helps with my process, therefore the reflective diaries not only consist of the felting process, but also my thought process about the material. Therefore, DDR is not only useful while felting and dealing with wool, but also strengthens the thought process. Furthermore, I plan to strengthen this process with field trips to local production places, observations and semi-structured interviews. All in all, DDR and practice-based approaches allow a better understanding of human/nonhuman interactions in a making practice. I think that these practice-based approaches strengthen the position of making in product design. It also underlines the practical elements in craft/design relationships and maker/designer practices.

ABSTRACT

This research focuses on human-material connections in design and making practices based on experimental trials and processes, to find ways to develop materials and artefacts that are more suited for living together with the world. Although designing objects/artefacts/things from human needs has been the main approach in the current design discourse; influences from more-than-human approaches amongst others emphasize the need that we should include nonhuman entities (the earth, materials etc.) in our design process. Current environmental issues all demonstrate that we should find ways to coexist with nonhuman beings. I work with wool as a material and use felting as a designing/making activity for this approach. To include nonhuman entities into design, I connect nonhuman theories with traditional ecological knowledge, which also provides a connection to older traditions and lifestyles that can make our living more sustainable today. In this paper I emphasis nonhuman approaches and making practices.

In this paper I will discuss how design practice can bring alternative approaches to material and making, specifically felting wool, and explain my initial research that consists of a nonhuman agency research in design studies.

This paper focuses on a practice-based study that aims to understand wool material from nonhuman perspectives using felting technique. Current environmental issues all demonstrate that we should find peaceful ways to live with nonhuman things in the world. Bratton even states that with "the looming ecological consequences of what is called the Anthropocene", in future decades "we will need to terraform Earth if it is to remain a viable host for Earth-like life". [1] Tsing writes, "human nature is an interspecies relationship" (p. 144) [2]. Thus, to study humanity accurately, there is a need to situate "humans within historically and culturally specific networks of interdependence with animal, plant, microbial, and object others" (p. 16) [3]. Wakkary [4] states, "in phenomenological terms, humans, as a notion, cannot be seen in isolation but rather in relation to the world" (p. 123). As the world is facing many issues with climate and the ecological crisis, it is necessary to look at nonhuman things as a part of design for sustainability.

Although the main approaches in design field have been human-centered since 1980s [5] , there is an ongoing interest in posthuman theories, nonhuman and more-than-human agencies in design [6]. Perspectives related to nonhuman agency in design may focus on different elements, such as environmental or technological agencies. Smitheram and Joseph's Phenomenal Dress project [7] demonstrate a more-than-human relationship, where material thinking, making-with approaches and posthuman theory from Māori perspectives were used, and the collaborator for the project was the environment-the ecosystem itself. Giaccardi and Redström [8] also emphasize the need to go into a more-than-human design practice from a technological approach, by suggesting that outcomes and experiences would be the result of people and networked computational things. As nonhuman agency includes any agency that is not human, there are other studies in design field for nonhuman agency, that involves artificial intelligence, digital agencies and human computer interaction [9] . Many studies on nonhuman approaches in design has been made from technological perspectives. However there is still a need to emphasise that designing only for human needs can make us ignorant of the other entities we live together with. As design industry and practices are mainly based on western traditions, what is missing from much of the research on nonhuman agency is a design for sustainability approach that takes issues such as climate, traditional ecological knowledge, craft and making knowledge into account. Drawing from these, in this research, practice-based methods are explored to trigger possibilities for working with material sustainably, and this mentioned nonhuman agency focuses on the environment and material.

Approaches for Making with Entities Other Than Human

I mostly use nonhuman agency and more-than-human approaches together as I believe they should all be explored more through design and making practices. Additionally, many other concepts are being used, related with 'not centralising humans', that include non-anthropocentrism, multispecies, posthumanism, decentering of humans, which all are expanding our understanding of multiple agencies (4). The terms nonhuman and more-than-human already underline the obvious, that working with the material requires more than "human", as it is always a creation process with the material. However, as humans our humanly needs mostly command what to create from the material. I aim to shift the thought process further than that, to rethink my currently human needs-based decision-making process, while working with the material.
Craft and design, including making practices [10] and materiality all have relations to sustainability studies. The relationship between craft and design, which has been studied from different perspectives [11] such as craft and sustainable design [12], sustainable craft [13] and design is being discussed in relation to sustainability. Craft-design relationship and making practice was explored from a sustainability approach by Bak-Andersen [14] , where she takes material dialogue from craft and applies it to contemporary design processes.

There is also a need to address material further from design domains. As Tonuk and Fisher [15] state, material has been worked on by scientists and engineers to discover their potential, innovate or suit them better to everyday life by positivistic methods, however from design perspective there are other needs to see human interactions, as "humans are cultural and emotional as well as physical beings, and always encounter materials through social practice" (p. 122). Materials experience researchers also deal with issues of sustainability and design, for instance through biodesign. [16] By taking these works into account, I claim nonhuman and posthuman theories can facilitate in finding alternative ways for the problematic relationship between sustainability and making, and reinterpreting craft and design relations through materials.
For all these purposes, I am conducting my research based on making practices and nonhuman approaches. The emphasis on the ways to coexist with the rest of the world is significant in this research, as it outlines a need in the design field to perceive the world through other's eyes. It also underlines that working from nonhuman perspectives can make us see designing artefacts from a holistic perspective, which can shift our thought and decision-making processes while designing for others, including humans.

There are numerous studies about felting as a practice and process of felting from different geographies, from various fields of studies, such as crafts. From design studies, Ovacık and Gümüşler [17] have emphasised the ecological value of traditional felting, and the disappearance of this practice due to industrialisation and globalisation. Gumus Ciftci and Walker [18] have conducted a practice-based study in Eastern Turkey with three existing crafts, one of them being felting, to investigate how design can contribute to the development of crafts sector. Aktas and Mäkelä [19] [20] have explored felting from field studies with eight felting practitioners in Turkey, to understand the practice and how it can be empowered with design, and from a studio environment. My research also explores fields related to wool material and felting, taking relevant studies on felting as a base.

Research Plan and Methods

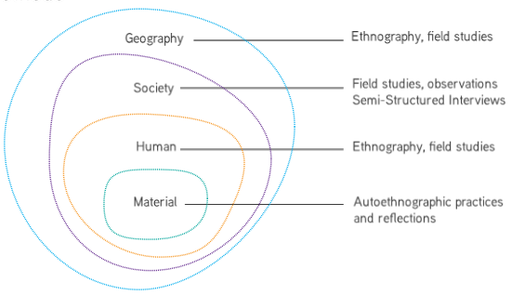

Figure 1. Key concepts, within the scope of design studies: Wool and felting will be analysed according to design studies, keeping the key concepts of material-human-society and geography.

The main focus in the research (fig. 1) is material in design culture, and human, society, and geography are elements that are going to be used to understand material in the design field. The key concepts of material, human, society and geography are all in relation to each other in the scope of the research, and to material culture as it refers to the relationships of wool. These are mentioned as key relations, as they all refer to material's subjectivity according to different perceptions and scales.

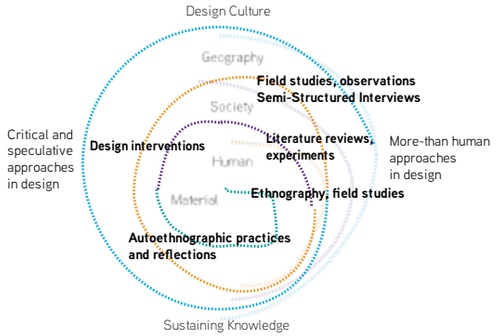

Figure 2. Methods and approaches that will be used with key concepts: Wool and felting will be analysed according to the mentioned scopes: Critical and more-than-human approaches are linked with sustaining knowledge and design culture, and refer to practice-based approaches in sustainability.

Planned methods are developed considering the relations of key concepts (material, human, society and geography) and considered interventions (sustaining knowledge, more-than-human, critical and speculative approaches in design, design culture). Finally, the key concepts and methods are planned as a spiral process to show that it is not a linear process and all concepts are related to each other.

Exploratory Phase: Working with Autoethnography and Reflective Diaries

Figure 3. Reflective diaries and workspace for wool.

Figure 4. Initial explorations with different types of wool (waste wool, unprocessed goat and sheep wool, processed wool) and trial reflective diary

These mentioned methods also allow me to define a clearer connection between sustainability, design and making practices in context of nonhuman agency, which are the key issues of this research. Currently I am in the process of researching the human-material interactions through autoethnographic practices and reflections, and literature reviews. For the future I plan to include wool's relation to society and geography into this process, which will also allow me to see how they affect my making practice.

I chose to study felting wool to understand the basics of human interaction and technique, for many reasons: The material and production method itself emphasises the relation of geography and traditional craft/making knowledge with wool. Felting requires minimal additional tools (wool, hot water and soap are the basic ingredients), so it is relatively easy to relate to the material itself, which underlines the interaction with wool. Production with felting can be finished without using additional core materials other than wool. Felting wool was presided in craftsmanship from early ages and is a well-known, ancient traditional cultural practice in Turkey, which means that there is a significant indigenous knowledge that exists in felting practice itself. Felting wool for design research is also relevant in Norway, as wool is known to have a strong place in daily life, and wool supply can be found through local farms and establishments. There has been relevant studies on wool in Norway where researchers explore how to make better use of the Norwegian wool, also as the society has a general knowledge about wool, there is a 'wool culture' that can be further explored. In this research felting is taken as a starting point from a designer/maker's perspective, to introduce felting wool (making practice) as a method in the design process. By doing this, I intend to affirm that making practices can contribute to the design field and be used in the design processes. To explain more briefly, I seek to bring out a conversation with the material itself, that exists in craft and design practices, to the current contemporary design field and design process.

Reflective diaries and autoethnographical documentations allow me to follow the changes between working with processed wool in my DIY practice and unprocessed wool that did not lose its qualities and is sourced from local farms. For instance, according to diary entries as the unprocessed wool is not dyed and consists of many different colors on its own (for crafts, it is generally dyed, or sorted according to colors before starting felting process), it shapes forms and patterns during and after the felting process: "These forms, shapes and patterns would be designed and made by me, if it was already processed wool. But now that I am already working with sheep's wool that does not have one color, the shapes form themselves by the wool" (diary log, 10.02.2021). This defines a clear difference between working with DIY tools for felting, and working with crafts methods and with unprocessed wool.

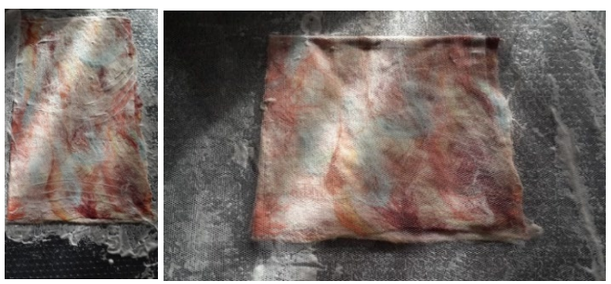

Figure 5. 2016, Izmir, Turkey. Form and pattern trials with processed (cleaned and dyed) wool. (forms and patterns are being created by me-the maker).

Figure 6. 2021, Trondheim, Norway. Form and patterns creating themselves by the wool itself in pre-felting process.

Figure 7. 2021, Trondheim, Norway. Form and patterns creating themselves (by the wool and felting process itself), during and after felting.

As seen in examples, there is already a distinction between working with processed and unprocessed wool. Apart from suggesting more possibilities, unprocessed wool has several characteristics that differs from processed wool. Some of these characteristics make working with it more difficult and time consuming. According to a diary log, 'some differences I feel are related to my sensorial experiences, such as the smell of unprocessed wool that is very specific and strong, and the tactile experience is more fluid: Although the unprocessed wool is from a specific source, different fibers of wool have different traits of softness or untidiness. With wool for DIY (processed wool), the tactile experience was more stable/durable for me, as there was only 1 type of fibre' (12.02.2021).

Concluding Remarks on Material and Practice

In practice based or led research, the personal experiences, past experiences of the researcher is part of the research process. For my research as I was already practicing felting, this past experience and knowledge is from design and making practices, wool and felting; but I would also argue that my background not related to design or making practice, for example personal observations also intertwine within the research process. These practice-based elements also emphasise a relation to tacit knowledge, explained famously by Polanyi as "we can know more than we can tell" [21]. Dormer states, "tacit knowledge is practical know-how, and it exists in people" (p.147). [22] Therefore, Dogan [23] argues it is learned through practice, which is expressed as an ability in the making process (p.14). I currently identify as a researcher who has design knowledge and is a novice practitioner of felting. My interest in felting started because it was one of the traditional craft practices in Turkey that has endured to continue to be part of daily life. I learned the practice as a Do-It-Yourself'er (DIYer), from online sources and with DIY felting materials. I then acquired and integrated this knowledge for my own making/designing practice. Thereupon, I saw it is possible to see how methods of making allow designers to be in a relationship the materials. Moreover, I observed that when working from perspectives other than the human, makers' understanding of the world expands. What I have studied and applied to my practice so far has been some felting practices from Turkey and DIY practices. In this stage, I aim to explore the nonhuman perspectives more, and I believe it can be beneficial in creating a more sustainable making/ designing practice. The issues I raise about understanding the material and design processes are in relation with and involve reflection-in-action and reflection-on-action, described by Schön as the types of reflection making [24].

I believe that designing from nonhuman agencies could also benefit our current practice of designing for other humans, and lead to more sustainable and ethical design approaches. One of my main assumptions is that knowing the material from a making practice helps designers in the process of designing, and this approach could trigger changes in human behaviour itself. In the end, I aim to find out how acquiring knowledge of making and traditional ecological knowledge affect contemporary product design, and how these characteristics can be adapted according to contemporary societies.

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