Aktas, Bilge; Mäkelä, Maarit; Laamanen, Tarja-Kaarina

**Material Connections in Craft Making**

*Published in:*
Proceedings of DRS2020

*DOI:*
10.21606/drs.2020.216

Published: 01/08/2020

*Document Version*
Publisher's PDF, also known as Version of record

*Published under the following license:*
CC BY-NC

*Please cite the original version:*
Material Connections in Craft Making: The case of felting

Bilge Merve Aktaş*, Maarit Mäkelä#, Tarja-Kaarina Laamanen#

* Aalto University
*Corresponding author e-mail: bilge.aktas@aalto.fi
doi: 10.21606/drs.2020.216

Abstract: This study examined a creative practice, namely felting, to explore the daily practices and encounters of felt makers. The study aimed at understanding the material connections of felt-making that are not limited to the making process. To examine how practices of felt makers emerge in connection to materials, we employed the material engagement theory as our perspective. The data was collected through interviews with eight felt makers and participant observation at two studios in Turkey. The analysis revealed how felt makers think between things, people, space and time and develop their practices accordingly. These findings illuminated a holistic and insightful understanding of the material’s role in shaping the practice and field. A more holistic and insightful approach can also propose being open to constantly renewing creative practices and recognising how its material connections affect other things and people.

Keywords: felting; wool; creative practice; material engagement.

1. Introduction

Philosopher Gilles Deleuze and psychoanalyst Felix Guattari (2019, p.553) described felt as an anti-textile that is “in principle infinite, open, and unlimited in every direction; it has neither top nor bottom nor centre; it does not assign fixed and mobile elements but rather distributes a continuous variation”. Our previous study about felting in Turkey indicated that variation also continues in makers’ approaches to felting (Aktaş & Mäkelä, 2017). These different approaches are not limited to differences in techniques of actualising an artefact but also includes various social and material encounters. This paper extends the previous analysis that examined designerly approaches in felt-making to understand how material affects the creative practice.
In this study we examine felting from the perspective of material engagement theory (MET). According to archaeologist Lambros Malafouris (2013, p.35), MET can illuminate interactions between mind and material to understand “the making of present and past ways of thinking”. MET proposes that human thinking is situated in deep intra-actions between people and their surroundings, both human and nonhuman, and occurs between people, things, space and time (p.39). Similarly, a creative practice requires life span development and emerges out of an interaction between individual, field, and domain, which in our study is felting (Simonton, 2000; Csikszentmihalyi, 1990). Applying MET to examine craft making and its material connections can illuminate various ways of becoming a maker in connection to material things, other people, working spaces and the history of craft practice.

For this study, we examine ways of felting in relation to the material, namely wool, due to its central role in shaping creative practices. For instance, materials can affect thinking while making (Nimkulrat 2012; Aktaş & Mäkelä, 2019), experiences and communicating with the experiences (Karana, Pedgley & Rognoli, 2015; Pallasmaa 2009), and ideating design (Bolt 2007, Ingold 2010, Laamanen & Seitamaa-Hakkarainen, 2014). We contribute to these discussions by looking more holistically at the materiality of felting and its connections.

For this study, we interviewed eight felt makers from Turkey and conducted participant observation at two studios, five days at each. In the following section, we first unpack the concept of MET then present our empirical data and discuss it from the perspective of MET to gain a better understanding of the field. We conclude by studying our findings regarding people, things, space and time to present a more a holistic and insightful understanding of the material’s role in shaping the practice and field.

2. Material Engagement Theory (MET) as an approach

Craft practice is a way of thinking while manipulating material (Nimkulrat, 2012). In this process, the maker builds a dialogue with his/her hand, mind, material, and material surrounding (Aktaş & Mäkelä, 2019; Mäkelä, 2016; Sennett 2013). This dialogue is extended to the situations, as social scientist Donald Schön (1988, p.183) argues, since creative practices either transform the situations or are transformed by the situations. Based on their personal experiences, makers generate various perspectives and knowledge types for similar creative practices (p.182). Accordingly, as sociologist Richard Sennett (2008, p.150) argues, the dialogical act of making and thinking can facilitate the gaining of knowledge. By thinking with materials and shaping them into forms, cultures are constructed (p.199). Therefore, creative fields emerge from the togetherness of interrelations between things, bodies, ideas, memories, and social formations (Fox & Alldred; 2017, p.88).

According to Malafouris (2013, p.44), we make sense of the world through our material engagement in which the mind is extended to the surrounding space, and we think between people, things, space, and time. He proposes that during constant material engagements, materials enact people to interact with them in different ways (p.118). Therefore, while
engaging, materials actively shape how humans think and transform their intentions (p.148).

Similarly, sociologist Andrew Pickering (1993, p.571) argues that through time, human perceptions and material existence re-constitute each other, which results in new knowledge and experiences. By accommodating to constraints emerging from culture, materials, or practices, which are sometimes not even actively operating, we gain our agencies (p.583). Therefore, as Malafouris (2014, p.150) proposes, things and humans come to be through mutual engagement with social encounters and interactions. During these processes, whether they are craft-making processes or other types of material engagement, various entities enable and constrain each other (Malafouris, 2008).

Accordingly, in this study, we follow the idea that material and immaterial things actively affect the way we think, make, and exist in the world. We examine felt-making in relation to the possibilities that the material provides to understand how felting emerges. According to political theorist Jane Bennett (2010), things embed no fixed or static identifications but rather their meanings can change in relation to the conditions and other participating entities. Similarly, craft fields have dynamic structures based on interrelations between people, materials, space and history. According to Schön (1988, p.182), knowledge of making is embedded in the “materials, artefacts made, the conditions under which they are made, and manner of making”.

Drawing from these discussions, we study various practices that felt makers engage with to understand how they make felt not only through actualising an artefact but also through social and material encounters in the field. Thus, our discussion is not limited to the actual making process of felt but also includes other practices of the felt maker, such as obtaining the material, working with other people, and maintaining the practice. The MET perspective can extend the understanding of making and illuminate how the practice of felting operates on many levels and is connected to things, such as materials and tools, people, such as other felt makers and audience, space, such as making space, and time, such as evolvement of the practice through time. Next, we will present the setting of our study.

3. Studying the field of felting in Turkey

Felting is based on entangling wool fibres by applying friction, warm water and acidic soap to create nonwoven textile pieces (Burkett, 1979). Felting has a rich history in Turkey with an established design understanding both for making procedures and visual ideation for the practice (Burkett, 1979, p.77). Over time, new machines were introduced that quickened the production process by applying the friction power not with human physical effort but with machine power (Figure 1). New materials were also introduced, some of which were different types of wool and some are composite fibres with qualities resembling wool. Currently, felting is practised within a larger context that involves utilitarian and self-expressive artefacts (Atiş-Özhekim, 2009; Ovacık & Gümüşer, 2015).
To gain a general understanding of the field, we conducted a field trip to various cities in Turkey in December 2016. We interviewed felt makers working at eight studios that utilise felting for producing various kinds of artefacts, such as artworks, garments, carpets, and utilitarian intermediary products. These interviewees were selected after an extensive online search to map the field based on their use of felting as their main practice.

We interviewed felt makers in their workspace while they were working to observe and be in the real environment and position their opinions about their practice in context (Muratovski, 2016, p.64). The questions were mainly about making processes, raw material generation, the structure of the workspace and collaborations. Semi-structured interviews also provided insights into how they perceive their practice and the field. The interviews lasted between thirty minutes to two hours and they produced interview transcripts, videos of making processes, photos, and field notes (Table 1).

In August 2017, we organized another field trip to spend time at two studios, five days in each. On this field trip, we employed participant observation procedures to become more integrated into the field and observe the insider’s knowledge (Bernard, 2006). The first author became a participating observer and helped craftspeople with their everyday activities, including preparing the wool, making the artefact and communicating with customers. This observational time produced interview audio-recordings, videos of making processes, photos, and field notes (Table 1). Also, in this period the first author was involved
in the production of eight small or medium-size carpets and one large carpet in the first studio and one large carpet and twenty small cushions in the second studio.

Table 1: Empirical data of the study.

<table>
<thead>
<tr>
<th>Data</th>
<th>Audio-recordings of Interviews</th>
<th>Video data</th>
<th>Photographs</th>
<th>Field notes in A5 pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>First field trip (eight studios)</td>
<td>4.5-hour</td>
<td>3.5 hours</td>
<td>565</td>
<td>78</td>
</tr>
<tr>
<td>Second field trip (two studios)</td>
<td>6.5-hour</td>
<td>2.5 hours</td>
<td>358</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>11 hours</td>
<td>6 hours</td>
<td>923</td>
<td>134</td>
</tr>
</tbody>
</table>

3.1 Analysing the data

To identify the everyday practices and social encounters of felt makers, we investigated the interview transcripts using thematic analysis and generated sixteen codes and eight overarching themes (Figure 2 presents codes in lower case letters and themes in upper case). Field notes and photographs supported contextualising the information. First, we employed the cut and sort method to find significant phrases in the texts (Ryan & Bernard, 2003, p.94-96). These phrases included descriptions, emotional expressions and informative reflections that helped us understand the field.

Then, we identified repeating patterns emerging from these phrases by focusing on repetitions, similarities and differences, and transitions between the information among different felt makers (Ryan & Bernard, 2003). We found sixteen codes that conveyed information about the practice, space, things, people, and time, categories which we adopted from MET. The codes were: preparing the wool, the material (wool), additional materials, co-workers, the practice, products, the workspace, commercial activities, contact people, the identity of the maker, personal histories, other felt makers, definitions, the general situation of felting, problems/wishes, and plans for the future (Figure 2).

We then grouped these codes and generated eight overarching themes that construct the practice and the field of felting (Ryan & Bernard, 2003). These themes were: making, design, material, marketplace, economy, the maker’s societal relations, attachment to the practice and collaboration (Figure 2). The thematic analysis revealed the material’s key role in the felt maker’s practice as it appeared both as a code and a theme. Thereby, the material became the main frame of this paper to examine the practice and the field of felt-making.

When grouping the themes, some of the codes were shared by several themes. To show the overlaps of the codes within themes, we designed an image in which each theme is assigned a colour and a shape to group the codes it involves (Figure 2). The translucent colours emphasised the strong connections between various aspects and showed how most codes are relevant for multiple themes (Figure 2).
Next, we will discuss how the practice of felting is connected to things, such as materials and tools, people, such as other felt makers and audience, space, such as making space, and time, such as evolvement of the practice through time.

4. Layers of felt-making

During the interviews, felt makers pointed at several issues that significantly shape their practice and the field. The material, namely wool, was one of the most significant components that affect the makers’ practice, designs, workspace, and relations to people. In Turkey, sheep typically grow thick fibres, mixed with thin ones (Tüfekçi & Olfaž 2014, p.22). Although the thick fibres possess a fine felting ability, the sensory experiences may not be as nice. Therefore, felt makers stated that they can work with three types of wool in accordance with the needs. They can work with the local wool that comes from local sheep, they can re-treat the local wool and select only the thin fibres or they can purchase imported wool (Figure 3). In this section, the main themes from Figure 2 will be discussed in depth in connection with the types of material.
Workspace

As Figure 2 indicates, workspace is a central element that affects most of the themes. Therefore, although it is not a theme, we included workspace in this section to discuss material connections. Different wool types require various practices, such as cleaning, carding or selecting the wool. Therefore, makers designed and structured their workspace according to the wool they were using. Thus, the workspaces are drastically different. When craftspeople prefer to employ local wool, either the villagers deliver their wool to the workspace or the felt makers collaborate with people living in the surrounding villages to collect wool (Figure 4).

Some felt makers use local wool as it is without cleansing it of the natural features and with mixed fibres. First, they separate the wool based on its cleanliness and colours, as wool may naturally have ivory or dark colours. Then, with a machine that jumbles up the wool in a whirling tank, the dirt and natural pieces, such as hay pieces, are eliminated. Next, the wool is carded with a machine to disentangle the fibres and line them up in an orderly way (Figure 5). After this, the wool is ready to be felted. As this wool requires multiple steps before the actual felting, it requires a large workspace. Also, since this wool is utilised with all its natural qualities, the workspace is mostly messy.
When the wool is generated by selecting thin fibres from the local wool to improve sensory experiences, the maker needs a large space to carry out such a practice. After cleansing the wool of dirt, which is often done in collaboration with industries, the makers select the thin fibres by hand and do carding at their workspace. Since this work is done in large amounts, a storage space is often needed. This treatment requires time, labour and financial investment.

*Figure 4: Material delivery to the workspace. Photography: Aktaş, August 2017, Yalvaç.*

*Figure 5: Carding machine in Gencer’s workspace. Photography: Aktaş, December 2016, Yalvaç.*
When felt makers use imported wool, they usually purchase it through intermediary businesspeople from New Zealand; therefore, they need financial investment. When the wool arrives at the workspace, it is ready to be felted. In this case, the workspace is more sterile as only clean wool enters the space (Figure 6).

![Figure 6: Ayfer’s workspace, she uses imported wool and often makes artistic felt works.](image)


Therefore, workspaces differ from each other with their size and cleanliness. A common approach in organising the studios is to leave large enough empty space in the centre to locate the table or work on the floor when making large pieces (Figure 6). The empty space enables spreading the wool and creating a form before the actual felting begins. Accordingly, the machinery is usually placed around the walls to create such availability. Sometimes, workspaces also extend to public space in front of the studios, either because of the limited size or to benefit from fresh air.

**Design**

The thick wool fibres are typically firm and create an itchy sensory experience when in contact with human skin. Therefore, it is usually employed for everyday use artefacts with no direct contact, such as floor coverings, modest carpets and cushions, and utilitarian products, such as insulation sheets, saddle fabric and tents (Figure 7). In these carpets, the designs are similar to the ones from historical examples that Burkett (1979, p.78) presents.
The thin fibres generate softer sensorial experiences, and this wool is usually employed for fine products such as carpets and garments. The size can vary, yet due to the labour-intensive work or financial investment, it is typically employed for medium and small size artefacts. This wool is often employed for making fine designs and artefacts, such as artworks, garments or high-quality carpets (Figure 8).

Figure 8: A tapestry by Ayfer, who has a background in painting. Photography: Aktaş, December 2016, Seferihisar.
Products that are mostly garments can be found at several shops without their maker’s signature. There are also unique designs, mostly carpet or tapestry, that carry traces of their maker. In developing new artefacts, felt makers find inspiration from each other’s works but also follow iterative design processes. One felt maker pointed out the importance of having access to a large amount of material in order to experiment with it:

“It doesn’t matter if the designs don’t work out well. I can try several more times because I have the material and I am eager to try new things. Other felt makers may not be that experimental.” (Gencer, 22 December, 2016, Yalvaç).

Gencer’s iterative design process also refers to the importance of generating new design ideas by experimenting. As Malafouris (2014, p.144) proposes, makers discover by creating, and experimenting with materials can enhance their creativity.

**Making**

Felting techniques are essentially the same even when different wool types are employed. First, the wool is spread out on a surface according to the desired size. Hot water is then splashed over the wool, the piece is rolled around itself and placed in the machine. The machine whirls the wrapped piece around itself while applying pressure from above and the sides (Figure 1). The machine’s work continues for several hours, depending on the thickness of the artefact. When felting is completed, the artefact produced is washed and cleansed of soap. If the artefact is asymmetrical, its form can still be changed by pulling and pushing from the sides (Aktaş & Mäkelä, 2019).

Although this process remains similar, various wool types might require different tools. For instance, usually the artefacts made with thick wool are large in size and to speed the process, a tool called a çırpi is employed so that the wool is spread more quickly as this tool enables the collecting of a larger portion of wool. With thin fibre wool, however, since the artefacts are more delicate, spreading the wool is usually done by hand. Since the artefacts made with this wool are usually small or thin, felting can be also done by hand on desktops. In this case, after splashing on the water, the piece is hand-rolled back and forth until the fibres are entangled completely.

All felt makers stated that they often make their artefacts without a prior planning process. Rather, they follow the material and decide the visual elements of the artefact as they create. This approach is similar to Ingold’s (2010, p.10) discussion on designing while making and observing material transformations, rather than forcing a preconceived idea. Therefore, for the felt makers, the making process is also the designing process. For instance, one of the felt makers stated that although she thinks a lot before she makes, her mind is often free while making:

“The material leads and fluxes you … as a method, I find staying in the moment very valuable. When the material starts moving, I take a step back … I leave the room, have a cup of coffee. When I’m back I know what to do”. (Ayfer, 20 December, 2016, Seferihisar).
Marketplace and Economy

The analysis showed that the Marketplace and Economy as themes share most of their codes, therefore we discuss them together. The material types, designs and workspace create the audience. As Bennett (2010, p.56) argued, the creative materiality of artisans can generate various forms of encounters in relation to other things, such as makers or materials, that they are in close contact with. Similarly, as the wool type and wool generation technique creates various sensory experiences, users approach the product differently, such as for utilitarian or artistic purposes. The craftspeople we interviewed also noted that, regardless of the wool type, customers approach the felt artefacts with their preconceived assumptions, such as its ties to rural life. Since the thick fibre wool is often used for making utilitarian artefacts, its audience is often people living in rural areas or businesspeople who are looking for intermediary products. The artefacts, made of thin fibres, usually target domestic and international tourists as well as everyday users.

Felt makers frequently sell their artefacts within their workspace since they can benefit from tax-aid. Sometimes, makers also collaborate with other shop owners to exhibit their works in multiple locations. Although the financial conditions of the felt makers are in general quite diverse, there were no apparent complaints regarding this matter. However, it was obvious that maintaining an art or design-oriented practice with re-treated or imported wool requires financial stability. For instance, one felt maker that uses imported wool makes different artefacts to maintain her practice:

“I wish ... I could spend more time on design processes or making process. But if you want to maintain your work, sometimes you have to pay attention to the market demand. Now I have a few types of practices. I give what is asked from me to maintain the business, so I make things that are in demand. Then I have artistic works in which I make my own designs and enjoy the making process, with these works I open exhibitions. And the third type is the small-scale decorative accessories to keep the business alive”. (Ayfer, 20 December. 2016, Seferihisar)

Maker’s Societal Relations and Collaboration

Analysis revealed that the Maker’s Societal Relations and Collaboration as themes share most of their codes; therefore, we discuss them together here. The activities of people who participate in a given field interfere with each other in unpredictable ways (Law and Mol, 2008: 70). Similarly, felt makers collaborate with several people in various ways. For instance, most felt makers work with their colleagues at their own workspaces. All the studios visited included at least two felt makers working together on most projects (Figure 9). Sometimes, felt makers collaborate with other felt makers who have their own studios but work in different ways. In this collaboration, the aim is often to unite different knowledge types to co-make an artefact. For instance, sometimes they collaborate to combine different wool types:
“All artefact types require different material. It makes no sense to try to make something out of the material that I don’t use. I have friends who already make them, so we share things”. (Ayfer, 20 December 2016, Seferihisar).

Felt makers also collaborate with other craftspeople, such as saddle makers, to co-produce artefacts in which the main aim is to make a profit. Most interviewees shared their experiences of participating in local and international fairs and exhibitions. Although these fairs are useful for maintaining their social existence, felt makers who work in remote locations also mentioned the challenges of participating in big events. Yet, participating in events and having an online existence, mostly on social networks, also bring collaborators such as artists and designers through maintaining social relationships (Kaya & Yagiz, 2011, p.59). Therefore, some felt makers work with visiting designers and artists to develop their products. One felt maker stated that he changed his style of making through an international collaboration he had ten years ago. Another felt maker also described how he develops new designs with other creatives:

“We develop our artefacts with our collaborators … People bring their ideas to us and we experiment together. Then, if the designer allows us, we alter the designs and generate our own artefacts … We want to stay amateur. Otherwise, we are afraid that we wouldn’t have dialogues with these designers”. (Ufuk, 21 December, 2016 Tire)

Felt makers also participate in socially beneficial events, such as organizing vocational courses for underprivileged people or art events with kids. These initiatives often happen in collaboration with local governments, as most felt makers stated.
**Attachment to the practice**

Often the attachment comes from personal histories and how felt makers identify themselves and is structured through time. Most of the interviewed felt makers learned this practice in their early lives from their family members. Since felting is part of their identity, they continue this practice even without a significant profit. For instance, one felt maker who works with his two brothers and two friends continues his job because of the joy he gets:

“Sometimes my brother and I dislike each other’s designs and argue, but we continue making because we love this job... To improve ourselves, we work in new ways all the time ... We collaborate with other felt makers [and] do our best to create something nice for people. This makes us happy.” (Tahsin, 21 December, 2016 Ödemiş).

Another felt maker referred to the history and making process of felting that builds an emotional tie not only between the maker and the practice but also between users and the artefacts:

“Felt is the first textile ... [and] it is still produced with the same techniques ... [the material features are such that] hugging the wool is [almost] the same as hugging your mum”. (Ayfer, 20 December, 2016, Seferihisar).

This study shows that the procedures to transform wool into felt remain similar for all felt makers since the material characteristics, such as its flexibility and elasticity, remain similar across various kinds of wool. However, the type of wool can generate significant differences before making starts and after making is finalised in terms of product type, workspace and collaborators. These significant differences dramatically affect the subsequent steps, which eventually affect the practices of the maker. Our findings suggest that through interactions with wool, felt makers have developed fluid identities that are co-constituted with other felt makers and through material interaction. Next, we will discuss these themes in relation to people, things, space and time, which we adopted from MET.

**5. Understanding the Field of Felting from the Material Perspective**

Our findings are in line with Malafouris’s argument on thinking that takes place in between things, people, space and time. Although Malafouris (2008, 2013) discussed thinking in direct engagement processes, such as while throwing clay at a potter’s wheel, we find it suitable for understanding material connections and how thinking emerges through participating in the field. The empirical data demonstrates that felt makers understand and explain their maker identities as being constituted between things, such as their materials, workspace, and artefacts, people, such as their fellow makers, collaborators, audiences, and users, space, such as workspace, marketplace, and economic space, and finally time, such as by reflecting on their previous experiences and personal attachment.

In felting, things often refers to materials and tools that affect how makers think and act. Through their material interactions, felt makers design their artefacts, organise their
workspace, and review their connections to other makers. Thus, things mediate the co-emergence of the makers, artefacts, and the field. For instance, making felt by hand or with a machine can dramatically change designs, since while hand-making the design can still be altered, whereas in machine production making changes can be challenging.

Felt makers interact with many people when obtaining the material, making with colleagues, generating an audience and collaborating with other creative makers. These interactions are sometimes planned but often evolve more intuitively and require the felt makers to communicate in different ways. This encourages felt makers to think in new ways to construct a multi-angled practice. For instance, although most felt makers concentrate on making a certain type of artefact, by collaborating with various people they develop their practices. Even the makers using local wool stated that they sometimes collaborate with art students to simplify their own designs.

The interaction between things and people affects the emergence of a space that felt makers participate in. The most significant engagement space for felt makers is their workspace with its own evolving ecologies. However, the participation space can extent both physically and virtually. For instance, some felt makers employ even public space as an extension of their workspace, both to make and exhibit their artefacts. Some felt makers use their workspace for teaching the practice, exhibiting and selling their works. Within this physical extension, felt makers also extend their minds, how they think and how they make. In this sense, the marketplace and economic environment also become spaces for felt makers to operate in. For instance, most felt makers started participating in virtual space by using online platforms to exhibit their works.

Through time, felt makers continue developing their unique ways of engaging with the material to evolve in their craft. Most felt makers mentioned the importance of staying sharp and fresh by constantly searching for something new. Thus, their practices and identities are changing continuously since the flux and emerging interactions generate new knowledge as well as new experiences (Pickering, 2005). For instance, most felt makers started their practice by making traditional products, as they learned from family members, and it was only later that they began making their own designs. Thus, the time that craftspeople have been making felt impacts their practice. Also, the time that is required for making a single piece impacts the outcome and thinking of the craftspeople as well. For instance, when making small artefacts with imported wool, the time spent with the material is shorter than making an artefact from the local wool, in which case the process starts with collecting and cleaning the material. Being with the material for an extended time while making an artefact also impacts the outcome and process.

Discussing how felt makers think between things, people, space and time shows how their maker identities have been evolving in connection with material interaction. If we make sense of the world through our experiences with the material world, as Malafouris (2013, p.44) argues, then we call for a deeper and more comprehensive understanding of the world. In this understanding, the question is not who does things but instead what is
happening and will continue happening (Law & Mol, 2008, p.74). As Pickering (2010, p.18) argues, being open to what our surroundings can offer might propose renewed ways of material engagements both at the micro and macro level. At the micro-level, we might recognise how our creative practices and its surrounding constitute each other (Pickering, 1993). At the macro level, understanding the dynamic relationship between the human and the nonhuman, such as materials, can present new directions for developing “new procedures, technologies, and regimes of perception” to understand the political ecologies to which we belong (Bennett, 2010, p.108).

In this paper, we mapped the field of felting from the material perspective and identified the themes of felt-making. Although previous craft and design studies have tackled similar issues (Nimkulrat, 2012; Tung, 2012), only recently have holistic approaches emerged (Laamanen, 2016; Chudasri & Saksrisathaporn, 2017). From a holistic perspective, our study showed that, for felting, the capacities of the material are almost as important as the maker’s conscious decisions and intentions since felt makers make sense of their practice through their material interaction. Accordingly, material interaction can produce different practices and continuously transform the creative field while being transformed themselves. Therefore, we believe that this study can provide an understanding of the micro-actions and their macro level impacts. In this way, it can present new insights, including an understanding of the fluidity of practices and our strong dialogue with materials.

6. References


Material Connections in Craft Making: the case of felting


About the Authors

**Bilge Merve Aktaş** is a doctoral candidate at the Department of Design at Aalto University, Finland. She holds a BSc degree in Industrial Product Design from the Istanbul Technical University and a MA degree in Design, Technology and Society programme from Koç University in Istanbul. Her master work examined the interaction between women crafts, namely knitting, and maker movements from a designer’s perspective. For her doctoral research, she is examining felting processes to understand human material interaction from the perspective of material’s agency. Her research interests cover issues like textile crafts, design processes, practice-led research, material interaction, material agency, and experiential knowledge.

**Maarit Mäkelä** is an Associate Professor of Practice-led Design Research at the Aalto University School of Arts, Design and Architecture, Finland. Her own creative practice is located in the context of contemporary ceramic art. Her doctoral study was a practice-led research, where visual representations of femininity were produced during the research process by artist-researcher herself. The works were shown in the series of three exhibitions, and this series formed a central part of her doctoral study (Mäkelä 2003). She is interested in creative processes and, in particular, how reflective diaries and visual documentation can be utilized for capturing the personal process. She is initiator of The Art of Research conference and co-editor of the anthologies The Art of Research and Research Practices in Art and Design and the Art of Research II. Process, Results and Contribution. In addition, she has published widely in international arenas.

**Tarja-Kaarina Laamanen** works in the Department of Design, Aalto University as a postdoctoral researcher and a coordinator. She has a background as a maker, design and craft studies teacher, and a researcher. She holds a PhD and MA degree from Helsinki University, Department of Education. Her research interests are related to processes and activities of design and making in the sociocultural framework.