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KEYWORDS: Craft analysis, interlock, situated knowledge, tapestry studio, textile craft, weaving.

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Traces of a Textile Tradition

By Annelie Holmberg

INTRODUCTION

Can knowledge of craft be used as a tool in a qualitative scientific analysis? As a weaver, the answer is, of course, affirmative: knowledge of craft must be treated as any other (deep, documented) knowledge base held by a researcher. The overall focus of this chapter is to give an example of what—and how—knowledge through a practitioner’s perspective can contribute towards a deeper understanding of a craft tradition. An example of how such an analysis can be performed is presented, as well as examples of results from the analysis. The craft tradition examined in the analysis is the weaving of tapestries and the craft methods used by weavers to create them in several tapestry studios in Europe. The specific aim of this chapter is to show, through an analysis of the textile technical detail of interlocking, how a situated knowledge within a community of practice (Lave and Wenger 1991;

Nielsen and Kvale 2000) can be preserved or changed. The concept of craft tradition is here used as a wide concept, constituted by, for instance, the learning, making, and (studio) identity within a tradition. Choices of techniques, technical solutions, materials, and tools are all part of the making. A craft tradition can be affected by time, geography, and personal impact, to give just three examples (Holmberg 2015). Here, the tradition is constituted by the professional making of a specific category of artefacts—tapestries. This tradition consists of (local) craft traditions within different studios/communities of practice.

The interlock is a technical solution used by the weaver when two wefts, the horizontal thread system in weaving, from opposite directions meet in a weave (see Figures 1–5). This meeting occurs when yarn from two different colour fields are next to each other, or when weaving with several

wefts within the same colour field to prevent the weft from shrinking when finalised. An interlock, or lack thereof, is seldom created with an ambition to be noticed. Despite this, the interlock can be seen if you look closely at a tapestry. It often appears as a little knot or a small hole, depending on the method used. The focus of this chapter is upon interlocks in tapestries. This is important to outline since interlocks can be used in most kinds of weaving; for instance, interlocking is commonly used in rug weaving techniques. It is also important to state that methods for interlocking differ between tapestry studios and across time (Holmberg 2015). This chapter analyses the use of interlocks across different studios over time in order to elucidate how a craft tradition has changed through the weaver's use of a particular technical detail.

Artefacts contain information (McClung Flemming 1974; Glassie 1999; Riello 2009). To see and understand this information requires knowledge, not only about the artefact's context, but also pertaining to an ability to read the artefact and to understand what factors made it what it is today. Representatives from the subject of Textile Studies at Uppsala University in Sweden consider the ability to read a textile artefact as being dependent on possessing knowledge in textile crafts (Candréus 2008; Aneer 2009; Dahrén 2010; Holmberg 2015). For example, embroidery- and tailoring perspectives or methodologies can be employed as the basis for an analysis of both an artefact and its context where the mentioned crafts are applied. Since this chapter contains an analysis of tapestries, knowledge in the art of weaving tapestries is essential. My practical knowledge in weaving consists of one year of education at the Friends of Handicraft School in Stockholm and a degree (BA) in the teaching of textile craft at Uppsala University. Further, my

specific knowledge in tapestry weaving consists of a four-year apprenticeship at the Friends of Handicraft studio. Within my postdoc research in the subject Textile Studies, I have also studied the practical work of tapestry weavers and visited a number of tapestry studios. As a teacher of Textile Studies, I have educated students in basic weaving and tapestry weaving for nearly ten years. The subject of Textile Studies is organised within subjects of Humanities. From its very beginning, Textile Studies implemented a strict tradition of writing in a particular way, where the writer's craft knowledge is implicit in the text. This chapter can be seen as my attempt to change the way of writing, it is a way to visualise the importance of a practitioner's perspective in Textile Studies research. At the same time, I am educated within a tradition—a tradition which is visible in my text despite my efforts to change.

RESEARCH CONTEXT

Important as a manifestation of wealth, and practical in their ability to be moved between and in buildings tapestries have historically had a function within interior design. Tapestries have been—and still are—made with an intention to create an artistic expression, to affect the viewers or to create a specific atmosphere. The expression, traditionally and historically, consists of a composition: a picture mediated in textile materials. The medium is reliant on weaving techniques. Historically, the technique used has been the weft ribs technique,¹ which refers to a structure where the warp is invisible and the visible weft creates the pattern (Geijer 1972, 59). The technique can be seen, for instance, in Coptic fragments of tapestries dating from between the third and the fifth centuries and in medieval tapestries from Germany, Switzerland, and France

(Geijer 1972, 112–15). The choice of material for warp and weft has a direct effect on the tapestry's expression. The material in the warp mainly affects the structure of the weave's surface, while the material in the weft affects the main expression of the tapestry and if the tapestry is shiny or lustreless. The weft in tapestries of different times and cultures has most frequently been of wool and/or silk, though metal thread has also been frequently used. Textile artist and author Anni Albers defines the concept of tapestry weaving as follows:

Taken in its widest meaning, the term encompasses the various techniques that can be used to mark off different areas of color and surface treatment from each other in the woven plane. In a narrower sense, the term refers to a technique of weaving, or variation of it, where the weft thread, covering the warp completely, passes only over the surface of those sections of the weaving that are to be built of it. The thread then interlocks at the borderlines, either with neighbouring weft threads that meet it or with a warp thread, before turning back, after a change of shed, into its own field. (Albers 2017, 48)

Historically, tapestries have been produced primarily by studios. Today, tapestry studios still exist but the production of tapestries is more frequently connected to a textile artist and it is this artist who is understood as the producer of the tapestry. The looms used for weaving have varied across time, country, or studio. Such changes will be addressed later on in this chapter. The two traditional looms for tapestry weaving are the *haut lisse* and the *basse lisse*. The *haut lisse* is a high-warp loom and the warp is vertical; the *basse lisse* is a low-warp loom and the warp is horizontal (Soroka 2011, 8). A third kind of loom is also being used. According to Fiona Mathison, the use of this loom is connected to geography:

“Much of the tapestry in Scandinavia is made on low cloth-weaving looms, and the relationship between cloth weaving and tapestry is often exploited” (Mathison 2011, 46). In the loom Mathison is referring to, the warp is horizontal and there is an upper construction for the changing of shafts.

This chapter analyses the weaving of tapestries in three textile studios. The choice of studios was motivated by an agenda to represent different methods for interlocking. Educating weavers and an awareness of the history of tapestry weaving is shared among each of the chosen studios, despite the establishments all being independent of one another. A textile studio manufactures textiles according to principles of craft, not principles connected to industry; this conclusion is based on my prior studies and visits to more than ten different textile studios (Holmberg 2015). The employed weavers are often tutored within the establishment according to the latter's own traditions, with the apprentice learning from a master.

The oldest establishment mentioned in this article is La Manufacture des Gobelins (Les Gobelins) which was founded in 1662, in Paris, as ordered by Louis XIV (Conradi-Engqvist 1994, 158). Since this establishment was commissioned to produce tapestries for the court, La Manufacture Royale Beauvais (Manufacture de Beauvais) was founded two years later to produce tapestries for private costumers (Conradi-Engqvist 1994, 165). Both of these establishments are still active today and are organised within Mobilier National, which services the French State with supplying and preserving interior design related products. A more recently established workshop studied in this chapter is Dovecot Studios, founded several hundred years later in Scotland, in 1912. The studio was initially founded with the ambition of making tapestries for

its founder, the 4th Marquess of Bute. Today the establishment is a commercial studio in Edinburgh where tapestries can be commissioned (Cumming 2012). The establishment now consists of a gallery and a tapestry studio.

Additionally, two Swedish studios are part of the analysis. These studios differ from the international ones as they have produced both woven and embroidered products—not foremost tapestries.

In 1874, a group of women with aims both to preserve and to develop the Swedish textile tradition founded Friends of Handicraft (*Handarbetets Vänner*) in Stockholm. The production of textiles within this studio has always included products made through weaving and embroidery. Previously, the weavers and embroiders at the studio tended to be specialised in one technique, though today they are more flexible in their work. In the past and to the present day, the production consists predominantly of banners, stage curtains, liturgical vestments, and tapestries (Holmberg 2015). The second studio, Alice Lund Textilier AB in Borlänge, was founded in the 1930s by Alice Lund. Initially the studio's production had a focus on textiles for interior design, which changed in the 1950s and 1960s when a production of tapestries was initiated (Sangwill 1994). Today's production generally consists of woven tapestries and carpets, though products involving embroidery techniques are sometimes produced.

The production of tapestries within all of the aforementioned studios is reliant on the work of highly skilled weavers who are trained specifically in the art of weaving tapestries. The studios make their tapestries in collaboration with an artist who produces the sketch that is used as a model for the tapestry. The weaver—or weavers, since several persons often collaborate on the same production—

interprets the sketch and meets with the artist continuously during the weaving process. The aim of such meetings is not only to evaluate the ongoing work but also to enable an understanding of the artist's intentions that are not always visible in the sketch. These meetings contribute another dimension, as the unspoken can be heard and the unvisualised can be seen (Holmberg 2015). An exception to this way of working exists at Dovecot Studios (and, for instance, West Dean Tapestry Studio), where many of the weavers are trained textile artists who sometimes use their own sketches for the production of a tapestry. This way of working was initiated in the 1940s when new apprentices were hired (Cumming 2012, 18) and is not a process found in Sweden (Holmberg 2015).

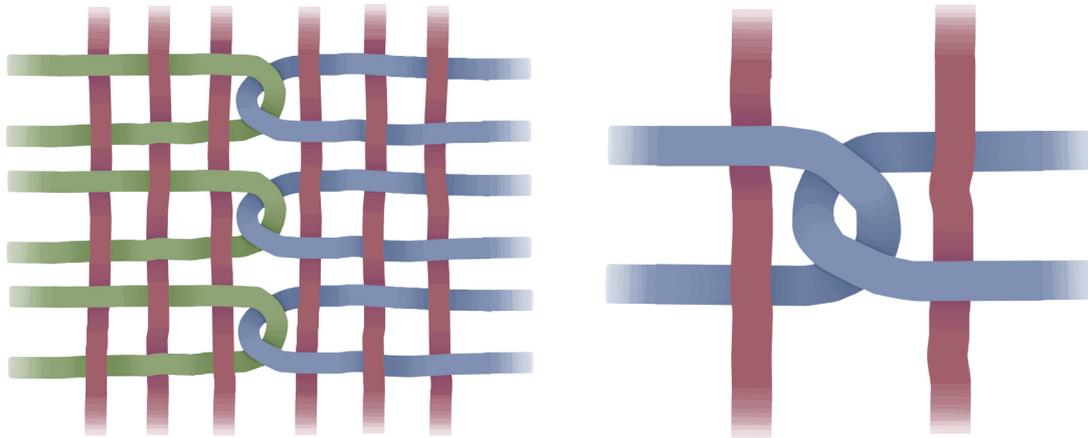
It is important to state that almost all of the establishments mentioned in this chapter have different forms of units—whether as galleries, shops, or places of education—within their operation. When I mention, for instance, Friends of Handicraft or Dovecot Studios, I refer to their production of tapestries, which takes place within their tapestry studios.

WEAVING METHODS

To make the reading of a text filled with textile terminology easier, the most important terms are defined below.

Single Interlock

When two wefts meet, they hook into each other. It is important in this method that the interlock follows the weave technique (here, a tabby or weft ribs). Collingwood (1978, 174) calls this “woven with contrary motion of wefts.” This interlock can be woven from the reverse or face side (see Figures 1–2).



Figures 1–2: (Left) Face and/or reverse side. (Right) Close-up.
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Double Interlock

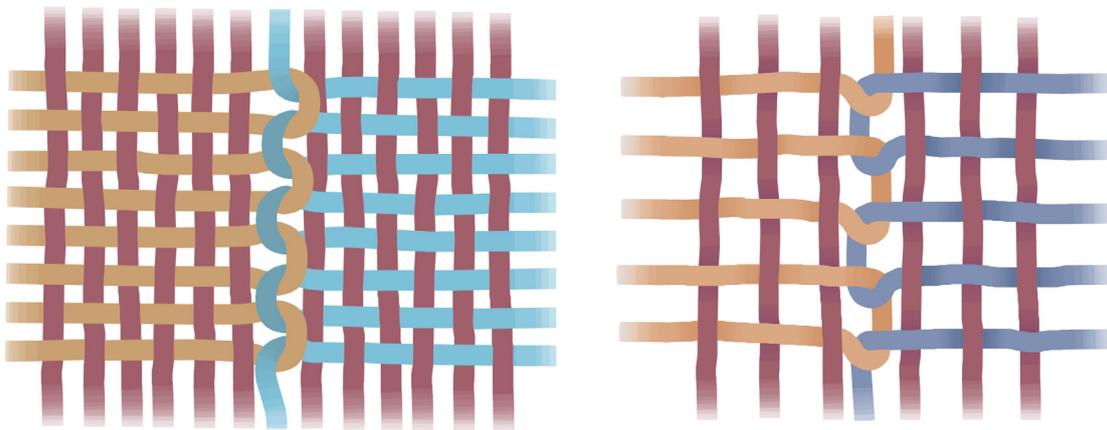
This interlock is characterised by the fact that the weft hooks over/into two threads before it weaves back into the next shed. On the reverse, a line similar to a ‘chain’ is being shaped in the direction of the warp. This method is almost exclusively approached through weaving from the reverse side. To weave this interlock from the face side is almost impossible since the weaver would have to create the interlock on the reverse side, which means working on the wrong side of the warp or between the warp threads (see Figures 3–4).

Without Interlock

When there is no interlock used, weft threads meet in one shed (the term given to the gap through which weft threads are woven) and turn back in the next shed without interlocking with each other. This creates a small hole, the size of which depends on the thickness of the weft and how many wefts there are per centimetre. This method can be woven from the reverse or face side (see Figure 5).

Slit Tapestry

In tapestries, this technique refers to a method where the weft does not interlock (as described above). This is done several wefts after each other between the same warp threads, thereby creating a larger hole (a slit). Collingwood described this technique as follows: “The distinguishing feature of the vertical colour junction in slit tapestry is the absence of any interlocking of the two wefts involved” (Collingwood 1978, 169). The method most used to close the slit involves the weaver stitching the two edges of the slit together. This is done from the reverse side, after the weaving has been completed. This method is also used in carpets woven in weft ribs without pile and is then referred to as the Kelim Technique.

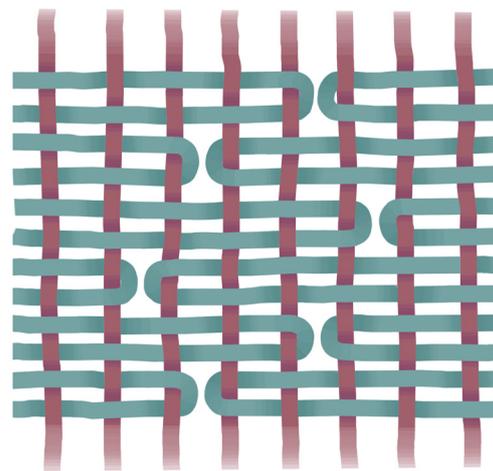


Figures 3–5: (Left) Reverse side. (Right) Face side. (Below) No Interlock. © Annelie Holmberg.

METHODS AND THEORIES

Which academic methods and theories can be employed when the topic of the research is a textile and the work made by weavers? The answer to this question must focus on the craft artefact and related craft skills. Therefore, an analysis of the craftspeople's competence, context, and personal choices is essential to ascertain an informed understanding of the object. In this analysis, it is important to state that my knowledge of weaving is a code competence. This knowledge is a foundation and is present in all parts of the research; it outlines research questions, choice of material, and theories. When, for instance, reading texts describing weaving or the organisation of a studio, my craft knowledge enables a specific understanding of this information.

Methods from the field of material culture have been used by several researchers working within Textile Studies (Candréus 2008; Aneer 2009; Dahrén 2010). Material culture is defined by Henry Glassie as:



[...] culture made material; it is the inner wit at work in the world. Beginning necessarily with things, but not ending with them, the study of material culture uses objects to approach human thought and action. (Glassie 1999, 41)

In the present chapter, artefacts are used in an analysis of the weavers' choices of methods, specifically how they have chosen to act and what the reasons behind their choices of actions are. Glassie suggests that artefacts can aid in telling a story when documents fail to do so; other times, artefacts can tell a story with the help of documents

(ibid., 45–47). The use of interlocking, or other alternative methods for managing the meeting of two wefts, is not mentioned in any internal documents describing the work of the studio at Friends of Handicraft. Nor is it mentioned in literature about the studio. Choices concerning technique appear to be unimportant; they are either taken for granted or subordinated to the artistic expression. Additionally, the use of interlocking is not mentioned in personal work logs, business stories, or in registries of production. Written sources are therefore seldom useful for providing information about choices of methods or technique. They are useful, however, in relation to the context, which can tell us about the reasons behind particular choices and changes. Verbal sources, on the other hand, do provide us with information about methods and techniques. Craftsmen from the studios have given affirmative evidence about the changes to and use of interlocks. During this verbal communication, a study of the artefacts either preceded or was included during the discussion. Information from the artefacts themselves was therefore an important aspect of verbal communication.

The use or role of the artefacts as a source in research can vary amongst researchers in the same way that the perception of the necessary required knowledge can vary. McClung Flemming (1974) argues that the reading of artefacts, referred to as nonverbal documents, demands a form of literacy in the same way that the reading of a verbal or written source does. He claims: “In the case of the nonverbal document, he [the reader] must understand the vocabulary of material, construction, design, and function and how they are put together” (ibid., 160). Use of knowledge through craft (as a code competence) in an analysis is implemented by, for instance, Almevik (2014), Aneer (2015), and

Rasmussen (2010). The methods Almevik uses to answer questions about the intentions of builders and the impact of inhabitants on an older house demands practical knowledge, thus enabling an analysis of traces made by tools and choices in construction. Aneer and Rasmussen both use costumes in their analysis. While Rasmussen claims that knowledge of craft shapes her research questions, both regard this knowledge as a foundation for their analysis. Knowledge in tailoring contributes with information about pattern construction and sewing, allowing the researchers to distinguish cultural and social settings in addition to periods in time. Aneer states that the foundation of this knowledge comes from one’s own experience of craft, as well as from theoretical studies in the subject (Aneer 2015, 201).

Artefacts should be considered as a part, or a product, of their context. However, this context can be difficult to grasp as it is easy to notice the observable whilst overlooking the subtle. It is important to notice different aspects of the context as this can work to mediate different meanings the artefact may bear (Glassie 1999, 48). The context can, for instance, mediate use and circumstances for production, and grounds for these—all settings that can change the narrative of the artefact.

In this research, the historical craft traditions within the different studios and the studios themselves become the context for the textile artefacts. To enable the possibility to note variations within a context, Glassie suggests that the analyser uses categories “to envision context as a series of occasions belonging to three master classes—creation, communication, and consumption” (Glassie 1999, 48). In this chapter, I use these three categories in my analysis concerning the following research question: *How can knowledge of craft contribute*

towards a deeper understanding of a craft tradition?

‘Creation’ refers to the making of artefacts and the choices made during the process, which could be considered as parts of the context. ‘Creation’ also consists of processes such as learning, teaching, cooperation, and memory. The category of ‘communication,’ with under-contexts of collaboration, donation, and commerce, focuses on the meanings that the artefact mediates—meanings that can be noted during the production stages, but which become fully apparent when the object is complete. These categories can sometimes be difficult to separate, which becomes particularly apparent with the last category stated by Glassie of ‘consumption’. This category is directly affected by ‘consumption,’ as well as by ‘creation,’ by virtue of the producer’s intentions affecting consumption. This means that the artefact’s appearance, materials, and value are affected by all parts of the creation and this can change the outcome for consumption. Importantly, the category of ‘consumption’ also contains the use of the artefact—a use that can change with time and ownership (Glassie 1999, 48–58). It is therefore important to see the categories separately and in terms of how they intersect with one another.

The context of research is that within the studios and not the context of textile art during the twentieth century. Although changes within the expressions of textile art are relevant, the focus of this chapter is instead on the analysis of the tapestries from a perspective of craft. The studios whose choices in production are being analysed can be seen as closed places where a specific knowledge can develop and be preserved internally. The studios are to some extent aware of each other’s existence and production, but cases of cooperation or exchange of personnel are almost non-existent. A tradition of being trained in-house, by a resident master, can

be found in all of the studios. This kind of learning contains a formation of a professional identity that is created within a community of practice through non-formal tutoring and which is evaluated through (and during) practice (Nielsen and Kvale 2000). Communities of practice are thereby formulated and reformulated over the years within the studio. The practice can change (and be challenged), for instance, by an artist’s specific expectations or external demands for change.

I apply the concept of *situated learning* in the analysis. Situated learning focuses on the teaching by a resident master, as described by Nielsen and Kvale (2000), though with an explicit emphasis on the community of practice and how an identity develops within this specific practice (Lave and Wenger 1991). When the non-formal, in-house learning takes place, the apprentice, according to Lave and Wenger (*ibid.*), more than observes and imitates. The observation and imitation “crucially involves *participation* as a way of learning—of both absorbing and being absorbed in—the ‘culture of practice’” (*ibid.*, 95). The participation is therefore essential to situated learning, a participation where the apprentice is an active part of the practice. The learning of the apprentices (or masters, since the learning is a continual process) is not only “work-driven” but is instead implemented by events in the everyday practice. This means that the learning is not always progressive; an essential understanding is gradually shaped and reshaped. Situated learning involves the whole person. A person’s identity is affected by the implication of becoming a full participant and the right kind of person: “Thus identity, knowing, and social membership entail one other” (*ibid.*, 53). In this chapter, the textile studios are seen as communities of practice and the learning within these communities is situated. Traditions and changes are consequently affected by this.

ANALYSIS OF METHODS AND MATERIALS

The following analysis of more than 50 artefacts has been carried out upon materials consisting of tapestries from the aforementioned studios: Friends of Handicraft, Alice Lund Textilier AB, Dovecot Studios, and Les Gobelins. To be able to place the present in a historical framework, the weavers' work has been related to the use of interlocking in the respective histories of each of the studios. The founding of Friends of Handicraft in 1874 is used as a starting point for the period of time addressed. All other studios mentioned here (except Les Gobelins) were founded at a later date.

Samples of tapestries and completed tapestries from the different studios have been studied, sometimes in archives and other times in galleries or during production. Verbal sources are also used to complement the analysis. To obtain these, I have visited the studios and interviewed the weavers, or persons responsible for the studios, about their use of interlocking. During these visits, my knowledge of weaving enabled me to ask questions and make observations from a weaver's perspective. I was a fellow weaver with a research perspective. Literature about both the general art of weaving tapestries and the particular studios has also been used. In the analysis, the weavers tend to be invisible. This is not with an intention to degrade the work carried out by the craftsperson. This is due to the fact that the interviews with weavers and embroiders at Friends of Handicraft were performed with an assurance of their anonymity in publications. Furthermore, samples and tapestries are not always labelled clearly with the weaver's name. Instead, it is the artist's name and a studio-mark which appears clearly.

The analysis of the artefacts (the tapestries and the samples of tapestries) performed below is inspired by the system advocated by, for instance, Prown

(2001) and McClung Flemming (1974). Both propose a system where the focus is on identification of an artefact from a broader point of view, where cultural analysis and interpretation/deduction are parts of the analysis. Important in these methods, or models, introduced by Prown and McClung Flemming is that the questions or categories are used methodically in a qualitative and reflexive way, in accordance with aim, method, and material. Inspired by this I began with the basic information of the artefact and continued towards an interpretation or deduction of the artefact. The same questions were asked during the observation of all artefacts, and were not affected by production date/year, or if the production was still ongoing on a loom. When possible, both the reverse and face sides of the tapestries were observed. The questions asked were as follows: What weaving technique, warp, and weft material are used? What type of methods have been chosen when two wefts meet? Can the methods vary within the same tapestry? Can the artistic expression, material, and/or technique explain/affect the chosen methods? Do the chosen methods require work being done after the weaving? These questions were asked even though not all of the tapestries from the chosen period were analysed due to various accessibility circumstances, which affected, for instance, the selection of the tapestry and the ability to see the reverse side.

In the second phase of the analysis, Glassie's approach to contextual analysis, which considered the categories of creation, communication, and consumption, was applied. This was done with an aim to explain the use of different methods. By analysing sources describing the work carried out at all of the studios through these categories, similarities and differences were made visible. Sources included were literature, observations, verbal sources, and artefacts.

ANALYSING TEXTILES FROM A CRAFT PERSPECTIVE

The aim of this chapter is to provide an example of how knowledge of craft can contribute towards the analysis of a craft tradition. In this case, the particular knowledge is my own weaving education and work experience as a tapestry weaver, developed over the time I spent weaving within a community of practice. This knowledge and experience has given me the ability to notice particularities of weaving, such as the effects of choices of technique, the methods for creating shades of colour, the choices of material for warp and weft, and the use of different tools and their (possible) influence on the product. A concrete example of how craft knowledge contributes to an analysis undertaken by me, not a part of this study of interlocks, is when I observe the choice of warp material made by different studios. When I notice what kind of material the weavers have chosen, I know how that particular material feels in my hands. I can identify the different characteristics of materials, the spinning angle and how the weft is affected by this specific warp material. My competence leads to an understanding of how Dovecot Studios' use of a firm, round re-plying cotton yarn (in Swedish this is called fishnet twine) and Friends of Handicraft's use of several linen threads (often 16/2) taken together as one thread, each affect the weavers' work as well as the structure of the weave. These results lead to my understanding of why particular choices of material are made, why these choices are important, and how these choices have an effect upon the conditions for production. As a specific example of this, I can state that the warp used at Dovecot Studios is ideal for weaving weft reps while the use of several threads as one thread, as used at Friends of Handicraft, is helpful in the use of a

visible coloured weft in a tabby. The knowledge of craft is also used in the analysis of documents from the studios and literature describing the context.

A product of my knowledge and experience is that the analysis has excluded the artistic aspect of the tapestry. The latter would be an analysis of textile art. I have mentioned this only when it is a relevant consequence on the weavers' work. I have instead chosen to see the art as objects and to maintain a focus on the textile craft techniques.

The analysis of process and the understandings had, are presented under three sub-headings below. The first two focus primarily on the artefacts while the last focuses on the context. Complementary sources—here, verbal and written sources—are used in an attempt to deepen the analysis of both the artefacts and the context. The two first parts are structured according to the use of methods for the meeting of wefts. The weavers' choices, within the different studios, are thereby linked to each other with an aim to show differences, similarities, and change.

CONSEQUENCES OF THE USE OF SLIT TECHNIQUE

The production of tapestries at Friends of Handicraft was probably initiated in the 1890s (Danielson 1991, 27). In the tapestries older than the 1950s examined from this studio, two kinds of methods were used when wefts meet. The most common was the method where wefts do not interlock, but instead weave back into the next row. The second method involves a double interlock and can be noted, for instance, in tapestries from the seventeenth century as well as in tapestries from the early years of the twentieth century. This method is used when the wefts meet between the same warp threads more than three to five times.



Figure 6: Face side of the sample from Friends of Handicraft, made in 1901 and composed by Maja Sjöström. The double interlock is used, but there is also an absence of interlock when the wefts meet in other areas of the tapestry. A smooth surface is created on the face side, and slits are visible in the edges of the green leaves. Photograph by Peter Segemark / Nordiska museet, Sweden.

Figure 7: (Next page) On the reverse side of the sample from Friends of Handicraft, the effect of the double interlock is visible as vertical lines shaped in two colours. Using this interlock made the practice of stitching slit unnecessary. Photograph by Peter Segemark / Nordiska museet, Sweden.

The double interlock can also be noted in tapestries produced at Les Gobelins in Paris. Representatives for Les Gobelins state that this method was introduced as a way to make the production more efficient, decreasing the need for further labour after a tapestry had been taken out of the loom. The necessity for stitching the slit no longer occurs when a slit is no longer formed due to the use of a double interlock (verbal source, Les Gobelins 2014). According to records at Friends of Handicraft made in 1902, the tapestry weaver Elin Öberg received a scholarship that enabled her to be

present at Les Gobelins for two months (Årsberättelse 1902). There is a possibility, then, that Öberg learned the use of double interlocks at Les Gobelins, and implemented the method at Friends of Handicraft. With this in mind, it is important to state that the sample above (Figures 6 and 7) is said to be produced in 1901. This shows that the use of the double interlock was known within the studio at the time. Records confirm that the women in charge of the establishment, as well as some of the artists, weavers, and embroiders, travelled to France (for example) in the years around the end of the nineteenth century



and the beginning of the twentieth century (Danielson 1991, 105). This suggests that knowledge about craft methods could have been transformed in different ways and at numerous times as a result. At the same time, one must bear in mind that this kind of interlock is used in traditional Swedish Flamsk weaves. The knowledge of weaving Flamsk must have existed at Friends of Handicraft since these kinds of artefacts existed in their collection of textiles. Products made according to the Swedish textile tradition were also produced and sold, all in alignment with the aims of the establishment.

If the double interlock is a way to make the production more labour and cost efficient, my next question was to ask whether any other studios used it. Samples I studied at Dovecot Studios show that this method was also used by their weavers. Dovecot Studios were founded in 1912 and the weavers visited exhibitions and Les Gobelins in the 1920s (Cumming 2012, 15). It is possible that the weavers could observe tapestries from a technical point of view in Paris. At the same time, weavers at the studio in Scotland had former experience of tapestry weaving from the arts and crafts studio Morris &

Company, established in 1881 (*ibid.*, 10). One can assume that the work at Morris & Company was carried out according to the traditional methods of tapestry weaving, since the work within the arts and crafts movement was always produced utilising historical methods (Todd 2004).

A change in the use of the double interlock can be noticed in tapestries and samples at both Friends of Handicraft and Dovecot Studios in the 1960s. The actions in both studios can be related to the fact that the weavers, from then on, wove with the face side towards the weaver (not, as previously, with the reverse). The change at Friends of Handicraft will be discussed in more detail below, since the studio chose a completely new approach. The change at Dovecot Studios was initiated by the artistic director Archie Brennan (Cumming 2012, 37). The double interlock is hard to weave when you have the face side upwards; it is not impossible, but through experience I know it is ineffective and difficult since the interlock is located on the reverse side. At Dovecot Studios the technique 'sew-as-you-weave' replaced the use of the double interlock. In this method, the weaver stitches the slit together during the weaving, with a needle threaded with a coloured thread, suited to the colours of the weave. Sometimes a thread of the same material as the weft was used and, other times, alternate materials were selected (verbal source, Dovecot Studios). This method has the same time-saving effect as the double interlock but can be done from the face side.

THE USE OF INTERLOCK—OR NOT—AT TWO SWEDISH STUDIOS

As mentioned previously, a change in the way of weaving tapestries occurred during the late 1960s at Friends of Handicraft's studio when the single in-

terlock was introduced. An example of this is found in the tapestry *Vi-We-Nous*, created from a sketch by Siri Derkert in 1963, where the weaver did not use an interlock where the wefts meet. A change can be noted in samples of tapestries from the early 1970s. In these, the single interlock dominates. The change cannot be connected to the weaver. For instance, the weaver Ruth Larsson was part of the crew in the production of both the tapestry based on the sketch by Siri Derkert and several of the samples from the 1970s. Since the 1960s, the *haute lisse* loom, with a vertical warp, was replaced by a traditional loom with a horizontal warp, ordinarily used to produce fabric or carpets and with an upper construction for the changing of shafts. Therefore, the traditional tapestry loom, *haute lisse*, was out of use (verbal sources, Friends of Handicraft). Mathison (2011) regards the use of a traditional loom in the production of tapestries to be typically Scandinavian; documents and interviews indicate that the use is connected to a changed praxis at Friends of Handicraft rather than geography. The choice of loom does not show in the tapestries, though the choice of methods can sometimes change in accordance with the loom selected. In the analysis of the tapestries and samples, a change in the thickness of warp and weft can be seen to have occurred during this time. Warp and weft threads with lower rates per centimetre are also found today. These changes make the meetings of two wefts without interlock more visible than when there are more numerous wefts per centimetre.

At the same time as tapestries were being woven in the studio of Friends of Handicraft, tapestries were also woven at Alice Lund Textilier AB. Studies of samples of tapestries from this studio show that the most commonly used method is not to interlock the weft, but instead to turn it back in



Figure 8: Sample from the early 1980s woven at Alice Lund Textilier AB after a sketch made by Dagmar Lodén. Slits are used to amplify the lines. Photograph by Peter Segemark / Nordiska museet, Sweden.

the next shed. In some tapestries the holes which are created when the thick weft does not interlock are used as part of the expression. A line can be amplified by the holes in the weave (see Figure 8). Here, I'd like to point to the difference in analysis made from a craft knowledge perspective, as I believe my knowledge in the craft of weaving clearly affects this analysis. An analysis performed by an art historian, for example, might focus on the expression of the weave and how shadows are created within it, rather than on how a technical method together with the thickness of the weft creates an effect. During the 1970s–1990s, this studio and Friends of Handicraft often worked with the same

artists. In these cases, tapestries and samples show that the use of methods cannot be related to the artist (Holmberg 2015). Choice of loom, thickness of warp/weft, number of warp/weft threads per centimetre, and the practice of weaving with the face side up are all shared between Friends of Handicraft and Alice Lund Textilier AB. Despite these similarities, my analysis reveals that the weavers used different methods when two wefts meet.

As stated earlier, neither the artistic expression nor the artist making the sketch seem to matter in the choice of method for interlock. Despite this, one has to note that the weavers at Alice Lund Textilier AB change their method when they make

tapestries for the textile artist Helena Hernmarck. She favours a technique with floats on plain weave, and the use of the single interlock for the meeting of wefts (verbal source, Alice Lund Textilier AB). It is important to state that Hernmarck is educated in weaving and is a weaving textile artist, and is thereby more capable of discussing and evaluating technical methods within textiles than an artist without any textile education. Tapestries designed by this artist have formed a substantial part of production at the studio after 1975. This fact might change the weavers' future choice of method—something which will be revealed over time since this production is still ongoing. It is worth mentioning here that the single interlocks are mostly invisible in Hernmarck's tapestries since floats cover them; this can be interpreted as indicative of the choice of interlock being based more on technical characteristics than on artistic expression.

Regular cooperation with a specific artist has also occurred at Friends of Handicraft. An example of this is with the artist Lennart Rodhe, who, despite also sometimes collaborating with Alice Lund Textilier AB, produced various textiles at Friends of Handicraft's studio across roughly thirty years in the last half of the twentieth century. Rodhe was not an educated textile artist, as Hernmarck is. Nevertheless, he sometimes presented specific suggestions about weaving techniques. In one production, he wanted the weavers to use what he understood as traditional methods, such as hatching/hachure and the use of no interlocks (verbal source, Friends of Handicraft). By studying the technical methods in woven samples, I can confirm that the weavers made samples to convince Rodhe that the technique they usually used—single interlocks and dyeing colours instead of hatching/hachure—was as good as the suggestions that he made. The two

tapestries produced by the weavers of Friends of Handicraft for Rodhe demonstrate that they used the methods traditionally used by their studio in the 1990s: single interlock and, instead of using hachures, they dyed the materials to achieve the necessary colours. Despite the artist's initial intentions, the studio's methods of production did not change—the studio's traditional method at the time was the weavers' choice.

THE CONTRIBUTION OF CONTEXT

An analysis of the above contextual circumstances has been undertaken with the use of Glassie's categories: creation, communication, and consumption. In the following part of the analysis, literature, verbal communications, and observations are the main sources—the starting points for this analysis are the understandings had in the analysis of the artefacts above.

The concept of 'creation' is connected to the choices the weavers make when they produce a tapestry. These choices are connected to the person as well as the community of practice within the different studios. According to the analysis of the artefacts, the weavers at the different studios and at different times have chosen different methods when it comes to conducting the meeting of two wefts. Nowhere in any of the studios' sites have I noticed written instructions or pictures about how this meeting should be done. According to verbal sources (Friends of Handicraft; Alice Lund Textilier AB), the learning mostly takes place during the production, even though the apprentices have weaving skills when they are hired. Both Les Gobelins and Friends of Handicraft have a school/education within their establishment; practice is thereby produced and reproduced—the learning is situated. Alice Lund Textilier AB and Dovecot Studios both

hire individuals with external competence and then train them in-house. Through the learning tradition of masters and apprentices, knowledge is passed on from one generation of weavers to another. In interviews, the weavers and embroiders at Friends of Handicraft talked about who they learned their craft skills from, who they worked with over the years, and who made a specific impact upon their development. The weavers mention differences between different weavers' interpretation of colours and structure (from sketch to tapestry), which can be noticed in samples. At the same time, weaving technique and choices of methods are, overall, the same among the weavers. Even though the mentioned differences exist, the weavers have some room for individuality, although this room exists within common grounds which seem to be difficult to evade (verbal source, Friends of Handicraft).

When several weavers work together, they can learn craft skills which could potentially transform the practice. This learning appears to take place when it comes to the expression (for instance, through colour and structure) but not when it comes to technique and methods. To enable a change of technique and methods seems to require actions, which are connected to the concept of 'consumption'. The use of double interlock, single interlock, or 'sew-as-you-weave' can all be seen as methods to increase efficiency and to make the work required after the weaving less time consuming. Weavers at Friends of Handicraft claim that the artistic leader, Edna Martin (1951–1977), was responsible for the changes made in the methods of production. In the 1970s, for instance, Martin was responsible for the change of loom and the method to weave with the face side up (verbal source, Friends of Handicraft). It is important to state that she was also responsible for the establishment's economy, so the change may have been connected to thoughts about what was

the most cost-efficient way to produce.

When it comes to 'communication' the tapestries are made with an intention to transfer a message, a feeling—an artistic expression. The colours, the composition, and the use of material are all chosen with an aim to create an artistic work. The choice of method for meetings of the wefts rarely affects the expression. The weavers can sometimes use slits to (for example) amplify lines; this can be seen in tapestries made at Alice Lund Textilier AB and Dovecot Studios. Double interlocks and the sewn slits can only be seen from the reverse; from the face side these methods are invisible and the expression is thereby unchanged by the use of these methods. The choice of thickness and density of the warp and weft affect the communication, which affects the tapestry's expression and might be grounds for the choice of methods of interlock. The weavers at Friends of Handicraft started to use a sparser weft and, indeed, abandoned weft ribs for a weft density which was closer to those found in a tabby during the 1970s (seen in samples at Friends of Handicraft). The use of a single interlock prevents visible holes from being formed in this new quality created at Friends of Handicraft. At the same time, Alice Lund Textilier AB produces tapestries of a similar quality, and does not use the single interlock.

To conclude, the expression communicated by the tapestry can be affected by technical solutions and methods. At the same time, when comparing the work of several studios, the analysis shows that the choice of technical solutions and methods can be connected to traditions or changes within the different studios rather than an aim for a specific expression. Practice and directives within the studio are shown to trump an adaption or change connected to the tapestry's expression.

The communication might be affected by the recipient of the communication and their competence in weaving. The artefact mediates meaning both during the production and once it is a complete object. The weavers are thereby recipients of the communication they themselves are creating—the artefact. The knowledge of weaving and the impact of different methods create a framework for the weavers' choices in performing the craft. The framework can be seen as part of the situated knowledge and affects what the tapestry is mediating since the choices are materialised. The weavers are an active part in the process, and choices of how to execute the meetings of the weft can have an effect. How distinct the effect is can depend on the thickness of the weft and the density of the warp.

As previously mentioned, the choice of method can be made on the basis of economy; in this way, the making of the tapestries can be analysed with respect to the concept of consumption. I must point out that the making of tapestries is a time-consuming craft, meaning that efficiency and profitability are words seldom mentioned in connection with this production. At the same time, the studios are all businesses with weavers as employed staff. Because of my own knowledge in weaving, I notice the use of interlocks, but the question is whether or not a potential buyer will do so too. This is not mentioned in any documentation or literature. Few of the verbal sources mention this. A likely conclusion is that the artistic expression and price are the decisive factors when it comes to consumption, not something so often invisible as an interlock.

The use of the tapestries has not been analysed. The customer's perspective is not part of any documentation, literature, or verbal source. Despite this, I can state that the different interlocks do not affect the function of the tapestry, thereby the use is not affected by the choices or changes of methods.

KNOWLEDGE THROUGH CRAFT AND ITS CONTRIBUTION TO THE ANALYSIS

Two research questions have been answered in this chapter. The leading question is: What kind of impact can knowledge through craft have on an analysis of a craft tradition? The more specific question in accordance to the focus of this chapter is: Can the analysis of the technical detail of interlocking demonstrate how a situated knowledge within a community of practice can be preserved or changed?

I study textiles through my knowledge of weaving—a knowledge that consists of a deep understanding of materials, tools, techniques, quality of textile materials, and production within a community of practice. This gives me an ability to see technical details and relate these to aspects of manufacturing and textile craft traditions. My experience as a researcher in the subject of Textile Studies, which has a focus on textile craft and textile artefacts, shapes the way research aims, material, methods, and theories are selected. At the same time as presenting an argument on the impact that a knowledge through craft can have upon an analysis, it is important to state that this (my) knowledge can also function as a restriction. It comes with a specific terminology and is easily influenced by where and when it is learned. Such knowledge is thereby at risk of being exclusive and subjective. This circumstance indicates the importance of using complementary sources and of taking an objective approach to the premises of one's knowledge and methodology so that the research does not become exclusive or restrictive.

Can you claim to notice changes within a craft tradition through such a detail as the use of, or absence of, interlocks? The choice of method for the meeting of two wefts can appear as a small detail—and in some ways it is—but despite this, my analysis

above shows that this detail is affected by changes within the studios. The changes differ between the studios, despite a joint tradition connected to the traditional weaving of tapestries. When the respective leaders of the studios at Dovecot Studios and Friends of Handicraft made changes concerning the side of the weave facing the weaver, this probably changed the use of method for interlocks. The weavers' way of performing part of their craft was thereby transformed, and the community of practice was changed. Several years after this change, the 'new' methods were used to such an extent that some weavers expressed that use of another method is, if not impossible, certainly not preferred (verbal sources, Dovecot Studios and Friends of Handicraft). The learning of new weavers is situated within a studio context and is thereby taught according to the practices used in that establishment.

The context shows use of different tools and variations of warp density and thickness of wefts among the studios. These are changes and differences which are difficult to notice without knowledge of weaving. If you have the knowledge, it gives you an opportunity not only to notice these features but also to understand that they can have an impact on the weavers' choices of methods and other issues that affect the design process or economy of the studio. I know what causes difficulty when weaving, what effects a sparse or thick warp will have on the wefts, and thereby whether aspects of craft have affected the production over time. This verifies an impact of knowledge through craft in an analysis. My knowledge of weaving, through professional practice as a weaver at a studio and my education, is embodied and persistently present in every analysis of textiles, interviews and written sources that I undertake.

CONCLUSION

To conclude, a practitioner's perspective contributes immensely to the analysis of artefacts, written sources, interviews, and observations. When this knowledge is employed, it opens up new possibilities for different questions to be asked than have been asked by other researchers. Without this (my) specific knowledge, the questions—and answers—would be different. An example of this are questions like the following, used in the analysis: Can the artistic expression, material, and/or technique explain/affect the chosen methods? The answer is that the artistic expression, material, and/or technique sometimes affect the choice of methods, but the choice is also affected by traditions and aspirations within a studio and the studio's staff. This answer is dependent on my knowledge of weaving: I see the difference between using a hole, created by using no interlock, as an artistic expression or an effect of the method. I can follow the use of material in the written sources and understand how this affects the craft, how it can be part of a tradition. The textile material culture and community of practice can contribute with answers otherwise unseen, answers that give clues about the context. Questions about how craftspeople have performed their work will offer a deeper (initiated) understanding, for instance, of the use of technical methods and their effects. Thus, skills, tradition, and the learning of craft will be visualised in a qualitative result and the importance of the craftspeople's work and working conditions can be seen. The methodological analysis of various sources of material and the ambition to conduct a profound reasoning establishes this as a qualitative scientific analysis.

The result of the analysis in this chapter confirms knowledge of craft to be useful as a tool in

a qualitative scientific analysis. For researchers and students of Textile Studies at Uppsala University, this is a core issue. As an interdisciplinary subject the use of a craft perspective (and knowledge of craft) can be both an opportunity and a problem—all depending on the acceptance of the perspective by other subjects. From my point of view, the labelling or the categorisation of knowledge is not important. What *is* important is that all kinds of knowledge are respected as being equally important and valuable in an analysis, provided there is a profundity of the knowledge in question. Consequently, I state the importance of verbalising these analyses, enabling acceptance and new research collaborations, which will generate new knowledge within the field of textiles about both the present and the past.

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TEXTILE SOURCES

Samples at Alice Lund Textilier AB, Borlänge, Sweden.

Samples at Dovecot Studios, Edinburgh, Great Britain.

Samples at Friends of Handicraft, Stockholm, Sweden.

Samples from Friends of Handicrafts collection (samples made from 1874 until the 1950s), Nordic Museum, Julita, Sweden.

Textiles under production and exhibition at La Manufacture des Gobelins, Paris, France, and Dovecot Studios, Edinburgh, Great Britain.

VERBAL SOURCES

Alice Lund Textilier AB, Frida Lindberg, June 2018.

Dovecot Studios, Naomi Robertson 2014; Naomi Robertson and Rudi Richardson 2019.

Friends of Handicraft 2012–2014, interviews with active and former weavers and/or embroiders.

Les Gobelins 2014 (meeting and guided tour with representatives from the studio, discussion with weavers).

ENDNOTE

1. This technique is named *inslagsrips* in Swedish. According to Geijer and Hoffman (1979), the English name is *weft ribbed fabric*. At the same time, Albers (2017) names the technique *weft or long ribs*. I have chosen to use Albers's term: *weft ribs*. Collingwood (1978) uses the term *weftface* (in contrast to the term *warpface*) and thereby shows which system of threads is most visible.