AN EXPLORATION OF CRAFTS IN THE ANKARA CASTLE AREA BASED ON SUSTAINABLE DESIGN AND LOCALIZATION

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ABSTRACT

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In the age of globalized industrial production, traditional crafts have the potential to contribute to sustainable development through offering local approaches with potential social, environmental and economic benefits. Nevertheless, all over the world, crafts are in decline due to the reasons mainly led by industrialization. This study explores the existing traditional crafts at the site of the Ankara Castle, as one of the few craft production areas in Ankara, in relation to sustainability considerations, with an emphasis on localization and personalization. It then incorporates this knowledge into the development of design directions for the empowerment of both craft skills and craftspeople. In this sense, the research comprises of a number of phases. Firstly, via an in-depth literature review, the existing approaches in relation to empowering craft skills and knowledge through design are assessed and categorized. Secondly, in order to gain a holistic understanding on the conditions in the context of the study site, current craft skills and knowledge are examined through a field research including semi-structured interviews and field observations by the use of video and audio recordings. Lastly, the findings and insights from the field research contribute to the

development of design directions for integrating local skills and knowledge into the design processes in an attempt to empower crafts for sustainability.

Keywords: design process, craft, sustainability, localization, personalization, Ankara Castle.

ÖZ

ANKARA KALESİ BÖLGESİ'NDEKİ ZANAATLERİN SÜRDÜRÜLEBİLİR TASARIM VE YERELLEŞMEYE DAYALI OLARAK İNCELENMESİ

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Küreselleşen endüstriyel üretim çağında, geleneksel zanaatlar, sosyal, çevresel ve ekonomik faydalar sağlama olanağına sahip yerel yaklaşımlar sunarak, sürdürülebilir gelişmeye katkı sağlama potansiyelini taşırlar. Ancak, tüm dünyada geleneksel zanaatlar, temelde endüstrileşmeden kaynaklanan sebeplerle giderek kaybolmaktadır. Bu çalışma, Ankara'daki sayılı zanaat üretim bölgelerinden biri olan Ankara Kalesi Bölgesi'ndeki zanaatları, yerelleşme ve kişiselleştirme başta olmak üzere sürdürülebilirlik ölçütleri çerçevesinde incelemektedir. Bu bağlamda, çalışma belirli aşamalarda ilerler. İlk olarak, detaylı bir literatür taramasına dayalı olarak, zanaat bilgi ve becerilerinin tasarım yoluyla desteklenmesine yönelik var olan yaklaşımlar değerlendirilir ve sınıflandırılır. Sonra, çalışma alanındaki mevcut koşulları kapsamlı olarak anlamak üzere, halen sürdürülmekte olan zanaat bilgi ve becerileri, yarı yapılandırılmış görüşme ve görüntü ve ses kaydı yoluyla yapılan saha gözlemleri yöntemleri kullanılarak araştırılır. Son olarak, saha çalışması sonucu elde edilen bulgu

ve sonuçlar, zanaatın sürdürülebilirlik için desteklenmesi amacıyla yerel bilgi ve becerilerin tasarım süreçlerine dâhil edilmesine yönelik, tasarım yönlerinin geliştirilmesine katkı sağlar.

Anahtar Kelimeler: tasarım, zanaat, sürdürülebilirlik, yerelleşme, kişiselleştirme, Ankara Kalesi.

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To My Father

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CHAPTER 1

INTRODUCTION

Despite their ability to create wealth and material benefits, it is no doubt that industrial manufacturing and globalized product distribution have detrimental effects both on environment and society including unemployment, urban migration, exploitation of natural resources, waste and pollution (Schumacher, 1973). Therefore, a restructuring of current manufacturing systems and the development of new ways forward is necessary. These ways should allow the potential environmental, social and economic gains that can be derived from local approaches and context specific solutions while acknowledging the advantages of technological progress (Meroni, 2009). As Walker (2010) states, a design approach integrating increased localization is likely to contribute significantly to sustainable development through creating employment opportunities at the local levels, meeting local needs and preferences, making use of resources effectively, enabling product-service systems that allow repair, reuse, maintenance and upgrading of products, while also reducing the need for packaging and shipping.

The idea of 'the local' is one of the key concepts highlighting the craft issue in the context of sustainability. In today's globalized mass production and product distribution systems, traditional crafts have the potential to significantly contribute to sustainability as a resource for enduring local approaches and context specific solutions that are often socially, environmentally and economically pleasing (Chudasri, Walker, Evans, 2012). However, a great variety of traditional crafts have been disappearing around the world due to various reasons that are primarily led by

industrialization. Once valuable crafts which local people make their living on are under the threat of extinction since their products cannot compete with mass-produced cheap goods. In this sense, as a way to address the notion of sustainable production and consumption, the revival of traditional crafts holds great importance as to offering environmentally responsible solutions that can derive from local contexts while also generating skilled local employment opportunities and providing locally relevant products which better respond to local needs.

In this research, the existing traditional crafts at the site of Ankara Castle in Ankara, Turkey, including calligraphic wood engraving, macramé making, basket weaving and coppersmithing, have been explored in order to develop design directions that have the potential to contribute to the empowerment of both craft skills and craftspeople for sustainability.

1.1 Aim and Objectives of the Study

The aim of this research is to gain a better understanding on the revitalization and development of local skills and traditional crafts in relation to sustainability with a particular focus on localization and personalization, together with the development of design directions for various means of integrating local skills and knowledge into the design process to empower both craft skills and craftspeople.

The research involves a number of phases which develops incrementally. First, through an in-depth literature review, the existing approaches in relation to empowering craft skills and knowledge through design have been assessed and categorized into five topics. Then, the Ankara Castle area for focusing on specific crafts (e.g. macramé making and coppersmithing) have been selected and explored considering their accessibility and role in that area. Afterwards, in order to gain a holistic understanding of the situation in the context of the study site, current craft skills and knowledge at the site of the Ankara Castle in terms of craftspeople's *practices*, *products*, *working conditions*, *needs* and *expectations* have been explored through a comprehensive research including semi-structured interviews and field observations. Finally, after the completion of the exploratory phase, building on this

knowledge, design directions through translating the findings from the field research have been developed.

1.2 Research Questions

The main research question is;

What are the features of traditional crafts in relation to sustainability considerations with a particular focus on localization and personalization?

The sub-questions are;

- How can the existing approaches for crafts and design can be categorized for empowering local craft skills and knowledge?
- What are the sustainability considerations for empowering traditional crafts in terms of local skills and knowledge?
- What are the implications of sustainability considerations for selected crafts in terms of practices, products, working conditions, needs, and expectations?
- What are the commonalities and differences among the selected craft practices based on localization and personalization?
- What are the potential areas for design interventions to enable/empower craft skills and knowledge for sustainability?

1.3 Structure of the Thesis

This thesis consists of five chapters:

Chapter 1 presents the problem statement with a brief introduction, aim and objectives of the research and the research questions.

Chapter 2 provides an in-depth overview of the literature that is relevant to the aim and scope of the research in order to gain a better understanding of the background of the research problem. Building on the historical background on traditional crafts that is presented in the introduction part, the relation of crafts to sustainability, technology

and design, along with its situation in the context of Turkey is explained. This chapter also includes a categorization of the existing approaches in the literature in relation to empowering craft skills based on a comprehensive review.

Chapter 3 explains the initial exploration phase that is conducted for identifying existing local crafts in Ulus area in Ankara to focus on the field research. This chapter also provides insights into how and why the cases for the primary research have been selected. Additionally, it offers a brief overview to the study site and continues with explaining the methodology used in the main research.

Chapter 4 focuses on the field research. It presents five case studies in detail that are conducted to explore the craft skills and knowledge in each case in terms of craftspeople's practices, products, working conditions, needs and expectations. Through an extensive research via semi-structured interviews and field observations, it provides insights into the current situation regarding traditional crafts in the context of the study site while identifying opportunities and challenges for potential design directions for the empowerment of craft skills and craftspeople.

Chapter 5 presents the findings from and insights into the case studies along with the potential design directions. It also includes the overall conclusions from and insights into the research studies through revisiting the research questions, and discusses the implications of this research for product design, and its limitations along with the recommendations for further research.

CHAPTER 2

LITERATURE REVIEW

Terms and Definitions in the Research Context

Craft(s)

Craft [*Zanaat*] identifies the practices that involve hand skill and manual dexterity based on making and learning through experience to meet material needs of people (TDK, 1988). It can also be described as local small-scale production that is practiced based on hand skill, manual labor and knowledge acquired through making. In the plural, 'crafts' refer to objects or artefacts. As a verb, 'to craft' means making or processing something by hand (Macmillan Dictionary, 2009; Oxford Dictionaries, 2012). The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines 'handicrafts' as follows:

> "These can be defined as products, which are produced either completely by hand or with the help of tools. Mechanical tools may be used as long as the direct manual contribution of the artisan remains the most substantial component of the finished product. Handicrafts are made from raw materials and can be produced in unlimited numbers. Such products can be utilitarian, aesthetic, artistic, creative, culturally attached, decorative, functional, traditional, religiously and socially symbolic and significant." (UNESCO, 2001)

2.1 Introduction

Crafts was the main mode of production in pre-industrialized cultures for centuries. However, particularly in the nineteenth century, the Industrial Revolution and its predominant features such as automation and standardization changed the existing production systems resulting in a major shift from small-scale local craft production

to the large scale industrialized manufacturing with an emphasis on globalized distribution of goods (Mohanty, 1990).

This rapid shift within the manufacturing systems have brought about significant socio-economic changes. The emerging employment opportunities in the new factories stimulated a huge demographic shift from rural to urban areas. Besides, the increased volume of production resulted in the abundance of mass produced products on the market. This gave rise to consumerism which goes beyond meeting individuals' basic needs for survival (Metcalf, 2008, p.6). Furthermore, the automation in mass-production processes necessitated the division of labor by splitting-up the craft-based production into small phases to increase productivity (Dormer, 1997). Consequently, the process of design, production and marketing developed into separate specialized disciplines (Dormer, 1997).

This, in turn, has led to the replacement and/or disappearance of a great variety of crafts around the world, as these have been seen as an outdated mode of production being labor intensive, expensive and time-consuming (Metcalf, 2008, p.6). However, during the twentieth century, the detrimental effects of the increasing industrialized production both on environment and society gave rise to concerns regarding the issues such as unemployment, urban migration, the exploitation of natural resources, consumerism and the management of waste (Schumacher, 1973).

Due to its negative effects both on environment and society, industrialization and its related concepts such as mechanization, standardization and division of labor are heavily criticized by the proponents of the Arts and Crafts Movement. The ideology behind this movement was against to the alienation of labor, as it isolates the creator from the production and creation processes, and consequently advocated the revival of craft as an alternative means of production (Greenhalgh, 1997, p.35). William Morris, one of the pioneers of the Arts and Crafts Movement, suggested the revitalization of craft production and its products primarily because of their social usefulness, essential humanity and nature (Metcalf, 2008, p.25).

Greenhalgh (1997, pp.31-35) describes three elements of craft namely; "decorative arts", "the vernacular" and "politics of the work". He states that, these elements, which

are separate in nature, were brought together in the Arts and Crafts movement forming the concept of ‘craft’, which was began to be widely used throughout the twentieth century (Greenhalgh, 1997, p.25). In the philosophy of the Arts and Crafts Movement, creative practice was inextricably linked to the physical process of making. Craft referred to a political type of work that allowed the expression of creativity through the making process. Its aesthetics was the result of this practice and its outcome deliberately reflected the cultural context in which it is produced. The “politics of work” which is inherent in the making processes of craft led to an enhanced quality of life through engaging in creative work. The craft products provided “decorative arts”, an applied quality in aesthetic experience. The term ‘the vernacular’ was the model for the Arts and Crafts Movement. According to Greenhalgh, craft includes “the vernacular” which he describes as the collective cultural expression of rural communities; “the things collectively made, spoken and performed” (Greenhalgh, 1997, p.31). The desire to return to the vernacular world in a way to compromise the loss of cultural heritage with the increased industrialization gave prominence to the rural and handmade aspects of craft (Greenhalgh, 1997, p.31).

Having its roots from the craft philosophy in the Arts and Crafts Movement, the Bauhaus Institution suggested an approach to design based on the idea that “exploring new design through craftsmanship” (Dormer, 1997, p.4). The founders of the Bauhaus were against to the splitting up of arts from craft and the degradation of manual labor as compared to art and design.

However, in the twentieth century, the isolation of craft from art and design has led to the separation of ‘having ideas’ from ‘making objects’ in industrial manufacturing processes (Dormer, 1997, p.18). Consequently, design, which was regarded as a notion closely linked to industry, developed into a specialized discipline. Unlike craftspeople, designers now needed to make aesthetic decisions prior to a rationally planned production process. In this sense, designers mainly distinguished from artists and craftspeople and became profoundly associated with mass production (Greenhalgh, 1997).

There are certain distinctive characteristics of craft that set it apart from industrialized production. As Dormer (1997, p.147) states, craft is essentially based on "tacit knowledge." It refers to the "practical know-how" that people can learn only through practice and reflect in the craft making processes (Dormer, 1997, p.147). The tacit knowledge in crafts is traditionally transmitted orally or through a master-apprentice relationship (Craft Revival Trust, 2005). However, if this practical know-how of craftspeople is failed to be passed on to the new generations, it disappears in a way that it might be hard to rediscover it (Dormer, 1997).

On the other hand, Metcalf (2007) identifies four features that define and limit the boundaries of craft. First and foremost, craft products are made, to a large extent, by hand; excluding the use of fully automated machinery in the making processes. Secondly, craft objects are produced using pre-industrial materials and production methods. Thirdly, craft is defined by function which addresses to a certain physical need such as furniture and clothing. Lastly, it is defined by tradition. Tradition is one of the primary ingredients in craft. Similar to Greenhalgh's idea of "the vernacular", Metcalf states that craft reflects the multicultural history of societies in the form of objects (Metcalf, 2008, p.7).

> "Craft looks to the past for techniques, visual cues, meanings, and ideas. Even today, craft depends on the continuous revival of pre-industrial technologies. ...Craftspeople also look to historical production for reference and inspiration. ...Craft looks at society as a continuum, not a new invention. A firm connection to the past is both possible and desirable. …To craft, tradition is not necessarily backward, corrupt, or a restraining force in civilization; it is not an anchor, but a rudder." (Metcalf, 2008, pp.19-20)

In an analogous approach to Metcalf, Shiner (2007) mentions four factors that bring together certain characteristics of craft namely; hand, material, mastery and use. Hand refers to the craft's condition of being handmade or "substantially handmade" by utilizing the type of tools ranging between simple hand tools and fully automated technological machines. Secondly, the medium or materials identifies craft. However, what is highlighted here is not the type of material used in craft processes, but the specialization of craft practices on specific materials. In contrast to craftspeople,

designers and artists are free to use any material as they are mainly focused on the creation of an idea rather than the physical process of making. Thirdly, mastery refers to the application of skill in craft making through an instinctive combination of hand and mind. Mastery in hand making is indispensable to craftspeople while it is optional for artists, and it is not even a necessity for designers. Lastly, use is the utilitarian aspect of craft which addresses to needs like eating, sitting, and clothing or adorning. Use is a common feature of craft and design products which are both intended for a specific function.

All of the above-mentioned characteristics of craft relates inevitably it to the idea of sustainability. With the arising concerns during the twentieth century, the concept of sustainability has become a generally accepted notion as to adopting the principles such as environmental responsibility, social justice and economic equity (Walker, 2006, p.17; Bhamra, 2007). Concordantly, crafts are identified as a key strategy for sustainable development that can provide opportunities for employment and social wellbeing, as well as contributing to economic growth and environmental stewardship (UNCTAD, 2008).

The notion of localization is also one of the core concepts underpinning the craft design and production within the context of sustainability. Traditional crafts are deeply rooted in places and cultures, thus they can provide a rich source of 'local' approaches. As Walker (2010) states, a design approach integrating increased localization is likely to contribute to sustainability through creating employment opportunities at the local levels, meeting local needs and preferences, making use of resources effectively, enabling product-service systems that allow repair, reuse, maintenance and upgrading of products, and also reducing the need for packaging and shipping.

Through rethinking of local materials, local skills, products and processes, incorporating local needs and preferences via personalization in traditional crafts, seeking design interventions to revitalize them while exploring the potentials of the new and flexible technologies in craft processes, would be of great importance to address the notion of sustainable production and consumption. Since, small-scale local

production is still prevalent in Turkey, the lack of complete industrialization can become advantageous for the advancement of crafts through the integration of local skills, materials, processes and products (Atalay, 2015).

Based on a comprehensive literature review, the mind-map (Figure 2.1) below highlights the key issues in the literature regarding crafts. It also helped to the development of a categorization regarding the existing approaches in the literature in relation to empowering craft skills which is to be explained in the Section 2.5.

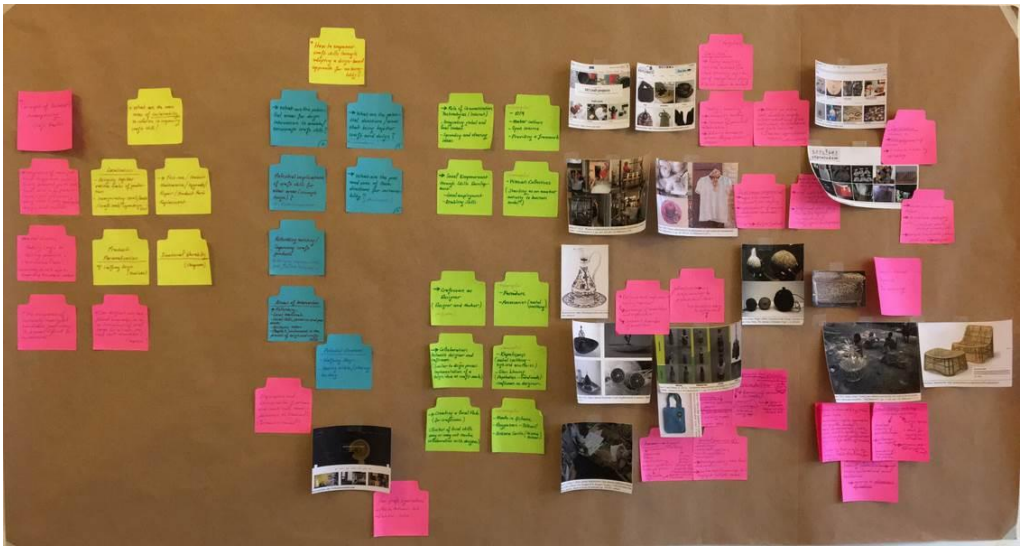

Figure 2.1: Mind map developed based on the literature review.

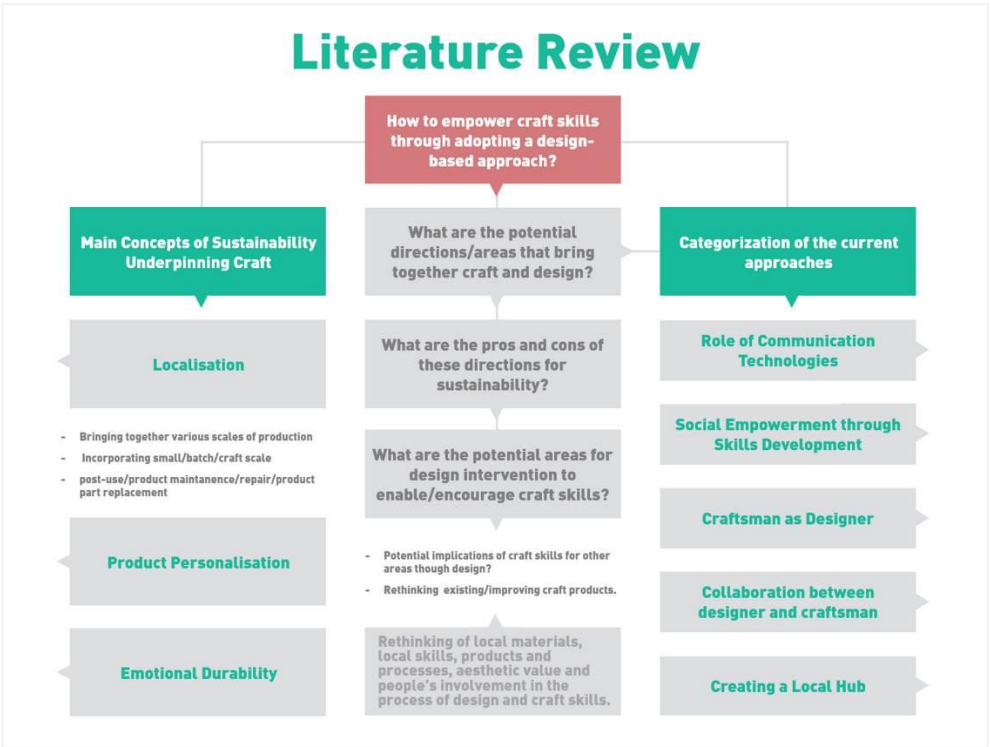

Figure 2.2: A revised version of the first mind map summarizing the key points of the literature review.

2.2 Craft and Sustainability

2.2.1 Localization

During the twentieth century, the detrimental effects of the increasing industrialization both on environment and society, including unemployment, urban migration, the exploitation of natural resources, and consumerism leading to rapid disposal via landfill, have led to major social, economic and environmental concerns (Schumacher, 1973). These concerns gave rise to the concept of sustainability as a way of living by adopting the principles such as environmental responsibility, social justice and economic equity (Walker, 2006, p.17; Bhamra, 2007). In this sense, sustainable development is described as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987).

The idea of 'the local' is one of the key concepts highlighting the craft design and production in the context of sustainability. The term 'localization' refers to the design solutions tailored to diverse user needs and preferences at the local batch production scale and post-use services at the local and regional levels including maintenance, repair, reuse of materials and refurbishment (Dogan & Walker, 2008). The revival of 'the local' via the use of local materials, local skills, local production processes and tools has important implications for sustainable product design. As Walker (2010) states, integrating increased localization into design would contribute to sustainability in many ways through offering diverse solutions for different local needs and preferences, creating employment opportunities at the local levels, making use of resources effectively, enabling product-service systems that would allow repair, reuse, maintenance and upgrading of products, and also reduce the need for packaging and shipping. In the era of technological progress and globalized mass production and distribution, traditional crafts provide us with a model for sustainability as to offering enduring 'local' approaches and context specific solutions that are often socially, environmentally and economically beneficial (Chudasri, Walker & Evans, 2012). As Schumacher states, "production

from local resources for local needs is the most rational way of economic life." (Schumacher, 1973, p.36). Currently, the systemic problems associated with globalized production, mainly stem from a number of reasons including the separation of design from production and post-use processes, the distribution of expertise among various professions, thus the lack of a holistic understanding of the systems of production for those who are involved in, and the rapid adaptation of new technologies without considering their social, cultural and environmental implications (Dogan & Walker, 2008).

According to Dormer (1997), technology-based mass production systems has certain characteristics which impart them an organizing power: (i) the 'simplicity' of the processes; (ii) the 'systems' of distributed knowledge where know-how is embedded in the system itself rather than in individuals, and (iii) the 'ubiquity' of the technology used in product development and production. As a consequence of the distributed knowledge in the systems, the possibility of human error is eliminated along with the need for personal know-how. Therefore, the predictability caused by the distinguishing characteristics of a technology-based mass production system results in a dull similarity in its products.

> "Consistency and predictability of outcome are almost guaranteed, but the price is uniformity … At this point, taking simplicity, systems and ubiquity as the cue, it would be easy to argue that what gives 'craft' its distinctiveness from technology is that technology has become so predictable that its aesthetic is predictable, even boring." (Dormer, 1997, p.142).

However, it should be noted that craft products must not necessarily look different than the mass-produced ones. With the advancements in contemporary technology, machines are perfectly capable of mimicking the irregularities regarding textures and forms in craft (Dormer, 1997). What cannot be copied by machines is the personal fulfillment achieved through creative involvement of individuals in the making process, individual expression and empowerment through tacit knowledge (Dormer, 1997).

Ensuring good working conditions through 'self-actualization' is fundamental for both the well-being of the society and sustainable development (Metcalf, 1997, p.78). As Greenhalgh has stated;

> "The way that people work, the conditions they work under and the way they make things, is fundamental to the well-being of society. It is not possible to have a proper society if its inhabitants are not humanely or creatively employed." (Greenhalgh, 1997, p.33).

William Morris suggests the revitalization of craft production essentially because of its social usefulness and humanity (Metcalf, 2008, p.25). His ideal of a better society was based on the need to engage in creative work, because creative work had the potential to contribute to the environment, provide social justice through the equal distribution of wealth, and create psychologically fulfilled people. To Morris, "craft – creative work – was about the empowering of individual workers, about the political control of the work situation. The objects produced were a by-product of this larger ideal" (Greenhalgh, 1997, p.33-34). Moreover, Morris advocated the traditional crafts not only for the good quality work and a room for personal creativity, but also for the skilled employment that they provide (Gorman, 2003). As Marx (2009) states, industrialization, which caused crafts to lose their power of being the decisive element of the production, has mostly degraded the value of the skills and knowledge that the craftsperson gained through experience, within the society.

The concept of sustainability covers all the issues related to working conditions of people and well-being of society, equity in distributing resources, and impacts of manufacturing both on environment and society. Considering these aspects, it can be assumed that the notion of sustainability is closely linked to the discipline of design as "designers shape the development of products and services which directly impact upon society and the environment." (Bhamra, Lilley & Tang, 2014). Taking into account the adverse effects of technological development and globalized mass-production and distribution both on environment and society, design is a powerful tool to develop new ways forward for change towards a more sustainable future.

In the "Integrated Scales of Design and Production for Sustainability" (ISDPS) concept, Dogan and Walker (2008) suggest combining different forms of production, such as the integration of certain mass-produced components to local batch-production of products to introduce greater localization in the design,

manufacture and post-use services. The main aim of this integrated approach is to achieve potential social, economic and environmental gains through restoration of the local while recognizing the advantages of globalized mass-production. The ISDPS concept attempts to better address the notion of sustainable production and consumption via increased localization in product design and development in the following ways; creating employment and local business opportunities through empowering skills at the batch production level, offering 'locally appropriate' design solutions for diverse user needs, decreasing environmental impacts by using resources effectively, enabling post-use services which allow repair, reuse, product maintenance and upgrading of products at the local and regional levels, thus, create further employment, lowering the costs by reducing the need for shipping and packaging and developing batch production and service economy related high-skilled employment. (Dogan & Walker, 2008).

2.2.2 Personalization

Product personalization can be defined as making changes in the appearance and/or functionality of a product in a way imparting to it personal relevance (Blom, 2000). When personalizing a product, users make creative choices to alter the utility or appearance of it, which requires the user's investment of time and (physical and/or mental) effort into the product. By doing so, users differentiate themselves through personal expression via products (Mugge, Schoormans & Schiffersteinb, 2009). Cardozo (1965) claims that the effort that users spend on a product might increase the perceived value of it, making it more important for the users.

The ideology behind the industrial manufacturing technologies is to create a cost advantage by producing large quantities of standardized products, which necessitates the simplification of both processes and products and the elimination of human error (Dormer, 1997). Consequently, the resulting products lack the unique marks of personal touch. However, hand production, which is indispensable to crafts, provides subtle variations in craft products indicating the touch of the maker. These slight flaws in handmade objects offer an alternative to the predictability and similarity in mass-produced products (Metcalf, 2008).

According to Shiner (2007, p.44), objects produced by traditional crafts are unique in the way that "they combine the visual, tactile and useful with 'the marks of the hand'." Therefore, craft products hold immense potential to provide personalization. Metcalf (2008) states that a craft object which is made particular for a person or event like a wedding or engagement functions as the signifier of meaning for the user unlike a mass-produced one which is generically designed and produced in large quantities for global distribution.

As an approach to product personalization, Fuad-Luke (2009, p.95) proposes the concept of "halfway product". In this concept, the product is intentionally left unfinished by the designer/maker/producer to allow the user to complete the rest. Through the active involvement in the making process, the user finds the chance to express his/her creativity, better personalize his/her product, embedding a "personal narrative" and differentiate the product from the others, all of which create an experience to establish an emotional bond with the product (Fuad-Luke, 2009, p.98). "Halfway products" differ from the concepts such as car customization where a standard production car is offered for users to remove some elements and add their preferred 'customized' element. They also differ from 'mass-customization' or 'mass-personalization' where a range of colors or models of a product, or a standard model with variable elements is offered to the user, such as the mobile phones with changeable casings (Fuad-Luke, 2009, p.98).

As an example to the halfway products, Natalie Schaap, with her design "An Affair with a Chair", offers users an unfinished chair frame, which the user must complete to obtain the final look and functionality of the chair (Figure 2.3). In this manner, the user interacts with the chair by using her/his creativity to finish it,

through which process establishing a meaningful relationship between the user and the product (Fuad-Luke, 2009).

Figure 2.3: *An Affair with a Chair* by Natalie Schaap (Adapted from Fuad-Luke, 2009).

Figure 2.4: *do Hit chair* for Droog by Marijn van der Poll (Retrieved from http://www.droog.com/webshop/product/do-hit-chair-non-hitnew on May 8, 2016).

Another example is Marijn van der Poll's '*do Hit*' metal cube that the user transforms into an armchair by hitting with a sledgehammer (Figure 2.4). Designed under the banner '*do Create*' by the Droog Design Collective, it is one of the products created to explore the ways of embedding meaning in objects through actively integrating the user into the making process (Droog Design, n.d.).

Both these examples suggest a stimulating approach for product personalization in the sense that they provide users with products to reflect on, and emphasizing the narrative and the inviting idea behind the design object rather than the final product.

When designing sustainable products, all the factors that could possibly have an impact on the environment- such as resource use, end of life impact - and society - such as usability, responsible use - throughout their life-span should be considered (Bhamra & Lofthouse, 2007). In this regard, one way to create sustainable products could be extending their lifetime (Chapman, 2005). However, it might not always yield totally positive outcomes. As Walker (2010) suggests, "designing products to last fails to acknowledge the relatively rapid changes that occur in aesthetics and taste" (Walker, 2010, p.815).

Chapman (2005) states that desires and tastes of consumers evolve constantly in the developing world. Nevertheless, products cannot keep up with their users in terms of change. This inconsistent relationship between user and product mostly results in the disposal, contributing to landfills made up of fully functional products, as "their only crime being a failure to sustain empathy with their users" (Chapman, 2005, p.20).

The reason for establishing this 'empathy' between the user and the product is that objects serve more than just their physical functions. They act as signifiers of status, and also provide users means of engagement with the world both rationally and emotionally (Chapman, 2005). Chapman further explains this engagement;

> "Everyday objects that engage the senses in this way should not be taken for granted; their characteristics are not simply utilitarian or aesthetic. They invade our lives and literally depend upon our care and attention in order to survive. It

> is this co-dependency that gives rise to deep sensations of cohesion, attachment and, potentially, love." (Chapman, 2005, p.72)

However, when products lack meaningful characteristics, users may not be able to attach to them on an emotional level. Sennett (2013) asserts that the lack of quality in products leads to a consumption behavior in users that buying newer products is imparted more importance than the durability of them, which results in early disposal. For this reason, with the concept of emotionally durable design, Chapman (2005) proposes that products should be designed in a way to serve deeper emotional experiences than the possession of simply newer things in order to establish long-lasting relationships with the users as well as to prevent unnecessary disposal.

In the current globalized mass-production system which yields the same looking products in large quantities, crafts hold the potential for emotional durability through generating meaningful products and experiences. As Walker (2006) states, crafts can create a bond between the products and both their makers and users, through the activity of hand making, materials, and use. Craft practice provides for the maker; a creative involvement in the making practice and for the user; the satisfaction of using a meaningful product carrying the marks of the maker (Shiner, 2008). Besides, an object that is a deeply meaningful personal possession can extend product lifetime which, in turn, might result in reduced consumption and disposal (Walker, 2006, pp.48-50).

2.3 The Role of Design and Technology for Current Understanding of Craft

According to Pye (1968), most craftspeople use tools of some sort to produce things, therefore, it is not the main point whether something is produced by hand or not. It is the type of workmanship that differentiates craft production from industrial production. For this reason, he deliberately choses the term '*workmanship'* instead of '*craft'*. He argues that there are two types of workmanship; '*the workmanship of certainty*' and '*the workmanship of risk*'.

Figure 2.5: (*left*) Ikea Janinge Chair; (*right*) hand-carved ebony chair from V&A Museum (Retrieved from http://www.ikea.com/us/en/catalog/products/00246078/ ; https://collections.vam.ac.uk/item/O114460/chair-chair-unknown/ on January 12, 2017).

The workmanship of certainty refers to mass-production. For the production of the Ikea chair seen on the left (Figure 2.5), every step of the manufacturing process is planned, and the product is designed, tested and prototyped repeatedly, so that the end result and the quality of each product can be assured with certainty. It is the production of a system rather than individuals. The chairs seen on the right (Figure 2.5), on the other hand, are the products of a skilled person or several skilled persons. The making of every new product is a risk because any mistake during the process could ruin the whole product. Therefore, the outcome is unpredictable. Pye (1968) differentiates the products based on the extent to which they employ the workmanship of risk in their production process.

Dormer (1997) views the distinction between craft and technology in another way. He states that there are two types of knowledge namely '*personal know-how'* and '*distributed knowledge'*. Personal know-how is the same as tacit knowledge. It is acquired through experience by individuals. The craftsperson who made the ebony chairs (Figure 2.5) applies his personal know-how via interacting with materials and tools during the making process.

Whereas, distributed knowledge is the type of knowledge that is distributed over many systems. The making of industrialized products embodies knowledge that is spread over many areas of expertise such as software engineering, electronics, user-interaction design and materials engineering which makes them nearly impossible for one person to produce from scratch.

However, Dormer (1997) argues that technological tools with embedded knowledge do not completely eliminate the need for personal know-how. As it is this tacit knowledge which empowers people to be in control of technology. In this sense, with their expertise over workmanship of risk, craftspeople possess the ability to apply their tacit knowledge over technological tools and systems to create new opportunities for craft to adapt to changing socio-economic conditions.

Traditionally regarded as the exact opposite of technology (Von Busch, 2010), the relation of craft to digital culture is changing through the new opportunities and approaches provided by the means of distributed knowledge (Press, 2008). Press (2008) points out the emergence of a new type of '*craft practice'* which is:

- No more isolated in itself, rather, '*engaged'* with a broad range of issues in order to explore the potential solutions that can derive from craft,
- '*investigative'* in approach incorporating systematic inquiry into practical knowledge,
- '*transparent'* in its methods to allow the transfer of knowledge in a contemporary context,
- '*cross-disciplinary*' in a manner that embraces the collaboration with other fields of expertise to extend its knowledge-base,

- '*innovative'* relinquishing craft's ability to develop innovative solutions for problem areas in a wide scope.

Currently going through a transformation with the new and creative opportunities that are opened up by technology, crafts as a knowledge base holds great potentials to add value to the world (Press, 2008).

As Greenhalgh states;

> "…if we are to advance on from our present sorry state, we need to clarify the role of all our cultural forms, including the crafts… helping us to integrate [machines] into our way of making and thinking." (Greenhalgh, 1997, p.114)

The craft's repositioning itself within the contemporary culture- that Greenhalgh calls for - can be seen in the exemplary cases which integrate technology, particularly Computer Aided Design (CAD) and Computer Aided Manufacture (CAM), with craft knowledge to explore the potentials of these advances.

One example combining digital technology with local crafts is a research project conducted in Samoa Island in Pacific (Taito-Matamua, Frasier, Ok, 2015). The project aims to address the waste issue through repurposing and recycling plastic waste by using 3D printing technology with a culturally relevant approach. Samoa's economy is largely based on tourism. However, when arriving at the island, tourists bring along their plastic water bottles which end up in plastic waste. Considering the number of tourists visiting the island each year, this waste stream threatens Samoa's environment. Seeking creative and innovative solutions for this problem, design researchers process and experiment with plastic waste to turn it into printable filament for using in 3D printing, which is a low cost and open-source production method. Artefacts designed by local craftspeople which reflect Samoa's cultural heritage are 3D printed using this filament to be sold or gifted to tourists. As tourists leave the island, they actually take away their plastic waste, but in the form of a reminder of their visit. In doing so, while the waste problem is

addressed in an economically and culturally relevant context, local craftspeople are also empowered through their craft knowledge.

Figure 2.6: *Asi* hand grip and stands, 3D printed with different finishes and colors (Adapted from Taito-Matamua, Frasier, Ok, 2015).

'Asi' hand grip (Figure 2.6), one of the artefacts produced in the project, is a traditional household tool in Samoa that is used to scrape the skin of a local plant root. Originally made from coconut shells by local craftspeople, it is 3D printed using the filament from plastic waste in different surface finishes in a way to mimic the irregularities found in hand making and sold to tourists as a culturally meaningful object (Taito-Matamua, Frasier, Ok, 2015).

Although the effects of 3D printing technology on environmental sustainability is open to discussion, as plastic being the main material, it is still an innovative approach raising awareness on waste issue through the unexpected conjunction of craft with digital technology.

Another example, is a graduation project namely "One over One under" [*Bir Alttan Bir Üstten*] conducted in the context of industrial design studio course in Istanbul Bilgi University (Figure 2.7). In the project, an industrial design student works in collaboration with basketry craftspeople from Sapanca, western town of Turkey, seeking to explore the potential ways of design intervention into craft processes through the use of flexible technologies. In Sapanca, basket weaving craft and its

products still hold their relevance in social and economic context. To acquire the tacit knowledge in the craft, the design student works together with four craftspeople and observes their making processes. Based on her observations on basket weaving process, the student realizes that the hardest part of a basket is the making of its base. Therefore, she develops design solutions regarding this part. After experimenting with a variety of materials and shapes, she designs 3D printed bases from PLA (a thermoplastic material) in various forms and sizes, with the aim of both to ease the making process and to provide variety in form. These parts are placed at the bottom of the basket and the rest is weaved using osier [*sorgun*] branches, a locally abundant material, by the craftsperson (Altay & Oz, 2016).

Figure 2.7: Some of the baskets developed in the project ‘one under one over’ (Adapted from Altay & Oz, 2016).

Yet again the problem with integrating a polymer-based material into products, which are originally made from locally available and environmentally friendly materials, exists also in this project. Nevertheless, in terms of exploring the potentials offered by flexible technologies in a local context with a design-based approach, it offers an inspiring perspective. Besides, with the developments in 3D

printing technology, it might be possible to experiment the possibilities with more sustainable materials than plastics in further research projects.

As seen on the examples, designers and makers explore the potentials of craft as a source of knowledge and skills while repositioning it within the contemporary culture using numerous possibilities offered by the newly emerging manufacturing technologies.

2.4 Crafts in Turkey

Turkey has a rich and long-standing crafts tradition inherited from the diverse range of cultures that has lived in Anatolia since ancient times. However, current research on traditional crafts in Turkey shows that a great number of them are disappearing because of the reasons mainly led by industrialization (Şatır, 1983; Sürür, 1984). After the establishment of the Turkish republic in 1923, the emphasis has been put on the modernization of the country as a way to catch up with the contemporary world (Köksal, 2009). In conjunction with this new development model, as Ödekan (2008) states, in the first half of the twentieth century, craft practices were encouraged in a way to create a national identity based on the rich cultural heritage of Turkey.

However, during Turkey's transition process from local craft-based production to globalized industrial production, cost effective mass-produced goods became more prevalent in the market which caused craft products to lose their economic competitiveness. The transformation towards industrialization followed by a number of socio-economic changes which rendered crafts to be seen as an outdated mode of production and, relatedly, degraded the status of traditional crafts in the modern Turkish society (Kaya & Yağız, 2011). As traditional crafts lost their appeal in the contemporary context, the transfer of craft knowledge to the new generations is disrupted as well (Şatır, 1983; Sürür, 1984). As a result of these changes, and concurrently, with the growth in tourism after 1960's, craft products began to be mostly produced as touristic items with symbolic meanings (Ödekan, 2008). In this sense, traditional crafts followed a similar historical path in Turkey to that in Europe in the 19th century.

However, industrial design profession in Turkey has emerged in a rather special context. In accordance with the nation's modernization process, industrial design schools have been established long before the actual formation of needs for product design in the industry. The design education was based on European models with the aim of training fully-equipped industrial designers who can respond to the future needs of the developing industry, in a way that did not prioritize craft production and cultural dynamics (Er & Er, H. A., 2006). With the efforts towards the expansion into global

markets, Turkish economy and industry has grown rapidly after 1980's. Nevertheless, after opening up to competitive international markets, the identity of Turkish design has become a major concern since 1990's (Kaya & Er, 2008). Due to the internationally influenced industrial design strategy along with the design education, Turkish design has fallen short in terms of providing culturally specific products that would create competitive advantage in the global markets (Kaya & Er, 2008). In this regard, in the midst of homogenized mass-produced objects, the potential of traditional crafts has been discovered as a distinguishing cultural value for product design (Turan, 2008).

Additionally, being a semi-industrialized country, Turkey's current economic structure accommodates different scales of production. According to the research of Turkish Statistical Institute, SMEs (small scale enterprises with less than 250 workers) constitutes %99.8 of total production enterprises in Turkey, providing a striking %76.7 of employment (TÜİK, 2015). Correspondingly, it can be stated that the Turkish industry, to a large extent, is based on small/batch scale production, creating a vital source of income for many. The dominance of small and medium scale production in Turkey might actually provide a basis for the progression of craft production (Atalay, 2005). By tuning up with the real dynamics of the industry in Turkey, this would generate skilled employment opportunities at the local levels, while providing solutions tailored to the varying local needs. Nevertheless, crafts in Turkey lack support at the governmental level. There are no state policies regarding the empowerment of crafts except for a tax exemption for craftspeople who are engaged in disappearing traditional crafts such as coppersmithing, textile weaving, wood carving, quilting, felt making, stone work, glazed Turkish tiles and pottery making (GİB, n.d.). Craft based projects are mostly funded by either international actors such as European Union or NGOs.

2.5 The Categorization of the Existing Approaches in the Literature in Relation to Empowering Craft Skills

Derived from the literature review within the scope of this research, existing approaches in relation to empowering crafts skills have been categorized under five topics namely; *the role of communication technologies*, *social empowerment through skills development*, *craftsperson as designer*, *collaboration between designer and craftsperson* and *creating a local hub*.

2.5.1 The Role of Communication Technologies

This category focuses on the learning-centered approaches incorporating craft skills with the communication technologies, including maker movement, open design and DIY. The 'maker movement' refers to the subculture in which the 'makers' build their own products and share their designs and making processes via open digital platforms with others with an emphasis on learning through making (Bonvoisin et al., 2017, p.77). On the other hand, in 'open design', individuals use 'open source hardware' such as new and flexible manufacturing tools like 3D printers and laser cutters to create products and publicly share their design information (Bonvoisin et al., 2017, p.77). Both the maker movement and open source hardware are based on a certain type of practice; Do-It-Yourself production (DIY) which is an individualized mode of manufacturing. The term DIY is described as the "method of building, modifying, repairing things without the direct aid of experts" (Bonvoisin et al., 2017, p.78). The rise of the Maker and DIY cultures are followed by a number of digital trends like maker fairs, Fab Labs, local hacker spaces, peer production, open-source, and crowdsourcing which all share common characteristics such as collaboration, knowledge sharing and empowerment through DIY.

Although crafts might be considered as the opposite of technology (Von Busch, 2010), the importance of ever-increasing communication technologies for sharing and materializing craft skills cannot be denied. Today many craft makers consciously use web for communication, documentation and self-promotion purposes in order to keep up with the evolving social media. The examples in this category are characterized primarily by the spread of craft ideas via the easy to use online tools enabling people

to learn from each other through collaboration and sharing resources, which leads to the integration of global and local contexts. Thus, these online craft platforms blur the boundaries between designer, maker and producer.

There are a number of reasons for why socio-economic changes which lead to craft's merging with the digital technologies occurs at the time being. First of all, production systems are transforming along with the technologies on which they are based. Now, this transformation is heavily steered by computation technologies. Although mass-production still prevails today, there is an incline towards more individualized modes of production that can be seen in DIY and the Maker movements (Tannenbaum, Williams, Desjardins, & Tannenbaum, 2013). The integration of craft to industrial methods with the increased participation of individuals in manufacturing, has reshaped the current production which is referred as the "third industrial revolution" (Anderson, 2010). The increased access of individuals to manufacturing tools along with the sharing of knowledge via the Internet in this new industrial age, has given rise to 'the Maker movement'. Either out of necessity or pleasure, makers build their own products and share their designs and making processes on open digital platforms to be replicated or developed by other users through using easy-to-use fabrication tools and open source hardware (Bonvoisin, Galla, Prendeville, 2017). These DIY, hacking and craft based practices have resulted in a cultural change which is characterized by an enhanced engagement of individuals on technological, cultural and material levels (Tannenbaum, Williams, Desjardins, & Tannenbaum, 2013). In this new social trend, crafts are associated with the values such as accessibility, participation, creativity and ecological values in a perspective opposing to consumerism (Santos, 2008).

In industrial manufacturing, the typical methods employed in mass-production, like injection molding, die cutting and vacuum forming which mostly require expensive tools and infrastructures, are based on the idea to create an initial mold with a high fixed cost in order to produce a great number of goods with low marginal costs. In contrast, the cheap small-scale prototyping tools, like CNC, laser cutting and 3D printing, offer a low fixed cost which provides individuals the opportunity of production in small/batch scale (Tannenbaum et al., 2010). This shift in manufacturing is triggered by a number of factors including the boom in the availability of prototyping

tools and materials, the increased accessibility of information technologies, collaboration via Web-based platforms, Internet-based distribution and a driving change in the business systems of the Chinese factories which has evolved to handle custom work (Anderson, 2010). Newly emerging materials and small-scale fabrication technologies like 3D printing, laser-cutting, and CNC milling, once only available to companies, have been opened up to makers from all around the globe. By this way, anybody with an idea is now have the necessary means to design, produce and sell things at home, which constitutes a huge creative potential.

One of the online platforms among a multitude of blogs and websites which exemplifies the maker and DIY culture is *Instructables* website (Figure 2.8). It is a platform where DIY projects on a variety of topics from crafts to 3D printing are shared and documented via Web.

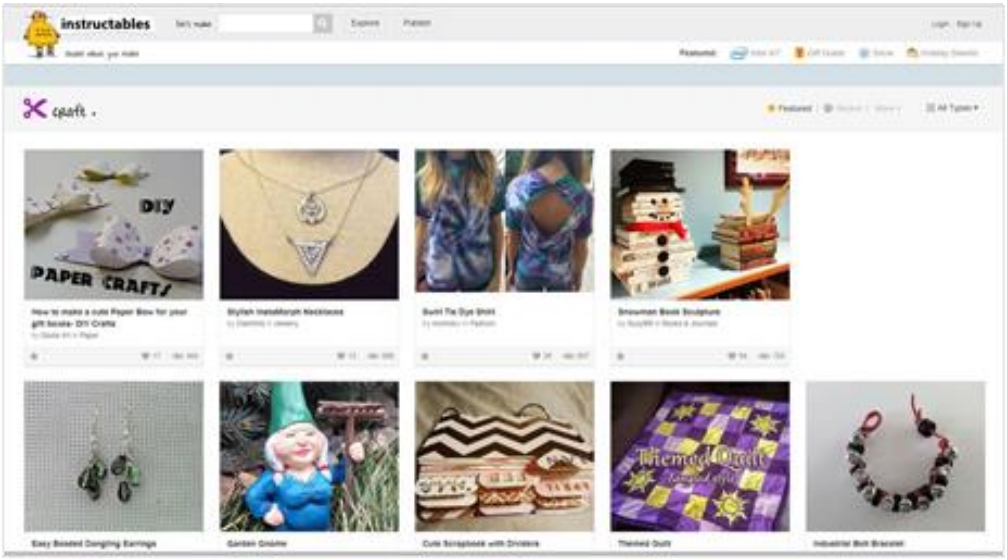

Figure 2.8: A screenshot from *Instructables* website (Retrieved from https://www.instructables.com/ April 28, 2016).

Users share their projects accompanied by high-resolution visuals and step-by-step instructions of their making processes which provides a rich environment for others to learn through practice, develop projects and get inspired by. Besides, on the *Instructables* website, online courses are offered, and contests and challenges are held each month on a specified topic to encourage the maker culture even more (Instructables, n.d.).

As another example to this category, *Skillshare* is an online community on which people share their knowledge and skills through video-based online courses as well as in person workshops in cities like San Francisco and New York (Figure 2.9). The majority of courses focus on practice via class projects with the primary goal of learning by doing. At the end of the project-based classes, people can also share their projects for feedback from others. The main categories are design, business, technology, photography, film, writing, crafts and culinary along with a broad range of subtopics. On *Skillshare*, anyone can teach and get paid following the publishing guidelines to meet certain standards on all educational videos. Being an online platform with a hands-on approach on learning, it aims to empower people through making knowledge accessible to everyone (Skillshare, n.d.).

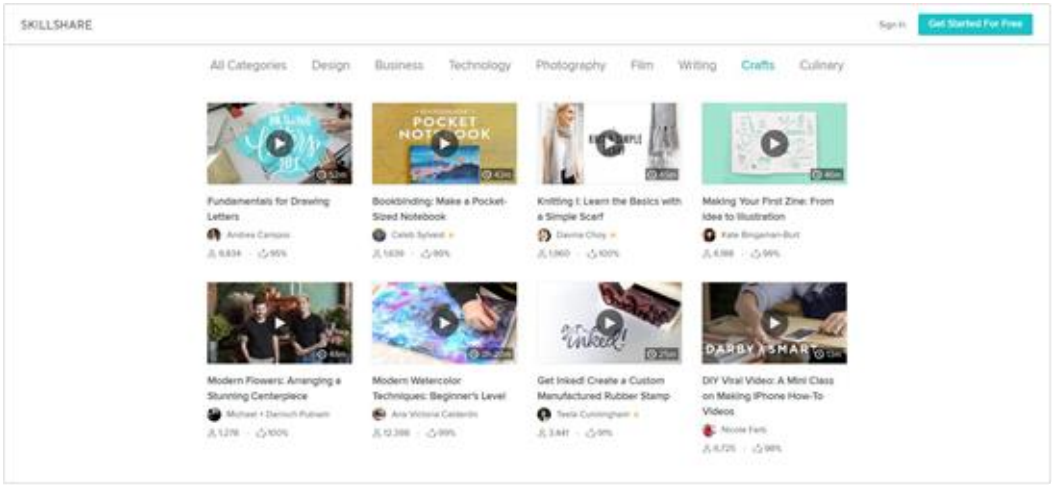

Figure 2.9: A screenshot from *Skillshare* website (Retrieved from https://www.skillshare.com/ May 1, 2016).

Etsy is a peer-to-peer web commerce website where users sell and/or buy handmade or vintage items as well as unique factory manufactured items (Figure 2.10). 'Peer-to-peer' (P2P in short) can be described as communication between equals in which people directly establish a connection with each other without any intermediaries in a network (Leuf, 2002). The items on the *Etsy* website include art, photography, clothing, jewelry, food, bath and beauty products. Many of these items have a unique feature that one cannot find everywhere whether they are handmade or mass produced, which is part of the appeal. The website provides a global shipping feature. Sellers

range from hobbyists to professional artists who use the site to make a living (Etsy, n.d.).

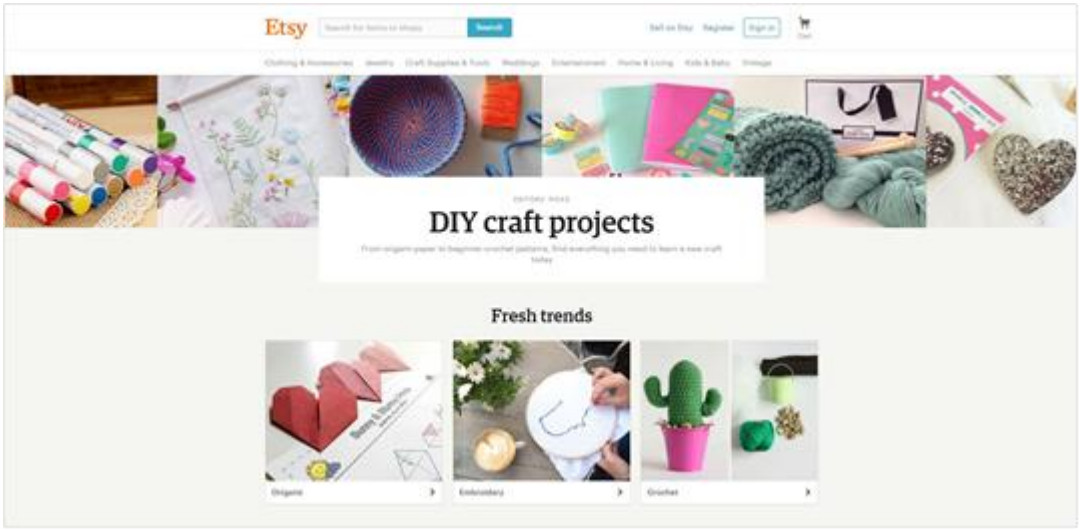

Figure 2.10: A screenshot from *Etsy* (Retrieved from website https://www.etsy.com/ May 1, 2016).

2.5.2 Social Empowerment through Skills Development

The institutions and organizations providing local employment through enabling craft skills are included in this category. While empowering people via craft design and production, they also contribute to the preservation of local crafts. For example, women collectives empower women through teaching traditional craft skills for the generation of income opportunities, and they promote craft practices while incorporating local materials, skills and local tastes.

An example to this category is an atelier built by Ödemiş Women's Cooperative (Figure 2.11) to support women's engagement with traditional textile craft. The cooperative and the atelier were established by seven women entrepreneurs concerning the replacement of this traditional craft with mass production methods and relatedly deskilling of local craftspeople. The primary aim of the cooperative is to empower women via collaborative craft production through incorporating local materials and dyes, craft techniques, local skills and the production of culturally significant products. The textiles of the Aegean town of Ödemiş and their production methods represent a multicultural history affected by Hellenic, Roman, Byzantic, Seljuk, Ottoman and Turkish cultures.

Figure 2.11: Ödemiş Women's Cooperative the process of silk textile production, reeling, spinning and weaving (Adapted from Atalay, 2015).

Having their origins in a more than 1000 years of silk weaving and crochet tradition, local textile craft products has a cultural significance with symbolic meanings. The women in the atelier produce silk shirts, pareos, blouses, dresses and accessories such as shawls, hats and soft jewelry, all by hand using a traditional type of Turkish crochet peculiar to the Aegean region namely, embroidery [*oya*] in their designs. Through hand production, the founders of the cooperative aim to reinforce local craft practice.

Besides, by training approximately 250 women in a variety of subjects such as weaving, silk spinning, dyeing, design, cooperation, and social gender inequality, violence against women, entrepreneurship, leadership and marketing, they provide employment opportunities for local women (Atalay, 2015).

The Turkish brand *Argande* is another exemplary case as a social responsibility project within the scope of 'Innovations for Women's Empowerment in the GAP Region' project run by the GAP Regional Development Administration with the technical support from UNDP and financing from Swedish International Cooperation and Development Agency (Figure 2.12). In line with the fashion designs created by Turkish designers, local garments are produced by 145 women from the southeast of Turkey with little or no incomes. The first collection of *Argande* was started to be sold in the stores of one of the biggest retail companies of Turkey, with the revenue of which the producer women was supported (Argande, n.d.).

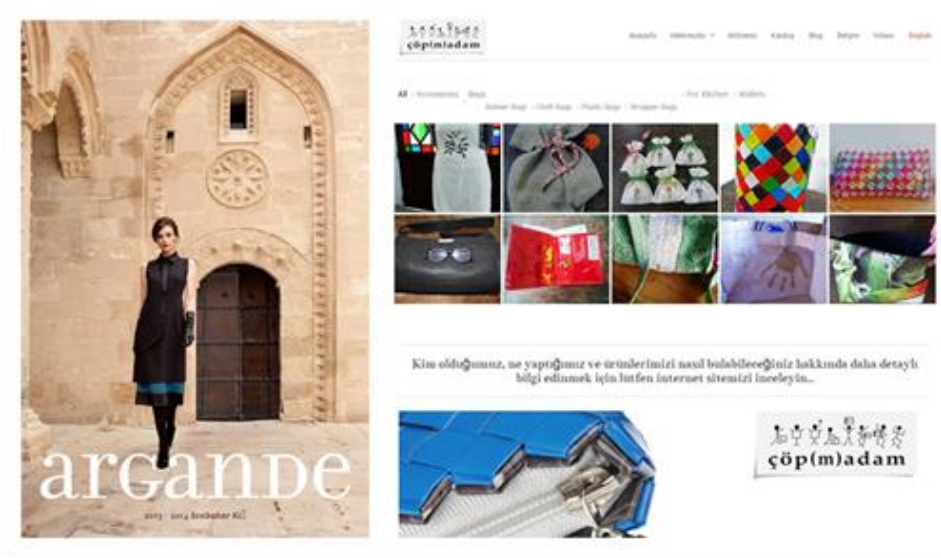

Figure 2.12: (*left*) One example from the *Argande* collection; (*right*) *Çöp(m)adam* website (Retrieved from http://www.argande.com/ ; http://www.copmadam.com/tr/ June 2, 2016).

Similarly, another example of social empowerment focused projects in Turkey is *Çöp(m)adam* (Figure 2.12). *Çöp(m)adam* is a local development project started in the Aegean town of Ayvalık, which aims to empower women by creating employment through up-cycling packaging waste via hand production. The main product designed and marketed in *Çöp(m)adam* is handmade bags made of waste material such as plastic packaging. While supporting women by providing income, the initiative also contributes to the protection of the environment. (Çöp(m)adam, n.d.).

2.5.3 Craftsperson as Designer

This category refers to traditional craftsmanship where the maker is also the designer. One of the key aspects of craft production is that designing and making processes are intertwined. The craftsperson makes her/his products based on tacit knowledge acquired through practice. Therefore, learning through making is essential in crafts. However, due to its very nature, traditional craftsmanship is regarded as labor intensive, highly intricate, thus expensive and time-consuming in current industrialized production system.

However, the case of coconut craftspeople in Lamu, Kenya is an exception to this view. A local craftsman, who is a traditional woodcarver, adapts his woodcarving techniques innovatively to coconut shells (Figure 2.13) which is a readily-available, inexpensive and sustainable material in the local area to meet tourists' demand for souvenirs. His handmade objects from discarded coconut shells including purses, teapots, bracelets, barrettes, earrings and buttons soon become a signifier of the island reminding tourists where they acquired them, and inspired other craftspeople on the island to engage in coconut crafting. The craftsman teaches his craft to other locals, making it the primary source for generating income (Wright, 2008). This case exemplifies the evolution/adaptation of traditional craftsmanship to current socio-economic conditions shaped by the presence of a vibrant tourist market.

Figure 2.13: Coconut products in Lamu, Kenya (Adapted from Wright, 2008).

On the other hand, 'One Master, Thousand Masters' [*Bir Usta Bin Usta*] is a social responsibility project initiated by Anadolu Sigorta Corporation, aiming to revitalize disappearing traditional crafts and local values in Turkey through the passing on craft knowledge and skills to new generations (Figure 2.14). Within the scope of this long-term project, it is planned, in a ten years period of time, to train twenty people every year through apprenticing to master craftspeople by focusing on fifty different local crafts (including traditional wood carving, jewelry making, silk weaving and stone working) in five provinces in Turkey, and at the end of the project to have a thousand trained master craftspeople. The project is funded by the Ministry of Culture and Tourism and conducted under the technical advisory of them to identify existing local crafts in Turkey. Additionally, at the end of the apprenticeship program, micro loans under special terms are granted to the apprentices to help them open their own workshops and contribute to sustain their craft practices (Bir Usta Bin Usta, n.d.).

Figure 2.14: Images from the ‘One Master, Thousand Masters’ training program, consecutively; traditional doll making, wood carving, basket weaving, felt making, boot making and pottery making (Retrieved from http://www.birustabinusta.com.tr/ July 10, 2016).

2.5.4 Collaboration between Designer and Craftsperson

This approach is characterized by the implementation of a design idea at craft scale where designers and craftspeople work together. The process is based on the exchange of knowledge and experience between the designer and the craftsperson. Correspondingly, the products are the result of this combination of traditional crafts with design.

Designers who work in collaboration with craftspeople in the clusters on the Eminönü-Karaköy axis in Istanbul (Figure 2.15) is an example to this category. The craft clusters in Istanbul’s urban neighborhoods, which are comprised of workshops, material suppliers, service providers and businesses located in close proximity to each other, thrive on the unique spatial context that is provided by social, cultural and economic structure of the city. This context, where everyday life practices and economic activities are interwoven, creates potentials for collaboration between local craftspeople and designers based on the making of designed products at craft scale.

These making processes is mainly characterized by the sharing of know-how and experience between designers and craftspeople, along with the resources, materials and making processes (Kaya & Yagiz, 2011).

Figure 2.15: (Consecutively) works of designers Hülya Çelik Pabuççuoglu and Özlem Tuna who both work with the master Vilyan in his workshop in Eminönü-Karaköy axis (Adapted from Kaya & Yagiz, 2011).

Another exemplary case for the collaboration between designer and craftsperson with a different approach, is the research project that is conducted in the western Aegean town of Turkey, Salihli (Figure 2.16). Preparing fresh bottled tomatoes for self-consumption is a traditional craft in Salihli, which is a practice mostly done by women. Based on the request of the local women for packaging designs and branding for their bottled tomatoes from professional designers to expand their products to contemporary markets, the designers organized two workshops based on co-creation projects. Through the workshops, the designers aimed to encourage women to design their own packaging, while also teaching them self-innovation, instead of creating a brand identity for the products on their own (Kaya & Gelmez, 2013).

Figure 2.16: Representative works of both designers and participants from the design workshop on the design of tomato bottle packaging in Salihli (Adapted from Kaya & Gelmez, 2013).

In another study, Reubens (2010) collaborated with an indigenous bamboo working tribe, known as Kotwalia, in India, with the aim of empowering local craftspeople and sustaining their traditional craft through providing potential directions for its evolution (Figure 2.17). The production of bamboo products, including fish traps and basketry based containers ranging from huge granaries to baskets of varying size both for self-use and trade for grains, is the community's only source of income. Although, bamboo is a locally sourced material harvested from the nearby forest in the area, due to the government-imposed restrictions, the community has no-longer access to the material. Despite the fact that the lack of industrialization in India has caused the rural crafts to survive until today, both limited access to the raw material and the threat of mass-produced substitute products have led to a decline in craft production. Therefore, the transfer of the tacit knowledge from generation to generation through traditional apprenticeship is disrupted. In a response to these problems regarding the traditional bamboo craft, Reubens (2010) developed a product library in collaboration with the local community to document and archive the tacit knowledge embedded in the craft. Based on the analysis of the product library, Reubens proposed a framework namely

‘the Rhizome Framework’ to provide designers and the community with a tool enabling the application of indigenous knowledge in the development of new innovative products (Reubens, 2010).

Figure 2.17: (*top-left*) Plastic substitutes for agrarian bamboo products, (*top-right*) Kotwalia craftspeople carrying a large fish trap to the river, (*bottom-left*) Granary made from bamboo plastered with mud, (*bottom-right*) Kotwalia woman holding a large basket (Adapted from Reubens, 2010).

Furthermore, the project namely ‘Increasing employment by integrating design skills in woodworking’ that was conducted in Kastamonu, Turkey is another example. Within the framework of this project, design educators from the department of industrial design in Middle East Technical University (METU) in Turkey collaborated with local woodworking craftspeople in Kastamonu. With this European Union funded project that was carried out to promote local youth employment, it was aimed to integrate design and creative thinking skills into the traditional woodworking training and to foster the creativity of young talents while revitalizing local crafts. It consisted of a six month design and woodwork training programme involving ninety trainees. In the design training module, trainees were taught basic design principles, technical

drawing and sketching methods in order to improve their visualization skills along with the idea generation, concept development practices and quick modeling techniques by design educators. On the other hand, in the woodworking module, which was conducted by local craftspeople, trainees practiced traditional woodworking techniques. The project also included workshop practices, seminars, field trips and product development activities. At the end, sixty trainees completed the programme with at least two original design works that they created, while thirty of them were selected to practice their craft skills they gained during the programme in the Kastamonu craft industry (Hasdoğan & Hasdoğan, 2015).

Lastly, 'Designers Meet Artisans' project by the Craft Revival Trust (2005), provides a range of case studies in India and Columbia based on collaboration of designers and craftspeople. In the context of the studies, through their direct exposure to craft processes in their local environment, designers together with the local craftspeople developed design interventions with the aim of revitalizing traditional local crafts and creating new designs using indigenous craft knowledge to expand its market. Additionally, the project puts an emphasis on the documentation of the traditional crafts to enrich designers' and craftspeople's knowledge base. Based on the findings from the case studies, some guidelines for the revival of crafts are also proposed that can be applied in different contexts (Craft Revival Trust, 2005).

2.5.5 Creating a Local Hub

A local hub is the cluster of local skills based on craft scale production in a network structure in certain districts especially in the city centers, continuing its existence and production depending upon this network. The existence of a craft network attracts designers and other creative actors forming a 'creative hub' (Ingin & Altay, 2014, p. 186). Certain social, cultural and economic conditions in a particular location lead to the forming of a local hub, which is characterized by a range of essential factors, including the spatial proximity of workshops, material suppliers, services and

businesses, interdependency among local stakeholders and the authorship/ownership belonging to multiple actors (Kaya & Yağız, 2011).

Figure 2.18: ‘Made in Şişhane’ Project - craftspeople and students working together in a wood workshop (Adapted from Ingin, 2016).

An example for this category is ‘Made in Şişhane’ Project conducted in the context of a second-year industrial design studio course in Istanbul Bilgi University Department of Industrial Design (Figure 2.18). In the project, it is aimed to explore the ways of integrating craft workshops in the city to contribute to the industrial design curriculum. Craft neighborhoods in Istanbul are host to creative spaces within which a unique design-production relationship exists. Within the context of the undergraduate course, industrial design students apprenticed to craftspeople in workshops in Şişhane and Galata districts in Istanbul that specialize on a range of materials and production techniques including metal, wood, acrylic and wire working, lampshade, pantograph and *saz* making (a stringed music instrument). During the making of design projects throughout the course, the students actively involved in the hand production processes which unify designing and making stages (İngin & Altay, 2014).

In a similar approach to the above mentioned project, the 'Masterpiece Beyoglu' [*Usta İşi Beyoğlu*] is a contemporary apprenticeship program which aims to combine traditional mastery training with the current means of creativity and production in an attempt to revive and update traditional apprenticeship (Ingin, 2016). The program focused on the craft workshops in Beyoglu, Istanbul, by emphasizing the craft practices here as a mode of production, which has managed to evolve and stay relevant to contemporary needs and demands instead of disappearing. Masterpiece Beyoglu was a multi-faceted program including master-apprentice seminars, workshop improvement works and creative workshops, along with traditional apprenticeship training. Within the context of the program, training sessions were carried out on a variety of topics, including the making of craft products, evolution of craftsmanship into design, hand drawing for product design and computer-aided drawing. The program was completed with the Crafts Once Again Exhibition in which the projects that the apprentices created based on the craft knowledge and skills they gained during their training with the master craftspeople (Ingin, 2016).

The last example to this category, is the field study conducted in Santa Fe in New Mexico, USA, as an ongoing research project which explores the "creative ecology" that is shaped by the unique social and cultural characteristics of the region (Jung, Walker, Evans, Cassidy & Twigger-Holroyd, 2015). With its long tradition of arts and crafts that is continued to be practiced by the local Native American and Hispanic communities, Santa Fe is known as a creative cultural center housing to lots of museums, galleries, artists and craftspeople as well as arts and crafts markets organized during the summer. Through exploring the place-specific key factors leading to the existence of a thriving creative context, the project aims to develop design-led methods to contribute to the revitalization of crafts (Jung et. al., 2015).

In this chapter, through an extensive literature review, the historical background to crafts, its characteristic features, its relation to sustainability, technology and design, and also the situation in Turkey regarding traditional crafts are explained. Later, the current approaches that combine craft and design for the empowerment of craft skills are assessed and presented through a categorization. In the following chapter, the initial exploration phase that is conducted for the identification of the existing local

crafts in Ulus area in Ankara to focus on the field research is explained. While offering a brief overview to the study site, insights into how and why the specific cases that have been selected for the primary research are also presented.

CHAPTER 3

INITIAL EXPLORATION

The initial exploration phase includes the exploration of the Ulus area in Ankara for identifying local crafts to focus on the later stages of the research considering their accessibility and role in that area. This phase is comprised of three stages: accessing the archives, reaching the Union of Chambers of Tradesmen and Craftsmen of Ankara and lastly conducting the field exploration.

3.1 Accessing the Archives

During my research about the documentaries on traditional crafts in Turkey, on the website of the TRT Archive Head Office, I came across the archive list including the Turkish Radio and Television (TRT) documentaries that were broadcasted between the years 1968-2008. The inventory included a brief information on every documentary series along with the title list of the episodes. I was intrigued especially by the documentary series 'Handmade' among the extensive list. It comprises of 73 episodes that were produced to document the existing traditional crafts in Turkey and directed in various regions and cities across the country by accessing 90 craftspeople in total. In every single episode, a different craft, its history, its processes and current applications are described. On the 1st of February 2016, in order to access that documentary series, I first contacted the TRT Archive Head Office through the contact number on its website by stating that I would like to access and/or purchase the documentary. I was invited to look at the documentaries archive and given the permission to access it in the Archive Head Office in TRT's headquarters in Ankara Oran. When I arrived there the next day, I was offered a four-volume printed version of the inventory of the documentaries which is also available online, namely "the whole documentary archive of TRT [*TRT'nin tüm belgesel arşivi*]. I was informed that

I could find the videos of the documentaries in the TRT Market which is also located at the headquarters campus. I went there and finally achieved to buy the 'Handmade' documentary series on DVD. I thought that it would be a useful resource to get an initial idea about the traditional crafts; however, I realized that the recording is comprised of five-minute-long short episodes on which a different craft is presented. Even the documentaries appeared to be exciting in the first place, since they do not provide an in-depth source regarding the traditional crafts in Turkey, I have come to decide that this would be a very limited resource for the purpose of my research.

3.2 The Union of Chambers of Tradesmen and Craftsmen of Ankara

In an effort to identify the existing crafts in Ankara where I intend to conduct the primary research, I first contacted the Union of Chambers of Tradesmen and Craftsmen of Ankara (ANKESOB) prior to my initial exploration on the area. After explaining a brief overview of my research on the craftspeople in Ankara, I asked whether they would have an inventory of crafts and registered craftspeople. I was told that they could not share such an information with me, yet the relevant chambers might help. Then, I searched the contact numbers of the chambers on the ANKESOB website. A variety of professions ranging from bus drivers to craftspeople have chambers in various districts in Ankara, distributed according to the places where they are mostly practiced. Among the long-list, it seemed that most of the chambers related to the crafts have been located in Beypazarı and Ulus districts of Ankara. As Beypazarı is a peripheral district of Ankara, which is 100 km away from the city center, I decided to focus my research on the Ulus area because of its central location and accessibility. Therefore, I selected the Ulus Tradesmen and Craftsmen Chamber as being the only chamber in the Ulus district, and called them to request specific information related to the local craftspeople and the places to reach them. After a few telephone calls, I learned that the only places in Ulus where craftspeople are clustered and still actively continue craft production are Stovers Bazaar [*Sobacılar Çarşısı*] including metal ware workshops, and Coppersmiths Bazaar [*Bakırcılar Çarşısı*] located in Hay Bazaar [*Samanpazarı*] and the Ankara Castle area housing a few coppersmiths and tinsmiths.

Therefore, before continuing with the next stage, I planned the route of my initial field exploration based on this information.

Figure 3.1: The route map for the initial field exploration in Ulus area.

3.3 Field Exploration

Regarding the information I acquired from the Ulus Tradesmen and Craftsmen Chamber, I planned my route as follows: first Stovers Bazaar [*Sobacılar Çarşısı*] in front of the Ankara Marketplace [*Ankara Hali*], second Coppersmiths Bazaar [*Bakırcılar Çarşısı*] located in Hay Bazaar [*Samanpazarı*], and finally the Ankara Castle and its surrounding area (Figure 3.1). Following this route, I intended to finish the initial field visit in a day along with short interviews and exploratory observations with the aim to identify the existing crafts in Ulus area. Beginning the initial field exploration on the 11th of February 2016, my first stop was Stovers Bazaar where shops selling metal kitchenware, metal stoves and knives are clustered.

During my brief interviews with two metal stove shop owners, I asked them whether they produce their products by hand. I have come to learn that the shops in the Stovers

Bazaar mostly sell ready-made products, and none of the shop owners actually makes craft production except from some welding and knife-sharpening activities. After approximately half an hour, based on my observations on the place and short interviews, I decided that the shops in this district would not suit to the purposes of the primary research as there was no craft activity.

Without spending more time there, I headed towards the second stop on my route which was Coppersmiths Bazaar. Passing through Hay Bazaar, where dowry products and clothes, fabrics and household items were sold, I arrived at the Coppersmiths Bazaar. Here, there was a cluster of copper producer/sellers which either completely produce by hand in the workshops and/or do surface engraving on copper products along with the ones selling only ready-made copper items (Figure 3.2). Among the five coppersmith workshops in the area, I visited two of them.

Introducing myself as a master's student at METU in the Department of Industrial Design, I explained briefly my research on the craftspeople in Ulus area, and in order to get some idea on their craft practices, I asked coppersmiths whether they would produce completely by hand, the areas in the workshop that craft production took place, and the processes and the duration of production. One of the craftsmen stated that he makes half of the products in the workshop by hand and the rest were ready made products. The other craftsman, on the other hand, was making only surface engraving on copper items. Both showed me the places they work. As one of the craftsmen was making a copper bowl in the workshop at the time of my visit, I had the chance to observe at least a part of the coppersmithing process. During this time, the first thing I noticed was that although the production process seemed to be time consuming and labor intensive, it required only a few tools and did not necessitate a large working space, which probably allowed this very craft to exist in that area until today. As coppersmithing has been the most common craft practice in the area, I decided to include one of the two coppersmiths I visited here later in the field research phase. In case that these craftspeople could later be interviewed extensively within the fieldwork, I intentionally kept the interviews quite short at the initial exploration phase.

During the short interviews with the craftspeople, all of them seemed to be willing to be a part of the research, and were very open to share their processes.

Figure 3.2: A coppersmith workshop in the Coppersmiths Bazaar [*Bakırcılar Çarşısı*].

The last stop of my exploration was the Ankara Castle area. Owing to a previous workshop that I participated in the context of ID 561 Product Design for Sustainability graduate course at METU in the Department of Industrial Design, I have been already familiar with the area and the existing craft practices there. I wanted to visit shortly a prayer beads maker, a macramé maker, a quilt maker and a copper workshop (Figure 3.4). Especially in the macramé maker's workshop, the applicability of the macramé craft techniques to a wide variety of products and three dimensional forms such as swings, net bags and plant pot holders, and the flexibility of that transformation aroused my interest for further research. Considering the possibilities of the material and the adopted techniques, integrating the macramé maker into the next stage of the research appeared to be suitable.

Figure 3.3: A coppersmith is applying surface embellishment on a copper pot.

Figure 3.4: From left to right: the prayer beads maker's workshop, the macramé maker's workshop and the quilt maker's workshop in the Ankara Castle area.

Furthermore, through the interviews with two basketry sellers in the area (Figure 3.5), I found out that some of the basketry products in the shop have been sourced from a few families who live in the inner Castle and weave basketry products by hand in their homes. Hoping to find them, I walked into the inner castle and kindly asked a security personnel at the entrance to show me the houses where the families live. I learned from him that there were two basketry producer families in the inner Castle. In company with the security personnel, I entered in the yard of one of the houses the families live in (Figure 3.6).

Figure 3.5: A basketry shop around the Ankara Castle.

With a quick interview with one family member, I introduced myself as a researcher and shortly explained my research. He told me that as they currently wait for the raw materials namely osier willow branches to come, they were not producing anything at the time, but I would be very welcomed to ask anything or come later on. He also expressed that they would be glad to host me at their homes and to participate in the research. In contrast to the craft workshops I visited in the area so far, I thought that conducting the research in craftspeople's own homes might pose some problems, as

it might be disturbing for the families to repeatedly visit them at their home for considerably long periods of time. However, as basketry production was a fairly new process that I have not yet observed, I was curious about their production processes. Therefore, I decided to visit them later again after I got their consent for my research.

Figure 3.6: The houses of basket weaver families in the inner Castle.

Additionally, due to my previous experience on the area, I already knew that there was a gourd maker's workshop in the inner Castle that I would like to visit, yet I could not do so, as the workshop was closed on that day. However, as I visited the craftsperson previously for the before mentioned workshop, I had the intention to include him in the further research. Because of the innovative tools he developed to make gourd lamps, I thought that this might be a promising case to explore the adaptation of the craft and its integration with the new techniques and tools.

Figure 3.7: The entrance of the Akeka women collective shop where the craft objects are displayed.

My last stop was Akeka (Figure 3.7) which I first came across during my online research. It is a production cooperative established by women entrepreneurs located in Pilavoglu Inn [*Pilavoğlu Hanı*] near the entrance of the Ankara Castle. While holding courses for amateur learners, they also sell their handmade products combining traditional and contemporary making methods. Felt making, silver jewelry making, glaze making, soap forming and even cheese making are some of the courses at Akeka. Banu Akkuzu, one of the founders of the cooperative, was present at the shop during my visit. She stated that they mostly offer felt making courses in their atelier. She had learned felt making from a craftsman in Konya and has been teaching this craft in Akeka since then. As Akeka is primarily a learning-based cooperative, it differs from other craft workshops in the area in the sense that craft making takes place as an amateur part-time activity. Regarding the majority of master craftspeople in the area who use their traditional craft skills in craft making, the approach of my research

seemed to be more suitable to fit into the ‘Craftsman as Designer’ category as explained in section 2.5.3. In this sense, as craft is considered as an amateur activity in the case of Akeka in contrast to the other craft examples in the area, it is more likely to be included in ‘Social Empowerment through Skills Development’ category which is also explained in section 2.5.3. Although at first this difference seemed that it might be promising in terms of providing variety in the further stages, later I decided not to include it in the research to maintain the consistency for comparing and contrasting the cases. I completed the initial field exploration within the scope of which I tried to identify crafts and craftspeople that I could possibly integrate into my primary field research in Ulus area of Ankara.

At the end of the initial exploration phase, I decided to continue with four specific crafts for the further stages of the research including gourd making, basket weaving, coppersmithing and macramé making as they were the most accessible craft cases among the existing crafts that I explored in the area. Moreover, all of the selected cases fit into the same category among the categorization mentioned in the section 2.5, namely ‘the Craftsperson as Designer’ category regarding the role of the craftspeople in the making process in order to provide consistency in the analysis for the following stages of the research. After this phase, I contacted with the selected craftspeople individually asking for their availability on different dates before continuing with the case studies.

3.4 Identification of the Study Site: The Ankara Castle

Based on the information I acquired at the initial exploration phase, I decided to focus on the Ankara Castle area for further study. Housing a diverse range of craft workshops, it is one of the few places in Ankara where the craft workshops have been clustered. Therefore, the area is of great importance for sustaining local crafts.

The Castle and its surrounding area is the oldest settlement at the old city center of Ankara. Located on a hill leading the city, the construction date of the castle is unknown. After 1300 up until the beginning of the 1900s (during the Ottoman Empire period), it has continued the function of being a trade center (Ankara Directorate of

Culture and Tourism, 2013). The studies point out that, in the past, a diversity of craft practices existed in the Ankara Castle area such as coppersmithing, knife making, pottery making, blacksmithing, kaftan making, tin plating, soap making, painting [*nakkaşlık*], basket weaving, felt making and quilting (Elverdi, 1998). This previous variety of the Castle in terms of traditional crafts is considered to be developed due to a number of reasons including the economic vitality during the rise period of the Ottoman Empire, being located on the main trade roads and positive impacts of craft guilds on the economy (Tunçer, 2001). Until the establishment of the Turkish Republic in 1923, the Castle area continued to be the center of the city where crafts supplied products responding to the everyday needs of local residents. However, with start of the young republic's industrialization process and the following socio-economic changes, the city center has shifted gradually which lead to the disappearance of most of the crafts at the site of the Castle (Yavuz, 2006).

Today, the Ankara Castle has transformed into mostly a touristic area as a historically and culturally significant place, and defined as a first-degree archaeological site to be preserved (Yavuz, 2006). Nevertheless, a number of crafts are still continued to be practiced through evolving over time and adapting themselves to the current conditions of the special context in which they exist. There is a closed network of local craftspeople in the area who are focused on a few crafts including; coppersmithing, basket weaving, hammock making, tin plating, calligraphic wood engraving, prayer beads making, quilt making and finial [*alem*] making. Additionally, in various art studios around the Castle, artists are engaged with ceramic, glass making and painting while in ateliers such as Akeka as mentioned previously, craft courses are held for amateur learners. These different craft practices, their products and materials are available within a walking distance in the spatial structure of the Castle area. Local craftspeople continue their existence highly dependent upon this craft network which has been formed through the peculiar social, cultural, economic, historic and spatial context of the place. As the Castle and its surrounding area have a focal touristic feature, all of the four local craftspeople, who have been interviewed and observed, stated that they started their crafts in order to mainly attract the tourists visiting that area, and thus they would not survive in any other place in Ankara but the Castle.

Therefore, it can be argued that the existence of a tourist market helps the proliferation of crafts, as the visitors specifically search for the authentic and culturally relevant products.

The craft workshops and shops at the site of the Castle can be categorized into three namely; traditional workshops, shops that sell mass-produced, cheap goods imported from Far East along with locally produced ones and art galleries/workshops. The traditional craft workshops have certain characteristics based on small scale craft production. Local craftspeople in the district who continue hand production using simple traditional techniques, are mostly focused on the making of craft products rather than selling. Therefore, they do not have catalogues of their works and do not sell via Web-based platforms. They mostly produce on demand, and exhibit some of their past works in their workshops to give an idea about their craft to the users. The products are made and/or adapted through a face-to-face dialogue between the craftsperson and the user, which creates a room for users to better express their needs and ideas. As the craftspeople in the area do not have the capacity to produce in high volumes, they supply materials mostly from the local warehouses upon their needs. They own small workspaces, where often the craftsperson is the owner and work alone/with a few people via apprenticeship. In all of the cases, the master-apprentice relationship, which is the traditional pattern through which practical knowledge embedded in crafts is transmitted on to the new generations, seems to be interrupted due to mainly economic reasons. This situation threatens the sustainability of these crafts along with the interactive and responsive production system they offer within this craft network.

3.5 The Cases

After the initial exploration, as the second phase of the field research, I focused on the four specific crafts at the site of the Ankara Castle. As this study seeks an in-depth understanding of craft skills and knowledge in terms of crafts people's practices, working conditions, needs and expectations, qualitative research is adopted as the method and approach. Qualitative research aims to provide an in-depth and interpretative understanding of the social world through learning experiences,

perspectives and histories of participants (Ritchie & Lewis, 2003). Considering the goal of this research, I utilized a number of qualitative methods including field observation via photography, video and audio recordings, in-depth individual interviews and case study. In order to identify the potential contribution of design to the empowerment of craft skills, and to unearth new opportunities for local crafts, as an observer and researcher, I tried to develop a full understanding on craft making processes, tools and materials in relation with the craftspeople. Observation provides the researcher with the opportunity to record and analyze the participants' behavior and interactions, and it is useful especially when the research is concerned with investigating a process involving several stakeholders (Ritchie & Lewis, 2003).

Semi-structured interviews are widely used in qualitative research to elicit data by asking the participants questions in line with the purpose of the study (Robson, 2002). In a semi-structured interview, the order and the wording of a set of predetermined questions can be changed along with the differing situation (Robson, 2002). In comparison to structured interview including predetermined questions with fixed wording and unstructured interview with no predetermined questions, semi-structured interview as a data collection method would give me enough flexibility while providing in-depth information.

The participants were recruited by purposive sampling from the non-probability sampling methods in which the participants are chosen because of their particular features to enable the exploration of critical themes within the study (Ritchie & Lewis, 2003).

I prepared the interview questions and categorized them in nine parts based on their aim, namely; the features of the craft, the features of the working environment, making process, materials, tools, participants in the process, users, craft products, and comments and suggestions questions (Table 3.1) (Appendix B). I used a small-size video camera and a tripod for the video recordings, while also holding a photo camera to take photos at the beginning and end of the interviews. Considering that the interviews took place in small workshops, I recorded my field observations from a fixed point aiming to minimize my interaction with the camera during the process.

Asking their consent of the participants to record the interview, I left the camera running throughout the interview, unless the craftspeople wanted me to switch it off. Firstly, I asked each craftsperson to complete a craft product or a part of it, and observed the making process via video and audio recordings to explore the features of the specific craft. In the meantime, I asked the interview questions to the craftsperson.

Prior to the interview, I briefly explained an informed consent (Appendix A) with the aim of providing the craftsperson with information about how and where the data would be used, how long the interview would take, what would be required from the respondent and how the anonymity of the interviewee would be achieved, and requested the approval of the participant. The sessions took approximately between 30 and 90 minutes (Table 3.2).

In the following sections, I describe the field research I have undertaken, firstly with a calligraphic wood engraving maker, secondly with a macramé maker, thirdly with two basket weavers, and lastly with two coppersmiths.

Table 3.1: Semi-structured interview questions.

Interview Questions	
Features of the Craft	**Q1:** How & when did you learn this craft? [From whom?]
	Q2: Since when have you been engaged in this craft?
	Q3: Why did you choose this craft as an occupation?
	aim: the identification of the story of the craftsperson along with her/her social and economic conditions
The Features of the Working Environment	**Q4:** Why did you prefer establishing your workshop particularly at the site of Ankara Castle?
	Q5: What do you think about your relationship with the craftspeople at the Castle and its surrounding area? Is there any collaboration in terms of work? Do you share any tools, materials etc.?
	aim: the identification of the opportunities and challenges of the environmental conditions and the working environment both for the craftsperson and the researcher
Making Process	**Q6:** Please explain the making process of the selected product.
	aim: the identification of the craft and the craft skills which are utilized during the making process and the features of them
Materials	**Q7:** Where do you get/source the materials? Where do the materials come from? Do they come from Ankara or somewhere else? Are they processed there or come from somewhere else? [Asked for all the materials while explaining or showing the making process.]
	Q8: What are the reasons for supplying materials outside of Ankara?
	Q9: Why do you supply materials from this place? Are there any local and/or regional alternatives of them? How might the use of these be encouraged? Are there any materials that you can get regionally? To what extent do you prefer using these? Why?
	Q10: Do you re-use materials? Could you give an example?

	aim: the identification of the source of materials, local and/or regional alternatives of materials that are economical and environmentally-friendly, and the opportunities and challenges of using them, storage and re-use of materials
Tools	**Q11:** Which tools do you use? For which specific material and part do you use these tools? Why do you prefer using these? How do these tools differ according to varying products? Could you give an example?
	Q12: Do you made these tools yourself? If so, how?
	Q13: Can any other tools be used instead of these? What might the other tools be? Why do you not prefer using these?
	aim: the identification of all the tools which are used in all the stages of the making process and their purpose
Participants in the Process	**Q14:** Are there any others who work with you during the making process? If yes, what are their roles? How do they engage in the making process?
	Q15: If there is no one, would you want someone working with you? Why?
	Q16: Is there anyone to whom you teach this particular craft skill?
	aim: the identification of all of the participants in the making process, master-apprentice relationship and the transfer of skills and know-how
Users	**Q17:** Who does buy your products (local or foreign tourists, local people etc.)?
	Q18: Are there any products that are often preferred by certain user groups? What are these? Why?
	Q19: Do the end-users contact you because of the reasons such as repair, maintenance etc.?
	aim: the identification of the user-craftsperson relationship and the user groups

Craft Products	**Q20:** How do you develop your products? Do you adapt them from somewhere? How do your first ideas and solutions come up? Could you give some examples from the products?
	Q21: How do you determine the product range (suggestions coming from the users etc.)?
	Q22: In what ways do you think your products differ from their counterparts on the market? Could you give some examples?
	Q23: Is there any place that the products you produce up to now are exhibited and/or displayed? Or are they published anywhere? Do you keep the photographs and/or samples of them?
	aim: the development, documentation and exhibition of the craft practices and products
Comments and Suggestions	**Q24:** What are the required conditions for you to sustain your craft? How would you evaluate your current conditions?
	Q25: What kind of the challenges do you face (making processes, working environment, environmental conditions, materials etc.)?
	Q26: What are your suggestions to improve your working conditions?
	Q27: What are your suggestions for the empowerment of craft?
	aim: the identification of the insights of craftspeople regarding the sustainability and revitalization of the craft based on their experience

Table 3.2: Research participants, date and duration of the interview sessions.

Participant	Date of Interview	Duration
Calligraphic Wood Engraving Maker	6th April 2016	110 mins
Hammock Maker	10th April 2016	90 mins
Basket Weavers	24th May 2016 (3rd May 2016 additional interview)	55 mins (40 mins additional interview)
Coppersmith 1	15th June 2016	95 mins
Coppersmith 2	14th August 2016	30 mins

CHAPTER 4

FIELD RESEARCH

Based on the findings from the initial exploration phase mentioned in Chapter 3, I decided to focus on four specific crafts among the existing craft practices in the Ankara Castle area for the following stages of the research, namely gourd making, macramé making, basket weaving and coppersmithing. Regarding the role of these craftspeople in the making processes, the approach for the following stages of the research is identified as suited to the 'Craftsperson as Designer' category as mentioned in the section 2.5.3 which refers to traditional craftsmanship where the maker is also the designer. In this chapter, case studies on these crafts are presented in detail that are conducted to explore the craft skills and knowledge in terms of craftspeople's practices, products, working conditions, needs and expectations to be able to identify opportunities and challenges that would yield potential design directions for the empowerment of craft skills and craftspeople. This chapter concludes with a table summarizing the significant conclusions from the field research.

4.1 The Calligraphic Wood Engraving Maker

On the 31st of March 2016, I visited the craftsman in his workshop. After I informed him about the research, he willingly accepted to participate and gave me an appointment for the interview on the 6th of April 2016 along with his contact number to remind him our interview schedule the day before.

On the morning of April 6th, 2016, I was in his workshop again. I told the craftsman that he would be free either to start a new piece of work or to continue on an existing one that would not take more than one hour to make. He stated that he was already working on a calligraphic wood cutting board, thus he would prefer keep on making it. As I knew that he was making gourd lamps under his own brand name Gourd Uncle [*Kabak Dayı*] based on my previous visit to his workshop last year, I asked him

whether he stopped gourd making or not. He confirmed that he quitted making gourd lamps by stating that as gourd is a brittle and voluminous material which he supplies from Hatay, a southeast city of Turkey, gourd lamp making was not an economically feasible craft anymore. Therefore, he now continues with the calligraphic wood engraving. Although I was expecting to observe gourd making processes, I was very intrigued to see how the craftsman has transferred his practical know-how on to a different craft, so I decided to proceed the interview.

Knowledge and Experience of Craftsperson in Relation to the Features of the Craft

As the craftsman has carpenter family members, he has grown up in wood workshops. He began wood cutting as a self-driven hobby to produce his own designs. He started by making lamps, baskets and bird cages. He has been using fret saw for approximately seven years now, and has nearly thirteen years of experience in total with wood at the craft scale. Being impressed by calligraphic wood engraving works in the Grand Mosque of Bursa, he started doing research on calligraphic wood engraving with an urge to learn the craft. As he researched, he decided that it would be necessary to be able to write Arabic calligraphy, if one wanted to excel at this craft. Thus, he started taking Arabic calligraphy courses in Ankara five years ago and still continues to work on his writing. However, his intention was not to become a calligraphy artist, he just wanted to improve his woodcutting skills. Based on his experience on wood material, he trained himself on its different application areas in order to make his own designs. There is a variety of works that he does based on wood and fret saw by using traditional production methods such as commissioned wooden portraits, lamps and natural wooden puzzles for kids (Figure 4.1). He stated that his cutting has improved with the help of all other kinds of commissioned works as well, not just by cutting Arabic calligraphy. As he researches a lot on the subjects related to his craft and he is also a tech-savvy (aware of the new technologies and new wood processing tools) craftsman, he seems to be quite open to any new developments related to his craft.

Figure 4.1: Craftsman's various products including wooden puzzles for kids.

The Features of the Craft

Artefacts found in the burials in Central Asia have shown that the Turks engaged in wood craft from pre-Islamic times (Ödekan, 1997). However, as arts like sculpture and painting is not allowed in Islam, Muslim Turks excelled in the working of wood and stone (Unutmaz, as cited in Sancak, 2013). The art of wood workmanship was used particularly on the decoration of architectural parts by the Seljuk Turks who produced elaborately carved doors, mihrabs, pulpits, lecterns, caskets and various other architectural elements (Ödekan, 1997). However, the Ottomans carried this art to the highest levels. Wood works in the Ottoman period demonstrated a wide range of techniques being employed, while calligraphic wood engraving was one of them. Although there is not a specific term used by the Ottomans for wood carvers, some documents refer to them as '*nahhat'* (Yücel, 1977).

Calligraphic wood engraving ['*naht'* in Arabic] is a traditional Turkish-Islamic craft based on cutting Arabic calligraphy out of wood. It combines calligraphy [*hat*] and ornamentation [*tezyinat*] arts with wood engraving craft. In calligraphic wood engraving, the Arabic calligraphy ['*hat'* in Turkish] is transferred on to the wood by

using the technique namely ‘vertical engraving’ which is based on creating the pattern by cutting using a fret saw or electric jigsaw (Asarcıklı, 2002, as cited in, Arıkan, 2009, p.29). As the craftsman participated in this research stages, he states, the calligraphy is sometimes eloquently ornamented with a technique called *tezhip*, which creates very complicated floral and geometrical patterns in and around the calligraphy. After the wood is treated and shaped into a three-dimensional calligraphy, it is backed either with a wood or a fabric background. The wood engraving works in his workshop are some of the samples (Figure 4.2). Although wood working in various forms and techniques is one of the oldest traditional Turkish crafts, there is just a few written documents on calligraphic wood engraving.

Figure 4.2: Some of the calligraphic wood engraving works in the workshop.

The Features of the Working Environment

He established his workshop in the Ankara Castle five years ago (Figure 4.3). As most of the workshops in the area, it is a small workshop located in front of the main entrance of the Castle. He thought that the Castle is one of foremost of the historical places to visit in Ankara. As his workshop is located in such a place, he has foreseen

the tourist market of the Castle as an opportunity, and preferred to make gourd lamps for tourists as a craft product that might be appealing to them. As he considered himself as a maker who is mostly focused on production rather than selling, he prefers selling his craft works in a workshop instead of a luxurious art gallery. He thinks that the other craftspeople at the Castle share many things and support each other in various ways – beyond sharing ideas, materials, tools, and directing buyers to each other, emphasizing the cooperation being one of the key features of this place.

Figure 4.3: The entrance of the workshop in the Inner Castle.

Figure 4.4: The working space of the craftsman.

The Making Process

The product that the craftsman was working on was a commissioned work for a mosque in the Inner Castle, an 80x110 cm size calligraphy board on which the Prophet Mohammed's name was written. The material which he was cutting the calligraphy was a five-mm thick MDF board. To be able to cut a piece with jigsaw, he first drills holes on the board. On complicated pieces such as a Rumi pattern (Figure 4.5), he drills up to 1412 holes. He opens the jigsaw, cuts a small area, closes it and repeats the same process on every hole. Making process begins by finding the calligraphy either from the calligraphy artist working with him or from some other artists from whom he subcontracts these works. An Arabic calligraphy artist needs a special license [*'icazet'* in Turkish] given by his/her master to be able to sign his/her own works. As he does not have this license, he does not write the calligraphy himself. Both the signature of the calligraphy artist and the craftsman are placed on the work. Then together with his wife, he scans the calligraphy work, scales it digitally on vector-based graphic programs, and outlines the patterns, so that they can be traced easily while cutting. It is important that the letters must be in a size that the jigsaw can be rotated inside it. After this, he prints it out, and uses it as a template for cutting. He temporarily attaches

the paper template on the wood panel. Since the calligraphy is comprised of multiple characters, he plans how to cut the whole writing as a single piece as much as possible, so that the original composition of the writing is preserved. After the cutting process is completed, the surfaces of the pieces are painted with a gold bronze pearl-dusted paint. He uses 80x110 cm standard size velvet American mat board as a back panel to present the calligraphy pieces. However, for large-size works which is about 1,5x2 meters, he covers background panels with different colored and patterned thin-stretched velvet fabric himself by gluing it on a plywood or solid wood panel to create a similar background, as it is not possible to find ready-made mat boards of that size. Nevertheless, he does not prefer making mat-board himself, as he states, this increases the labor time. The painted pieces are then permanently glued on the back panel. Therefore, it is not possible to take them out, and reuse them, if anything spills on the background.

To create long-lasting works, the parts are glued in a way that they never fall off. Finally, the pieces are plated with gold foil on the board (Figure 4.6). The longevity of the calligraphic wood engraving works depends on the type of wood and the condition of the place it is kept. When they are kept away from humidity, calligraphic wood engraving works can last hundreds of years.

As his works are comprised of works from the Quran, the waste materials, even the sawdust, are never thrown away because these are considered holy. He collects them in boxes and then burns in a stove. However, the waste materials which do not contain any words can be reused in different ways such as for making beaded curtains.

The craftsman uses a few technological tools such as electrical jigsaw and computer in the making process of calligraphic wood engraving craft. It seems that electrical jigsaw definitely speeds up the process in comparison to using a fret saw. Additionally, as it is still controlled by hands, such kind of technological intervention does not override the cutting process. In this sense, these technological tools apparently empower craftsman throughout the making process.

Figure 4.5: Rumi pattern cut out of wood decorating corners of an unfinished calligraphy work.

Figure 4.6: The making stages of a calligraphy board from left to right.

On the other hand, a laser cutting machine would completely replace the craftsman. The technological tools like CNC, laser cutter and 3D printer dramatically alter the nature of craft. Additionally, they necessitate hardly any knowledge and experience on materials (anything can be done in no time with any experience at all). Hand touch is also lost in a process that is heavily driven by these newly emerging technologies. Therefore, the craftsman strongly opposes to any tool that fully digitalize the craft making process. The craftsman points out the authenticity that distinguishes craft products and the lack of 'human touch' (Dormer, 1997) in mass produced objects in his words;

> "There is a unique logic in Arabic calligraphy art. Automated machines like CNC routers ruins it. Machines cannot understand this logic and catch up with the hand in precision. This precision is attained by years and years of practice. Master craftspeople can identify all the mistakes on works made by machines…What makes my work valuable is the labor and time invested in it. There is hardly any effort in works of machines. My works are unique. I cannot make exactly the same product the second time, it becomes different."

The craftsman emphasizes that the time and labor in that crafts making process make it more valuable or precious for the end-user, although she/he cannot identify that precision. He adds that he regards the works made by automated machines like CNC and laser cutters as mere commodities, as when it becomes common, it is not art anymore.

Materials

The main materials the craftsman uses are plywood and MDF (Medium Density Fiberboard). He supplies most of the wood-based material from *Siteler* area in Ankara, where small/medium scale manufacturers are clustered. Velvet covered plywood or solid wood panels or mat boards are used as background depending on the size of the work. Additionally, subsequent to completion, his works are framed in a local store.

The material range, including the frames, mat boards and the type of the wood material and paint, may vary according to the preferences of users. The craftsman tells that they generally opt for cheaper alternatives. For the frames, the cost can be reduced to half by choosing more lightweight materials.

As he tells, there is Far Eastern alternatives for the background panels. The price ranges from 15 Turkish liras up to 80-100 liras for the same material based on the quality. For some of the materials, especially for the background panels, there are no ready-made local substitutes, only the imported ones are available and can be used. However, by taking the capabilities of the craftsman and the workshop into consideration, it seems that the material range can be expanded. For example, for the background, plain wood material could be preferred instead of ready-made imported back panels. This way, the costs can be reduced and the labor time spent to cover back panel with fabric would be saved. Besides, various materials can be experimented in terms of presentation and framing, as well. By this means, more options for customization in terms of materials can be offered to the users. Displaying works without frames would be an option, too.

Additionally, to demonstrate the range of the craftsman's works and his abilities, a catalogue or alternatively a digital interface could also be developed for the users. It would act as a guideline to allow them to choose between materials and designs, which encourages personalization. However, despite various options for expanding product range and materials, the fact that the craft is very conservative in nature is a limitation for experimentation and adaptation.

Tools

Like a little wood workshop, there is every kind of tools to process wood, such as sanding machine, saw, fret saw, jigsaw, tweezers for small parts, paints, brushes. He did not make his own tools other than small clamps that he uses to cut little parts, because these are not sold anywhere.

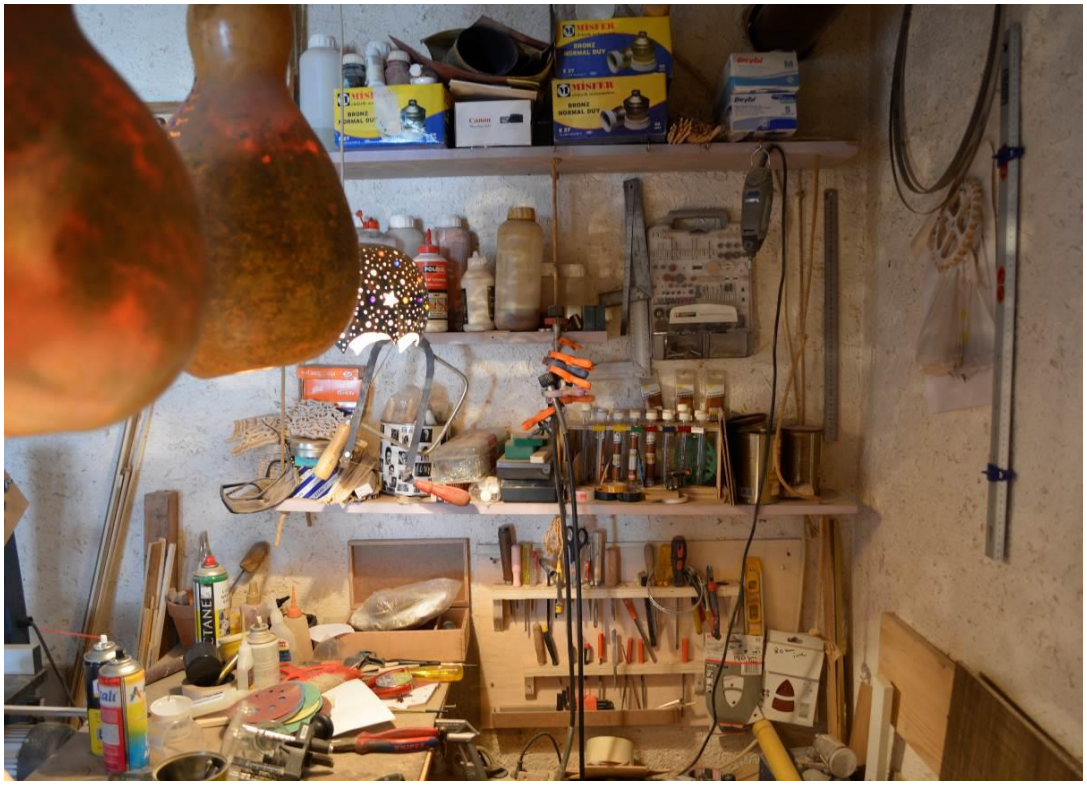

Figure 4.7: Some of the tools that the craftsman uses.

People Involved in the Making Process

He works alone in the workshop. His wife prepares the templates of the calligraphies on computer. Besides, they work together in the workshop only on the craft pieces that can be completed with two people. She also prepares the gold bronze pearl-dusted paint which they use for painting the calligraphy pieces. Additionally, there is a calligraphy artist whom he works together. He either gets the writings from him or from another artist.

There is also one apprentice who comes voluntarily to learn the craft. He could not constantly work with him in the workshop, though, as craftsman could not support him financially. He is taking currently Arabic calligraphy courses.

The craftsman says that he would like to have someone to work with him, to help him and to give him some ideas stating that it would improve his works. He emphasizes that the one who intends to learn a craft has to be aware of that mastering a craft is a hard and lengthy process.

Users

The craftsman is mostly focused on user-oriented production. On this base, he supplies customized works which respond to varying demands of the users. The products are adapted via face-to-face interaction and sharing of ideas between the user and craftsman. The calligraphic wood engraving panels in the workshop are samples for presenting to the visitors. The craftsman guides users through these works to give them an idea on material and product range as well as his craft skills.

He states that Arabic calligraphy has become fairly popular in the last five years, but the craft of calligraphic wood engraving is not known enough yet. Therefore, most of his users either know him beforehand or order after seeing his works in the workshop. His workshop, similar to the others stands as a small exhibition space to display some of his works. Besides, he takes orders from various art galleries. Many art galleries selling Islamic art pieces in Ankara order him special works.

He states that the majority of the users who buy his puzzles are foreign tourists. He thinks that the perspective of local people is quite different from that of tourists, as the locals view these puzzles as unfinished wood. Although, the transference and use of his skills to a range of products is promising, it might still be a challenge to appeal to some user groups, as they may have preconceptions on what a product should be (polished finishes) emerged from current consumption patterns, has also implications for the sustainability of products in terms of adapting materials and production processes.

Craft Products

The products that he can make are limited because of the current equipment in the workshop. Thus, he only focuses on the products that he is able to produce. Users sometimes request different kinds of commissioned works other than calligraphy, like wooden portraits, gourd lamps, and natural wooden puzzles for kids (Figure 4.1). His wood cutting skills are transferrable to a diverse range of products. As he mainly uses wood material, the products are quite long-lasting. The product life for the calligraphic wood engraving works is 50 years at minimum.

The making process of *naht* is influenced by religious principles that seem rather hard to change or transform. In the case of wood engraving, it seems that it is more important to preserve the craft as it is, because its story and the tradition behind it is valued as part of the final product.

Challenges and Opportunities for the Craft Practice

He is exempt from the commercial tax, because his occupation has been accepted as a traditional craft by the Ministry of Culture and Tourism, and he has been given the artist title for his craft. He states that the wage he earns is not enough to be able to carry on his occupation. There are some EU funds available for craftspeople. However, he cannot take on a full-scale EU funded project all by himself, as he has to keep the workshop open and continue production to sustain the workshop financially. Occasionally, the Ministry of Culture and Tourism organize some activities to promote Turkish-Islamic arts. However, he thinks that these efforts are not enough, because the artists do not earn anything financially. Besides, he needs a bigger workshop. The fact that the craft works are both made and exhibited in the same place poses a problem because of the lack of space. In the art mansion in Hamamönü, a restored historical site in Ulus district located close to the Castle, local craftspeople organize some activities at times. The municipality allocates a place to each of them in the mansion for a small fee. He states that there is currently no support by the municipality at all for the craftspeople in the Castle. He suggests that one of the several empty mansions in the Castle might be converted into an art mansion similar to the one in Hamamönü for the craftspeople working on Islamic arts like illuminators and calligraphy artists to work and collaborate in that environment. They could also run the cafeteria of the mansion, with the income from which the craftspeople could pay the bills. Moreover, the municipality might open courses for the selected crafts and train people. He adds that to be able to carry on this craft, there must be some support from the state and/or municipality, otherwise he cannot keep on any longer.

4.2 The Macramé Maker

On the morning of 10th of April 2016, I stepped into the craftsman's workshop for the interview as he agreed a week before. After I read the craftsman the information on the consent form, I requested from him to start a new piece of his work that would not take more than one hour to complete, as I would like to see the whole production process of macramé. He accepted and decided to make a flower pot holder because it was the convenient product he makes time-wise. In the meantime, I proceeded to asking the interview questions.

Features of the Craft

Macramé is a centuries old textile craft based on the knotting techniques which is made mostly by using hands. The history of macramé dates back to antique Egypt in 3000 BC. The artefacts have shown that Turks started to use macramé since about 850 BC. After settling in Anatolia, macramé craft was used in various textile items such as dresses, caftans and towels for utilitarian and decorative purposes.

There are primarily two types of knotting techniques namely 'square knots', based on tying the cords around itself, and 'hitches', referring to tying knots around a rod or pole. A wide variety of knots can be created using these basic techniques. The material range is almost limitless in macramé, any type of cords, yarns and ropes can be used while it is also possible to integrate with materials like beads and rings. Natural yarns have some advantages compared to the synthetic ones such as better hold for getting loose and textural quality. Furthermore, it can be applied onto fabric edges, around rings, poles and rods. As it is crucial to keep the cords tight when tying knots, some tools like macramé boards or cord hangers can be used during the making process (TC. MEB, El Sanatları Teknolojisi, 2011). Unfortunately, there are very limited resources on macramé craft in Turkey, especially regarding its current practice.

Knowledge and Experience of Craftsperson in Relation to the Features of the Craft

The craftsman has 32 years of experience on macramé craft. Prior to hammock making, he was selling stationery items in his shop. As his workshop is located in a touristic place, he started making hammocks by thinking that it might appeal to the tourists. He did not learn this craft through apprenticeship, though. His wife showed him how to make a macramé knot as she previously had learned macramé craft at high school. Building on this fragment of knowledge on the craft making process, he started doing basic hammock prototypes based on his ideas, and he has gained the necessary know-how through practice over several years. After selling his very first hammock, he foresaw that he could sell more, and decided to hold on with the craft. While getting better at making hammocks with trial and error, he started to expand his product range and began making macramé swings.

The Features of the Working Environment

He established his workshop at the site of the Ankara Castle due to the economic conditions of the time (Figure 4.8). The fact that the Castle is a touristic place encouraged him to keep on working with the craft and further develop it. As he states, if his workshop was located somewhere else, he probably would not have been able to sustain his craft, and had to opt for a different occupation. Economic, social and cultural conditions also have an impact on the sustainability of craft practices.

The craftsman stated that he did not get the chance to share tools and materials or collaborate with other craftspeople in the area in terms of work, because he does not use many tools, and when he needs them, he even makes his own tools. He is also the only hammock maker in the area.

Figure 4.8: The macramé shop at the site of the Ankara Castle.

Making Process

The craftsman starts making a hanging flower pot holder. Firstly, he uses a stainless aluminum wire to create a circular structural part in order to place the pot inside. By bending the wire with his hands, he makes a circle in preferred size.

Then, he prepares little balls from sisal yarn to easily wrap the yarn around the metal circle. He wraps the ring and finishes by tying a knot. After cutting some strings to a certain length, he hangs them with the help of carabineers at the end of chains hanging from the ceiling. The handle part is separated into three branches of strings each made up of four. After tying enough knots for the handle, he ties a final knot around the handle and completes this part of the pot holder.

He then starts to place the beads on the strings below the handle part. To keep them in place, he ties knots around beads. In the meantime, he constantly checks to make sure

that the strings are the same length. For this product, he ties a typical macramé knot by using four strings (Figure, 4.9).

During the making process, he occasionally adjusts the length of the chains hanging from the ceiling to be able to work easily. In the next step, he places and ties the wire circle, which he previously made, on the strings at a certain length. Then, he continues tying knots below the wire circle in a way to create a certain pattern, and also to make a part for placing the pot inside. Lastly, he ties the strings together at the bottom and completes the making of the pot holder. He cuts the excess strings (Figure 4.10).

Figure 4.9: The craftsman shows how to tie a typical macramé knot.

Based on my observations on the making process of macramé, the nature of the craft and the knotting technique seems well suited to be combined with different materials and parts which may be produced with flexible and cost-effective manufacturing technologies such as 3D printing, CNC milling and laser cutting. Since making the whole product out of macramé takes up too much time (e.g. more than 1 week for a garden swing), the craftsman states that he cannot keep up with bulk orders. Thus, instead the macramé parts might be integrated with mass-produced parts or adapted to different products with functional use such as a lighting unit with off-the-shelf structural and electronic parts.

By doing so, the making process might be more effective, which, in turn, would increase the production volume, reduce the costs while still keeping the human touch by the craftsperson. Moreover, the local production of the products or parts of them offers the users the opportunity of customization of products to better respond to their varying demands. Moreover, this craft has the potential to be applied to different kinds of products either to replace parts or to repair them, i.e. fixing a torn furniture with using macramé technique instead of replacing the whole upholstery. In this sense, halfway design (Fuad-Luke, 2009) might also be applied to macramé products.

Figure 4.10: Flower pot holder - finished product.

Materials

He uses only natural yarns in his products. He does not prefer synthetic yarn because it contains carcinogenic substances, and also stretches when exposed to the sun, which disrupts the comfort that the product provides. There are three types of yarns he uses namely; sisal, jut and cotton yarn. He gets the cotton yarns made in *Hatay*, the south-east city of Turkey, where yarn making is a common practice, and cotton, as the main source of material, is a locally abundant plant. However, jut yarn is a hemp (marijuana) variety which is illegal to grow in Turkey, while, the raw material of sisal yarn is not a local plant. Therefore, these yarns have to be imported.

Previously, he made yarn samples himself specifically for making hammocks and swings to show yarn producers in *Hatay*, and sourced these special yarns for his products. In some products, he also uses aluminum wires, which is supplied in local hardware stores, as structural parts. Additionally, he also uses pine wood, common beech, teakwood and alder used in the wooden parts of the hammocks. He makes hand drawings of these parts and customizes these parts according to the product type. Later, he gets them made in *Siteler*, an industrial production area in Ankara where mostly small-scale production wood workshops and producers are clustered. He prefers to use different types of woods based on their price, hardness and the product for which it is to be made.

Additionally, as the craftsman does not produce in high volume, he stocks all the materials in his workshop in small quantities. The Workshop is quite similar to the other cases in terms of stocking materials, making process, and exhibiting products (Figure 4.11).

Although, the craftsman has extensive knowledge on the materials (e.g. types of ropes, strings, and wooden parts) and knotting techniques that he learned through making, the material range seems limited. He only uses white ropes and certain types of woods. As an alternative, different ropes and colors might be experimented to offer more choices for personalization during one-to-one contact with the users.

Regarding the reuse and recycling of the materials, the craftsman explains that he gives away the cut-out parts of yarns to the people engaged in agriculture for them to tie growing seedlings. By doing so, these yarns, which are of completely natural materials, do not harm the environment when they fall on soil. This is such a nice example of reusing waste materials and thus sustainability. Apart from that, there is not much material loss in case of strings. Also, as he outsources wooden parts based on his needs, and he does not have any waste regarding wood material.

Figure 4.11: Materials in the workshop.

Tools

There are two types of tools that the craftsman uses, firstly, over the counter tools such as screwdrivers, pliers, rulers, carabineers and chains, and secondly, the tools he adapted according to his needs using these available tools such as the chains and carabineers which helps the craftsman adjust the height of the products and work comfortably. To work on his products, he mostly hangs them with the help of the carabineers at the end of chains hanging from the ceiling (Figure 4.12). As his workshop is quite small, he uses it in a versatile manner for working, showcasing and selling purposes, and utilizes the space vertically for effective use.

The metal feet of the swings are produced by CNC machines in *Siteler* along with the wooden parts. The parts are drawn in AutoCAD in the workshops in *Siteler*, based on the drawings of the craftsman and then transferred digitally to the CNC machines. He

has an extensive knowledge and experience on the thicknesses, strength and material properties (such as corrosion) of the materials of parts that he outsources, as well.

Figure 4.12: Chains and carabineers hanging from the ceiling of the workshop.

Participants in the Process

The craftsman works alone in his workshop. His wife sometimes works with him and makes net bags. However, the craftsman first prepares the handle part and adjusts the length of the yarn before giving it to his wife for her to complete the bag. The family collaboration is also quite common among crafts. He taught macramé to his daughter and son, but they do not work with him, as they do not see any future in this craft.

He expresses that he would like to have someone/an apprentice to work with him. He needs someone to leave his workshop and allocate time to research and develop his projects. Among the other craftspeople, he is the most experimental person. It seems that both the craftsman's personality and the flexible nature of macramé enables experimentation during the making processes. However, he did not get the chance to teach an apprentice so far, because he could not support anyone financially.

> "Of course, I would want (an apprentice), would not I? In order to develop my projects, I need to clear my mind. I need to close my workshop and allocate time and money for new designs... All of these and doing research depend on money, it is not easy. I should be able to put aside some money for home…I did not have the chance to train an apprentice due to financial constraints. I cannot afford an apprentice. There are many people who want to learn this craft, but I cannot offer them the opportunity."

For the empowerment and sustainability of the craft, the skills are needed to be passed on to the upcoming generations. However, macramé is a time-consuming craft and nowadays, most people might not prefer allocating all their time to it. Thus, the revitalization/spread of the craft might be promoted by passing the mastery to as many people as possible as a part-time occupation. Besides, considering the availability of tools and materials, the spread of craft skills and knowledge in contemporary culture might be encouraged through open-source digital platforms based on the maker and DIY movements.

Users

As the craftsman states, there is not any specific user group who prefer his products. Both foreign tourists and local people buy them. However, especially some of his products like hammocks might be advantageous for tourists as to being lightweight and easy to carry along.

Just a few users come for repair for their hammocks which he repairs for free. He makes his products intentionally in a way that they do not require any repair for a long time. As users buy and use these products, especially hammocks and swings, in distant holiday places, the craftsman states that they do not have the chance to bring the products for repair. Therefore, he guarantees product longevity. He says that durability is an important factor for gaining the trust of the users. Durability is an essential concern which has been shared in almost all of the craft cases. However, as the parts in macramé products are permanently attached together, it seems that their design does not allow for part replacement, instead mainly repairing and fixing are made when required.

Craft Products

As the craftsman is a creative person himself, instead of making the same kinds of products repeatedly, he is always in search for creative product ideas and new ways of making them. For example, a swing for disabled children is one of his novel projects (Figure 4.13). As he stated, he consulted a few physical therapists in a rehabilitation center for the disabled children in order to learn their problems and needs, and in accordance with the information he got from them, he developed an embracing swing so that the children can feel safe inside. He also makes various types of bespoke products. Safety nets for skiers, elevator shafts and construction sites, nets to be used in scenery for theatre plays, climbing ladders for cats, and a net for carrying mountain goats for a research project of agriculture students are some of his custom-made unique works.

Figure 4.13: A swing for the disabled children, one of the novel project of the craftsman.

Figure 4.14: Hammocks and swings displayed in the workshop.

Being one of the oldest local residents in the district, he is quite popular there. People either come to him to demand special customized works to see and buy his products in-site. There are even a few TV and newspaper have interviewed about his craft. He states that he used to put photos of his works on his website, however he removed them, since he thinks that they were copied. Although the craftsman appears to be willing to passing his craft knowledge on to the next generations, he has concerns about not sharing his works which seems to be a contradictory in itself.

His main products, however, are macramé hammocks and swings, which he makes every year (Figure 4.14). Apart from these, he makes small items like flower pots and net bags. In winter, he sometimes tries new products or develops the existing ones and launches them during the summer season.

The application area of macramé is quite wide (from hammock to jewelry). As the craftsman is open to communication, a flexible and practical person, he solves the problems of the users quickly. By using his skills, he can adapt to new demands and techniques and provide customized products for the users. His product range is formed

based on both his personal preferences, the demands of the users and the situation of the local market. It seems that to be able to sustain his craft, to a greater extent he has adapted it to the local socio-economic conditions.

During the interview, there was one user asking a part of macramé work to make a lampshade. As mentioned above, macramé holds a great potential for repair and for combining with different materials and/or products. However, due to the space constraints, the craft works displayed in the workshop are limited to only hammocks, swings, net bags, pot holders and bottle coverings. Therefore, it is important to exhibit the full potential of macramé for integrating with different kinds of products. Furthermore, a product made of entirely macramé might not appeal to every user's taste. In this sense, presenting the abilities of the craftsman with different types of products might be advantageous to be able reflect the potentials of the craft.

Moreover, as the net bag is one of the items in the craftsman's product range, they can be sold in supermarkets or local organic markets as market bags. Regarding the environmental impacts of plastic grocery bags and the contemporary shift to biodegradable bags, such market nets hold many potentials in terms of durability and long life-span.

Comments and Suggestions

Hence his workshop is fairly small, he sometimes has to work at home for big projects such as safety nets for elevator shafts and construction sites. Thus, he needs a bigger workshop. As stated by him, a wood workshop and a separate place for the production would be better, as it causes problems to produce and sell in the same place.

One of the craftsman's biggest complaints is that he thinks that he does not receive much appreciation of his work. He finds the attitude of some of the users visiting his workshop regarding craft products may be disrespectful. He states that foreign tourists approach differently towards his products. They appreciate what he does. In fact, the Ministry of Culture and Tourism offers a tax reduction for the traditional hand crafts. However, he says that he has been rejected from the tax reduction by the Ministry as his craft is not considered a traditional craft.

> "I wanted to benefit from the craftsman tax reduction. I applied to the Culture and Tourism Ministry for that. To better express my craftsmanship and my works, I copied them on a CD. I even acquired the necessary document about fine arts from the Copyrights Directorate. However, they brushed me off without listening to me by asserting that it is not a traditional Turkish craft. They stand in my way, I cannot train any apprentice. They regard macramé craft only as simple pot holders."

Regarding the empowerment of his craft, the craftsman actually proposes a business model. He is committed to teach his craft to the students in vocational schools, inmates and/or in courses related to the municipality. In case of bulk orders in numbers exceeding his production volume, it is not possible for him to make it all by himself due to the length of the making process by one person. Nevertheless, if he teaches the craft to the inmates, he says then it would be possible keep up with the bulk orders as the production capacity would increase a lot. In the meantime, teaching craft skills to these people would increase their chance of employment. He adds that organization of such a training system would not cost much because of the availability of tools and materials. Besides, in this manner, the transference of craft knowledge and skills to new generations would be achieved more effectively.

4.3 The Basket Weavers

After my interview with the hammock maker, I visited basket weaver family in their home. They stated that I was welcome to come and ask anything; however, they ran short of basket weaving material at the time. By telling that they first had to gather material, the craftspeople gave me an appointment on the 3rd of May.

When I visited the family on that day, the craftswoman was cleaning off the raw materials, which they recently collected to prepare for the weaving process. As I did not want to interrupt her, and also wished to observe this stage as well, after reading the craftswoman the information on the consent form, I asked the interview questions and recorded a video while she was preparing the material. As finishing the questions after around forty minutes, although I hesitated to disturb them several times in their home, I explained the craftswoman that I need to observe the making process of baskets as well and requested from her a second date for the interview. She kindly accepted to participate in the second interview and we made another appointment on the 24th of May, when they would already start with the making process to complete the orders for the basketry shop located in the Castle.

On the 24th of May, the craftswoman was present at home at the time of my visit. She started to make a new piece which can be completed in an hour or so, so that I could observe the whole production process of a basket. She agreed and started making a small version of their typical picnic basket. Later, her husband, who is also a basket weaver craftsman, joined her, and again I also video-recorded the whole making process while asking them more questions about the production of baskets to gain a full understanding of the craft.

Features of the Craft

Basket weaving is one of the oldest craft techniques known to man (Neziroglu, 2007), which is assumed to be inspired by bird nests. The materials and making methods show great variation in this craft based on the place and culture in which it is practiced. A range of fibrous and flexible materials are used including plant fibers, tree roots and barks and pine straws differing based on climatic conditions and vegetation. Addressing numerous cultural and functional needs throughout the history, baskets are

used for carrying, storing, measuring, and shelter making purposes, and also in religious and burial rituals with symbolic meanings (Neziroglu, 2007).

Basket Weaving Craft in Turkey

Since the early periods of history, it is possible to encounter archaeological finds on basket weaving craft in many cultures in the world. The history of this craft in Anatolia dates back to approximately ten thousand years ago. The first archeological finds in Çatalhöyük excavations, which belong to Neolithic period, show that basket products were an essential part of everyday practice (Neziroglu, 2007). The materials and making methods in basket weaving in Anatolia vary according to the place, as to being essentially made from raw materials based on local plants and fulfilling various functions in diverse cultural contexts. By using different techniques of weaving, a wide range of products including fish containers, bird cages, scale pans, saddle bags, hats, sunshades and prayer rugs as well as baskets were made for everyday use with agricultural, storing, measuring and carrying purposes (Neziroglu, 2007). Although basket weaving is a shrinking practice today all over Turkey, it still keeps its social and economic relevance mostly in Konya, Kastamonu, Kocaeli, Trabzon, Rize, Edirne and Kırklareli (Neziroglu, 2007). Raw materials vary depending on local vegetation, whereas, production methods have common characteristics in these different regions. The most widespread technique employed in basket weaving craft is based on forming a base part by placing dampened straws in 90-degree angle against each other, then building upper part by sticking thinner straws vertically in the base part and weaving horizontally between vertical straws (Neziroglu, 2007).

Additionally, the fact that the interviewed basket weavers migrated from Çanakkale, Aegean province of Turkey, to the inner Castle years ago, explain why they chose to be engaged in this craft as a generational practice. As it requires a few tools, and can be applied to various materials, basket weaving craft is a common production for many families.

Knowledge and Experience of Craftsperson in Relation to the Features of the Craft

The craftswoman weaves baskets together with her husband. As she emphasized, her father was a basket weaver as well, since it was the main income source of her family. However, she was not used to be engaged in this craft back in her youth, instead she learnt basket making from her husband after they got married, and has kept making it for 30 years. Basket weaving is their only source of income.

The Features of the Working Environment

The family does not own any workshop. They work at home and sell their products to the basket shops at the site of Ankara Castle (Figure 4.15). When they first settled in the inner castle, they showed their basket samples to the owners of basket shops in that district in order to exhibit their craft skills. After their products started to be sold in these shops, and the sales have increased in time, other immigrant families in the Castle also started making baskets.

The craftswoman states that previously, there were seven basketry shops at the area. However, now, there are only two of them left. As the basket shops were closed one by one, families also quitted making baskets. There are now just two families (i.e. the craftswoman and her husband, and her stepbrother with his family) left out of fifteen still continuing weaving baskets.

Figure 4.15: Basketry shop at the site of the Ankara Castle.

The family makes baskets for one of the two basketry shops in the area. Beforehand, these shops used to sell only handmade baskets. However, due to the economic developments on the global scale and the spread of cheap goods imported from Far East, the shopkeepers have begun to import products instead of opting for local production.

> "They (the basketry shops) both sell imported Chinese products and our baskets. Previously, there were only handmade baskets. There were no imported baskets back then. Handmade baskets used to be selling well. After Chinese products became widespread, the demand for our baskets has decreased. In turn, basket weavers have quitted this craft."

She adds that a few years ago, they opened their own workshop; however, as they could not keep up with the costs, and consequently, they had to close it. As they work at home somehow separated from other workshops and their craft does not necessitate many tools, they generally do not need to share any materials and tools with the other craftspeople at the Castle area.

Making Process

The craftspeople use a plant namely wild willow or osier willow [*sorgun*] as the main material. They use the branches of this tree. Thin ones are named as strands [*çubuk*] and the thick ones are stakes [*kamış*]. The raw material first goes through a preparation stage in order to be used in the weaving process. In this stage, the craftspeople scrape off the branches with the help of a tool which they made by bending an iron construction wire (Figure 4.16). Then, they dry them out in open air.

Figure 4.16: The cleaning off of the material using an iron construction wire.

Figure 4.17: (*left*) Scraped off branches; (*right*) the material preparation process.

For about one hour before they start weaving, they dampen the peeled branches to bend them easily. Otherwise, the branches become brittle which makes the weaving process impossible.

If they wet the material, they need to use it quickly because if they keep them wet, the branches get moldy as quick as two or three days. Therefore, they keep the peeled branches in a dry place by covering them until next use. By doing so, the material stands for a long time without deteriorating. On the other hand, the unpeeled branches in black color have to be used soon after they are chopped. Unless they weave them, they dry out in 7-10 days, become brittle and cannot be dampened anymore. Therefore, they try to scrape off all the branches at once as much as they can (Figure 4.17). After the preparation stage, they divide some of thick branches into thinner parts using a tool named juniper [*ardıç*] for weaving and undivided thick stakes are set aside for making the bottom parts of the baskets (Figure 4.18).

The craftswoman starts the making a small picnic basket by first preparing the bottom part. She utilizes a method called stake and strand (Neziroglu, 2007) in which two sets of elements; rigid stakes and spokes are used. Rigid stakes as a set of passive warp elements are added by sticking into the gaps between materials on the base part vertically to create a warp. Then, spokes as more pliable elements are woven over and under the warp structure horizontally forming a weft. After the body of the basket of completed in this manner, extra parts such as handles, caps and joining details can be added on to the basket (Neziroglu, 2007).

Figure 4.18: Bottom parts of the baskets which are prepared using stakes.

During this process, the craftswoman uses materials that she cleaned and prepared previously (Figure 4.19). However, when she needs more of thin strands, she uses a tool namely swath [*tırpan*] to cut the ends of the material and with another tool namely juniper [*ardıç*], she divides thick strands into thinner parts. While the craftswoman weaves the small basket for the interview, her husband makes a nuts basket for an order from the basketry shop, and after some time he takes over the making of the small basket. Once she weaves the basket up until to the desired height, she weaves the straws horizontally at the top to finish the body of the basket and adds a handle. Lastly, she cuts the excess material with a pruner. They do not use any paint or lacquer on their baskets (Figure 4.20). The material that is dampened to be more pliable during the weaving process, dries in time through which the color of the final product changes a little bit. As the craftswoman states, the fact that the branches of osier willow are not very flexible is a limitation for making some products which require dense weaving. Therefore, more pliable materials, such as fibrous plants, can be introduced into the weaving process to extend the product range using the same techniques.

Figure 4.19: The making process of the basket.

This production method is quite quick and flexible. They state that the hardest part of the making of a basket is its bottom part. If this part is ready, they quickly weave the body on top of it. Thus, with the orders they receive, they first try to complete bottom parts to speed up the making process.

Figure 4.20: Finished basket.

Materials

The craftspeople use the branches of the osier willow tree for basket weaving based on the vegetation. Osier willow is normally a locally grown plant in Ankara; however, it is about to become extinct in this area because of the constant invasion of its natural habitat. They locally source and clean up the raw material themselves to prepare it for the weaving process.

Previously, they sourced the material in Kızılcahamam and Kazan districts in Ankara, where the plant is abundant along streams. Nevertheless, they now have to drive to as far as Karabük (i.e. located in the northern region of Turkey, approximately 160 km away from Ankara) in order to gather the material.

Based on their statements, it can be understood that gathering material is a troublesome process as much as finding it. As it grows along stream sides in swamp like areas, this process requires heavy physical labor. A while ago when the material was locally abundant, there were a lot of families who were engaged in the basket weaving practice. As a communal activity in summer season, these families used to gather the material and camp along streams together while cleaning the branches up for use.

Since basket weaving craft is still a common practice and the material is abundant in Aydın area, it is possible to buy prepared material by weight from there. However, instead of buying, they prefer gathering it themselves to cut the expenses for sourcing.

As they work on demand, they drive to gather the material when they receive any bulk order. They usually gather material during summer season. They stay there for two to three days, and bring back the material to their home by their car and stock it in their garden (Figure 4.21).

Although, the material is normally sourced from a locally grown plant, the difficulties in sourcing locally pose a big problem for craftspeople. In addition to accessibility issues, collecting and processing the material is a tiresome process.

Figure 4.21: Materials stocked in the garden.

Tools

Basket weaving craft requires just a few tools, it is mostly done by hands. The tools that the craftspeople use are as follows; an ordinary pruner, a hook-like sharp tool named swath [*tırpan*] which is used to cut off the branches, a knife, a scraping tool which they made themselves by bending iron construction wire, a measuring tape, and juniper [*ardıç*] which is used to divide thick canes into thinner straws (Figure 4.22). Swath [*tırpan*] and juniper [*ardıç*] are traditional tools used in basket weaving craft which are first invented by their predecessors who are also master craftspeople.

Figure 4.22: (*left*) Juniper [*ardıç*] tool; (*right*) consecutively, a pruner, a bent iron construction wire and swath [*tırpan*] tool.

Participants in the Process

The craftswoman works together with her husband. Although, they taught the craft to their older son, their other two children did not learn the craft. They state that due to the fact that it is a low-pay occupation, their children did not want to get engaged in this craft as a career option.

In their case, it seems that working at home limits the possibility of apprenticeship and the accessibility of their craft to a wider audience. The craftspeople told me that previously, a few young students from the nearby vocational schools requested to learn basket weaving craft for their school projects and it was the only time they teach their craft someone outside the family.

Craft Products and Users

As previously mentioned, the craftspeople make baskets on demand from the basketry shop, which they work for. In this sense, their range of product is determined by the order they receive. Their usual products are mostly nuts, grain and bread baskets for grocery stores. Their size ranges between 40-50 or 60 cm in width.

If a different type of product (e.g. lampshade Figure 4.23) is requested; however, the craftswoman describes the change in the making process in her words as follows;

> "When we receive an order that we did not make before, he (the shop owner) would tell us how it should look. We make some samples as he describes. If he approves the samples, then he tells how many products will be made. It happens so."

This process shows that the craftspeople can adapt to new demands through using their traditional skills and applying their tacit knowledge to the making of customized products. Nevertheless, they tell that they seldom take orders for which they need to try out and develop new structures. Therefore, the product range is limited to grocery store baskets. Considering the adaptability of craftspeople to changing demands, new templates can be designed to expand their product range along with the ways of communicating these templates to them.

Figure 4.23: (*left*) A lampshade; (*right*) craftspeople's products in the shop together with Far Eastern baskets.

Previously, engagement or henna baskets were common products which are used in wedding ceremonies in Ankara. They used to sell up to 2000-3000 of these baskets in a year. However, as the cheap plastic substitutes became prevalent in the market, the demand for the handmade baskets drastically reduced. Similarly, before the spread of imported Far Eastern Christmas baskets, they stated that they used to sell up to 3000 baskets during the New Year's Eve. Nevertheless, now, they can hardly sell 100 Christmas baskets in the same season. Based on this finding, rather than generic baskets imported from Far East, more customized locally relevant baskets can be designed and made while exploring new areas such as bazaars to identify local needs and preferences.

As they do not sell their products directly to the users, they do not have much information on which group of users prefer which product. Therefore, it seems that to a search for potential areas and user groups is needed to discover the current demands for developing new products.

4.4 The Coppersmith I

On the 4th of June 2016, I revisited the Castle area with the intention to schedule an appointment with a coppersmith who volunteered for the interview. I intentionally wanted to visit the coppersmith workshops that I previously could not on the initial exploration phase to be able to identify the most accessible and appropriate case for the purpose of the research. In search of the coppersmiths still continuing the hand production, I entered three workshops on that day. Two of the craftsmen stated that they produce by hand while in the last one, I found out that only ready-made copper items are sold.

Among all the coppersmith workshops I initially visited, one stood out in terms of the artistry and originality of the work. The craftsman was making improvisational engravings on copper surface creating either certain repetitive patterns or a composition as a whole, unlike other coppersmiths who mainly make surface embellishments on copper items. At the time of my visit, he was working on an elaborate war scene on a copper plate. Although his works, mostly reliefs and copper jewelry, seemed rather two dimensional in the first place, unique craft touch added by the craftsman was impressive. For this reason, I decided to include the craftsman in the research.

I briefly informed him about the research, he willingly accepted to participate and gave me an appointment for the interview on the 15th of June 2016 along with his contact number to remind him the day before.

On the interview day, after asking him to start a new piece of work from scratch in order to observe the whole making process - not just the surface engraving part - he agreed and started making a copper bracelet, as I proceeded the interview and observation phases.

The Features of the Craft

Metal working is one of the foremost crafts in which Turks have been known to be engaged. In the excavations, numerous archeological artefacts on metal craft belonging

to both pre-Islamic and Islamic periods have been found (Bezirci, 2001, as cited in, Kaya, 2010).

The roots of coppersmithing in Anatolia, date back to ten thousand years ago. The artefacts found in Çatalhöyük mound in central Anatolia have shown that copper is obtained through treating copper ores, and this material is then used in the making of various products and tools (Bezirci, 2001, as cited in, Kaya, 2010).

According to the Mineral Research and Exploration Institute, Anatolia is very rich in terms of copper deposits housing today to approximately 500 copper ore deposits (Kayaoğlu, 1985, as cited in, Kaya, 2010).

Although coppersmithing craft in Turkey has diminished over time, today it is still practiced in Istanbul, Ankara, Çorum, Kahramanmaraş, Gaziantep, Erzincan, Tokat and Diyarbakır provinces (Arlı, 1984, as cited in, Kaya, 2010).

There are a number of techniques employed in coppersmithing. For example, the making of wrought iron is based on the hammering of sheet copper on planishing stakes into the desired shape. In this process, sheet copper material is used which is acquired though processing raw copper ores in copper factories (Yıldırım, 2005). The coppersmiths either order this material in desired size or buy in standard sizes mostly in circular forms.

During the hammering process, copper material stiffens and loses its malleability in time. In order to overcome this stiffening which hinders the forming of copper, a technique called ‘annealing’ is used. In annealing process, the metal is heat-processed to return it to its previous soft and malleable condition. Based on the depth of the product, annealing might be repeated a few times on an object (Yıldırım, 2005). However, during this process it is important not to exceed the melting temperature of copper.

After shaping copper into a three-dimensional form, the surface embellishment can be applied using the techniques namely chasing and repousse [*kabartma*], engraving [*kazıma*] and openwork [*ajur*] (Belli & Kayaoğlu, 1999, as cited in, Yıldırım, 2005).

The craftsman in this case uses the technique chasing and repousse. In this technique, chasing refers to the hammering of copper sheet from the front/viewable side to push it down, while in repousse it is worked from the reverse side by pushing it out. It is applied for creating relief on sheet metal using steel chisel tools and hammers. The pressure is applied onto copper by these tools to create indentations on the surface. The copper is pushed incrementally into the shape on a planishing stake. This technique is employed for either embellishing the surfaces of copper hollowware or creating relief works on sheet material (Yıldırım, 2005).

Knowledge and Experience of Craftsperson in Relation to the Features of the Craft

The craftsman learnt coppersmithing through apprenticing to his father at a young age. With him, they started to make gift items made of copper for tourists in the 1960's. Since then, he has 35-40 years of craft experience.

The Features of the Working Environment

As his father's coppersmith workshop was at the site of Ankara Castle area, he preferred continuing to work here. As most of the other workshops in the area, his workshop is fairly small (Figure 4.24). Since, he uses a few tools and often sits at one spot as working, it appears that the making process of coppersmithing does not require much space in the workshop. Unlike other craftspeople whom I interviewed, he does not consider the Castle as a touristic place, as he states that the number of tourists visiting is quite few.

Figure 4.24: The coppersmith workshop at the site of the Ankara Castle.

As a local craftsman working in the area nearly for 40 years, he has also witnessed the socio-economic transformation of the area. Based on his experience, he states that 40-50 years ago, the Castle was the city center of Ankara. Local people used to supply all their everyday products from this area. Therefore, a variety of craftspeople (e.g. leather men and shoe makers) were located in the Castle area back then. However, as the center of the city has shifted gradually, the Castle and its surrounding area have lost their charm over time, subsequently leading to a decrease in the number and variety of local crafts people.

All of the craftspeople in the Coppersmiths Bazaar are his acquaintances, however, as he does not produce in large volumes, he does not often need to share materials and tools or cooperate with the other craftspeople at the Castle area. As stated by him, he is better at drawing than most of the coppersmiths in the Bazaar thus, he generally helps them in terms of creating patterns.

The Making Process

He starts making the copper bracelet by cutting a copper pipe which is normally used in air conditioning systems, in a certain length with an iron cutter. The craftsman uses the technique called ‘chasing and repousse’ which is mentioned before. Before beginning with the chasing technique, he flattens the copper pipe with a wood mallet. As the wood mallet is softer than a hammer, it does not leave any marks on the surface of the material as opposed to an iron mallet. He slightly finishes the surface of the copper with sandpaper. Then, he marks the borders of the planned area for the patterns with a steel chisel tool. After he decides what type of pattern to make (i.e. a bird pattern in this case), he starts chasing copper without any prior drawing on the sheet. He works on the patters and the composition via improvisation on copper without any prior drawing or preparation at the beginning. Generally, in copper chasing, the drawing which will be chased on the sheet copper is first transferred onto the surface by tracing over a carbon paper (Figure 4.25).

He utilizes hammers in different weights varying according to the precision of the pattern to tap on the steel chisel tool. He starts creating the pattern with a 300-gram hammer. He states that a 100 or 150-gram hammer can also be used for this type of small figures. He hammers the sheet metal against a planishing stake that mounted on a log (Figure 4.26).

Figure 4.25: A sample pattern drawing from the archive of the craftsman.

Figure 4.26: Two planishing stakes mounted on logs.

When working with the chisel tools, he first defines the outlines of the figures. Then, he goes on with adding the details like feathers, eyes and wings (Figure 4.27). He accentuates the gaps between figures to emphasize them more. He chases over the pattern again to make it more intense.

Figure 4.27: (*left*) The craftsman using a steel chisel and hammer; (*right*) close-up of an elaborate relief work.

He corrects little mistakes on the pattern, if there is any, with a couple hammer strikes. However, he states that he does not usually need to do so, because he does not have a fixed design in the first place, and alters the design via improvisation. After completing chasing the pattern on copper, he lastly paints it with black acrylic. When he wipes the paint off, the paint stays in the indentations made by steel chisels so that the pattern comes out. He generally uses oil paint, glass paint or powder paint. After the painting process is finished and the paint is dried, he lacquers the product using cellulosic varnish both to cut its contact with air, and to prevent paint from smudging (Figure 4.28).

Figure 4.28: Finished copper bracelet.

As an alternative to lacquering, tin foiling is commonly used in copper products. Although, the craftsman does not apply this method himself, he briefly informs me about the tin foiling process. The product that will be coated is firstly hammered in order to fix any warped part. Then the product is heated in fire. At a certain temperature, ammonium chloride or sal ammoniac (the gas produced from which is highly toxic) is poured onto its surface to prepare the metal to be tin foiled. This chemical cleans the surface of the metal by reacting with it. During this process, a volatile metal chloride which is a highly toxic gas is formed (Nugentec, n.d.). Afterwards, the tin is applied and evenly distributed over the surface with the help of a cotton ball. The craftsman tells that tin foiling process extends the lifespan of the product by preventing its exposure to the oxygen in the air. It is also required in order to prevent any poisoning for humans caused by copper corrosion (especially on kitchenware). When tin foiling is applied, it gives copper a greyish color (Figure 4.28). However, as the materials used both in lacquering and tin foiling processes contain toxic and carcinogenic substances which have harmful environmental impacts, these can be replaced with alternative coating methods and materials with the advancements in material technologies (Bafna, 2007). He states that he does not make any hollowware, tin plating or annealing. He mostly makes copper reliefs and jewelry (e.g.

earrings, bracelet, and necklace) (Figure 4.29). As most of the coppersmiths at that site, he mainly focuses on surface ornamentation.

Figure 4.29: Some of the bracelets in the coppersmith's workshop.

However, he thinks that tin foiling and making hollowware are easier processes compared to what he does. He regards his own works as more elaborate in terms of precision and creativity involved in the work. However, I think that hand production allows for personal expression and reflects the creativity of the maker at all stages of production.

Although he does not prefer making hollowware, he is also knowledgeable about its making process, as well. As emphasized by him, coppersmithing is a more common practice in Gaziantep compared to Ankara. Another chasing method which is common in this area, as he explains, is called engraving [*kazıma*]. In this method, the pattern is engraved onto the surface (Figure 4.30). He informs me that copper and repousse, and

engraving techniques are accepted branches of coppersmithing among traditional Turkish crafts by the Culture and Tourism ministry.

Figure 4.30: Tin foiled serving plates.

Figure 4.31: Works made with the engraving technique.

Considering the making process and the type of works the craftsman makes, I think that the most remarkable reason that users generally call on the craftsman is to ask for customized products. That is, based on the exemplary works that he previously made on demand, personalization is highly requested among users. However, making big

size relief works is a highly elaborate process and takes up too much time. On the other hand, smaller products like bracelets can be produced and sold much quicker. Therefore, limiting the size of the ornamented area on a copper product or integrating one piece of ornamented copper with such as laser cut woods or materials like half-way products could be more effective in terms of time and labor while still adding the human touch by the craftsman.

Besides, it seems that an online product platform that can guide the users during the customization process could be useful. As the craft products are limited to the ones that exist in the workshop at the time and does not exhibit all the products that the craftsman is capable of making, this might help them better shape products to their needs and show them the whole product range.

The Materials

Copper is not a locally-sourced material in Ankara. The sheet copper material which is called leaf [*yaprak*] or [*hadde*], is shipped in standard sizes from factories that are located in in Çorum, Samsun, Trabzon, Kahramanmaraş and Gaziantep to be transported to the stores all over Turkey. Sheet copper is sold in coppersmith workshops here in Ankara. As the craftsman does not produce in high volume, he supplies the source material from these workshops (Figure 4.32).

The craftsman uses these sheets, and also copper pipes in different sizes for his works. With exactly the same craft processes, brass (%70 copper, %30 zinc alloy) and bronze (%90 copper, %10 tin alloy) can also be worked. There are brass and bronze works in the workshop, as well. However, as stated by him, these are alloys, their scrap cannot be recycled. On the other hand, pure copper products can be melted and mixed with copper ore. When this mixture cools off, it takes the form of ingot copper. Afterwards, it is reprocessed into sheet material in factories by thinning and cutting processes.

Figure 4.32: (*left*) Copper sheets; (*right*) copper pipe.

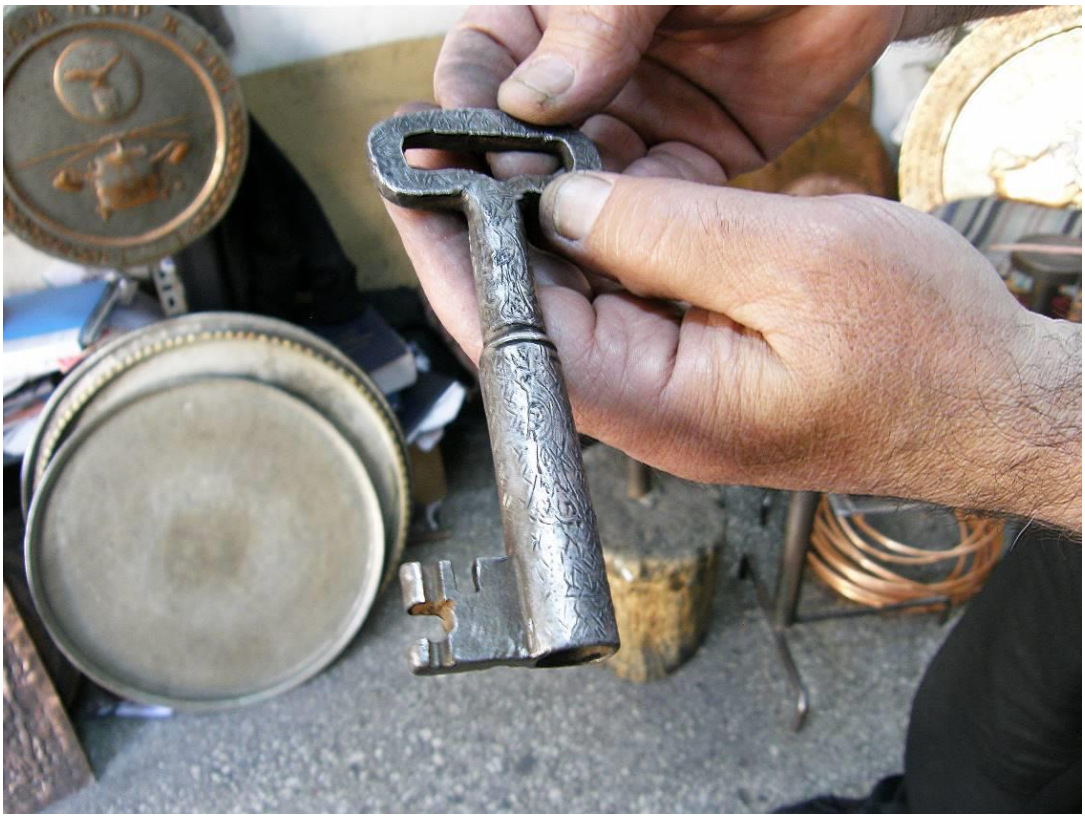

Figure 4.33: An old key on which the craftsman applied surface embellishment by using the engraving technique.

The craftsman has also experience on different materials such as leather, bone, wood and other metals. He shows me work samples that he applied surface ornamentation through transferring his craft skills (Figure 4.33). As told by him, he also made gold and silver jewelry in the past.

The waste material can be sold to coppersmiths or directly to the copper factories for recycling. However, the ways he utilizes the materials result in the generation of little or no waste.

The Tools

The main instruments that the craftsman uses for the chasing process are steel chisels with different shaped edges which are utilized for pushing the sheet copper around by tapping on the tool with a hammer (Figure 4.34). By doing so, the texture at the end of the tool is transferred onto the surface of the metal. He makes his own sets of chasing tools to produce a variety of surface effects. Steel chisels are made by shaping on a grinder. If hot forming is needed, they are heated over blacksmith's fire and their ends are formed into the desired shape. These are not readily available tools that can be found in any hardware store. Thus, experienced coppersmiths make their own sets of chasing and repousse tools. What these craftspeople actually do is to personalize their tools to meet their preferences. Therefore, I think these tool sets could be re-designed to be used by potential users/makers, so that they may actually use these personalized tools to create their own patterns on copper items to customize their products.

Additionally, hammers in different weights, a planishing stake, a multipurpose stool named 'the apprentice', an iron compass for drawing circles on copper and an iron cutter are the other tools that he uses in the making process. An 'iron apprentice' (Figure 4.35) is a stool like tool which is used to hold the sheet copper, and also the tool containers during the chasing process. Planishing stake, on the other hand, is a tool which is mounted in a log and the sheet copper is hammered against it. The shape of the top part of this tool, which is produced on a lathe, varies according to the form of the part that is to be made.

Figure 4.34: Various steel chisels.

Figure 4.35: An iron apprentice.

The Participants in the Process

The craftsman taught his son this craft skill, but this is not his main occupation. He comes and works on weekends and holidays. He has trained 15 people up to now. He had apprentices approximately 25 years ago. However, he has none currently. Besides, people who want to learn this craft as an amateur activity also come to his workshop occasionally. However, the craftsman is not very keen on training anybody, as he thinks that he does not have enough space, tools and time for this, which is a limitation on revitalizing and sustaining these skills. Additionally, he states that talent is crucial for anybody who wants to reach the level of his works. He regards the copper products made in public courses as amateur works. He further explains that if more people occupy with this craft, it would be automatically regarded as less valuable. His opinion on the spreading of the craft appears to be another limitation for the transference of craft knowledge and skills.

Being one of the oldest local craftsman in the Castle area, he attracts the attention of amateur makers and TV channels. He has appeared on a number of documentary shootings, the most noticeable of which is named Masters Defying Time [*Çağa Direnen Ustalar*] on TRT. By these means, his craft skills are displayed to a wider audience.

The Craft Products and Users

He generally makes custom-made orders; logos for the forces, municipalities or firms, and gift items for special occasions (Figure 4.36). As stated by him, there is a certain user group who knows him well. They usually explain the craftsman their needs, and he guides them through his previous works in the workshop. Customized works such as gifts for special occasions, logos or one of a kind relief compositions are preferred by the users particularly because they are unique.

Rather than old-fashioned water cans and copper vessels that are not generally preferred, as emphasized by him, he chooses to make more appealing products like relief works and jewelry. Copper kitchenware is not favored as much compared to 30-40 years ago. Copperware which is still being used in restaurants and homes like pans and Turkish coffee pots are produced mostly in Gaziantep and Kahramanmaraş.

Figure 4.36: Some of the bespoke relief works in the coppersmith's workshop.

The craftsman does not make any repair. For the decorative products he mostly makes, there is no need for repair. However, users occasionally ask for repair for their copper items. The craftsman showed me a copper pan lid that he made over a user's request for his frying pan (Figure 4.37). However, if anyone asks for repair, most of the time he recommends other coppersmiths in the area. Even repair and maintaining are not favorable from his perspective.

Figure 4.37: A copper lid for a mass-produced frying pan made by the craftsman on demand.

4.5 The Coppersmith II

Although the improvisational nature of works of the first coppersmith whom I interviewed was very interesting, in order to develop a holistic understanding of its making, I wanted to see other production processes of copper like annealing and tin foiling. The coppersmiths in the bazaar directed me to a craftsman who produces the crescent and the star on top of mosque minarets, domes and mihrabs. However, as his workshop was closed for quite some time, I could not have the chance to talk to the craftsman during my visits to the Castle area several times. Therefore, I decided to visit one of the workshops I stopped by in the initial exploration phase. The craftsman in this workshop was making surface embellishment on copper products but his works seemed quite similar to the ones in almost every coppersmith's workshop. I thought that I could observe and compare the approaches of the two craftsmen to the processes, who seemingly applies more or less the same techniques. For this purpose, I stepped into the workshop and requested permission for an interview from the craftsman. By stating that he was less busy on the weekends, he gave me an appointment on 16th of August 2016. However, when I revisited the craftsman on that date, he wanted to keep the interview quite short. I rushed to ask interview questions and finished it in half an hour. Thus, I was able to see only a fraction of his making process.

Knowledge and Experience of Craftsperson in Relation to the Features of the Craft

After his father directed him to vocational training in a coppersmith workshop as he did not want to continue his education, he has gone through an apprenticeship period of eight years (three years as apprentice, five years as foreman) in the Coppersmiths Bazaar until becoming a master craftsman. He has now approximately 47 years of experience in coppersmithing craft.

The Features of the Working Environment

As the craftsman has spent his apprenticeship in the Coppersmiths Bazaar, he knows this area quite well. Therefore, he preferred establishing his workshop here. Today, he has two workshops, one that he showcases his works and make surface

embellishment/chasing on copper items (Figure 4.38), and the other in which he makes polishing, tin foiling, and nickel and silver plating.

As Coppersmiths Bazaar is the only place in Ankara where coppersmiths and tin foiling masters are clustered, he thinks that this area is more suitable for a workshop. He states that he shares a lot with the other coppersmiths in the bazaar in terms of work, materials and tools. Thus, collaboration of the crafts in that area appears to be significant.

Figure 4.38: Inside the workshop.

Making Process

The craftsman first takes out a toolset which is comprised of a planishing stake mounted on a log, a steel hammer and steel chisel tools placed on the log (Figure 4.39). He sits on a stool in front of the toolset, places an old copper bowl for a drink made of yoghurt and water [*ayran*] on the planishing stake and starts making surface embellishment on its surface (Figure 4.40). He uses the same technique, which is called chasing, as the first coppersmith. He applies pressure onto copper by tapping on steel chisels using a hammer to create a relief on the product's surface. He pushes the metal incrementally with many hammer strikes into the shape. By doing so, he transfers the shapes on the edges of chisels onto the copper surface. So as to stiffen the copper, he

hammers the surfaces on which he does not want any pattern without using chisel tools. He only applies surface embellishment on the existing copper products. As compared to the case of the first coppersmith, this is a more traditional type of application.

He does not prefer making products from scratch by annealing sheet copper, as he thinks that it is a highly labor-intensive process as opposed to chasing. He demonstrated shortly the chasing process and put his toolset aside. There are catalogues of drawings of the patterns he uses. He transfers drawings onto the surface by using a copy paper prior to chasing, though, he does not demonstrate this process. However, as he applied many of the patterns so many times, he can recreate them without having the need to copy the drawings. He sometimes applies lacquer on the product surface. By doing so, it can last up to 15 years without getting tarnished.

Additionally, there is another workshop on the upper street where he makes only polishing, tin foiling, nickel and silver plating processes. Nevertheless, as this workshop was closed at the day of my visit, I did not get to see it. He uses his main workshop for making surface embellishment and small repair works as well as showcasing purposes.

Figure 4.39: (*left*) The toolset of the craftsman; (*right*) a regular planishing stake.

Figure 4.40: The craftsman using the toolset.

Materials and Craft Products

As he does not work on sheet copper, he reuses and utilizes existing products which he sources directly from the users. He sells ready-made copper products as well. However, he states that he prefers making them himself, as it is cheaper this way.

Users either bring their old copper products to the craftsman to have them chased and polished for re-use or just to sell out unused goods in their home. He decoratively embellishes the surfaces of the products by choosing a pattern from his catalogue. The users, who buy these products or request customized works from him, re-use them mostly as decoration. Through this process, the craftsman turns functional copper products into decorative ones.

Copper water and milk vessels, water buckets, milk pots, ayran, soup and yoghurt bowls and plates are the products he mainly works on. Therefore, his work is mainly aimed at re-contextualizing old products.

Users utilize these copper items for different purposes, primarily to create oriental style decoration. For example, after surface work, an old water bucket can be transformed into a decorative flower pot or as towel container as post-use. As exemplified by the craftsman tells, he turns old pastry trays into wall clocks as well.

He expresses that his products do not differ from the works of other coppersmiths in the area at all. As most of them generally makes similar kinds of works and patterns, he tells that he does not hesitate to share his drawings with other craftspeople. The coppersmiths copy these patterns from books, carpets or from each other. Based on the observations in the Coppersmiths Bazaar, it seems that sharing of patterns results in similarity in products. The open collaboration in this case shows that the emphasis is put on the re-contextualization of products rather than on originality. Old copper items may diminish in approximately 10 years due to decrease in use. Therefore, as stated by him, his work will be affected as well.

Figure 4.41: Old water cauldrons waiting to be embellished.

Figure 4.42: Embellished and polished copper tray [*sini*] and water vessels.

Tools

The tools the craftsman uses are a maul, a rubber hammer, steel hammers, steel chisels, a planishing stake and steel wires. He provides steel sticks and other available tools from Posta Street in Ulus, where a lot of hardware stores are located. Then, after heat treating the sticks, he pounds the edges of them into the desired shape according to his needs and preferences by a hammer (i.e. diamond-shaped patterns look like traditional sweet pastry [*baklava*]).

Participants in the Process

He sometimes works together with his son in the workshop. He tells that he trained 6-7 apprentices up to now. However, he points out that coppersmithing is not a highly-preferred occupation. Due to its lower pay, young people do not see any future in the craft, which is another barrier for sustaining crafts. He claims that he can teach the craft in three to four months, even in two months, if the apprentice is eager to learn.

Users

He then tells that there is a certain user group who knows him well as he is the oldest craftsman in the Bazaar, and also a local resident in Ankara. He owns a retail store in Sincan district in Ankara, as well. Users sometimes bring their copper products when they are tarnished.

In this chapter, five case studies within the scope of field research that is conducted to explore the craft skills and knowledge in each case in terms of crafts people's practices, products, working conditions, needs and expectations have been explained in detail. It is aimed to provide insights into the current situation regarding the selected traditional crafts in the context of the study site while identifying opportunities and challenges to develop potential design directions for the empowerment of craft skills and craftspeople. Table 4.1 summarizes the significant findings from the main research. In the following chapter, the findings from and insights into the case studies along with the potential design directions are discussed. Implications of this research for product design, and its limitations the recommendations for further research are also explained.

In this chapter, five case studies on four different crafts within the main field research were presented in detail. Through an extensive research via semi-structured interviews and field observations, the insights into the current situation regarding traditional crafts in the context of the study site were provided in order to identify opportunities and challenges for potential design directions for the empowerment of craft skills and craftspeople. Table 4.1 summarizes the significant findings from and insights into the field research.

Implications of Localization for Crafts & Design				
	Calligraphic Wood Engraving Maker	**Hammock Maker**	**Basket Weavers**	**Coppersmiths**
Working Environment	• Production is mainly tailored towards the tourist market including national and international tourists in the Castle area based on the demand of users for authentic products. • Small workspace is used in a versatile manner for storing materials, making process, displaying products and communicating with potential users for selling purposes. • These small spaces is also utilized for the making processes of another craft (i.e. gourd making) • Being at the entrance of the inner Castle the location of the workshop is appealing.	• The hammock making process is mainly oriented towards the tourist market at the site of the Castle. • Small workshop is mainly utilized vertically for the weaving process with the help of the adapted tools for effective use of space. • The workspace is used for storing materials, displaying products and communicating with the potential users. • Additionally, on the cases which requires a bigger workspace, the craftsperson works at home. • The workshop is located at the surrounding area of Castle, close to the site where other workshops are clustered.	• The craftspeople work at their home – utilizing their garden for storing materials and their living room for the making processes. • They sell their products to a basket shop at the site of the Ankara castle, not directly to the users.	• The workspace is used for storing materials, displaying products and communicating with the potential users. • Small space needed for the making process, the space is mainly used for displaying existing and work-in-progress products. • The workshops are located at the surrounding area of Castle, in a street where other coppersmith workshops are clustered.
Materials & Sourcing	• The use of the ready-made mat boards imported from Far East with varying price range, which are used as background panels for the calligraphic wood engraving works have no local or regional alternatives. • Wooden materials are supplied from local and regional shops such as Siteler in Ankara. • The surfaces of the wooden calligraphy pieces are painted with a gold bronze pearl-dusted paint	• Only natural yarns and ropes including sisal, jut and cotton are used in the making process. Cotton yarns are sourced nationally while the other two have to be imported owing to the lack of their plant in Turkey. • The waste materials are given away for re-use to tie growing seedlings in agriculture. • The wooden parts processed on CNC are outsourced from the workshops in Siteler. • There is not much material waste for strings as compared to the wooden parts.	• The raw material, which is the branches of the wild willow/osier willow, is gathered from the surrounding towns and cities considering the decrease of the local plant sources. • Local sourcing of the material is not possible anymore. • The craftspeople are directly involved in materials sourcing. Gathering of material is a demanding and difficult process. • The material requires an initial preparation stage and must be kept in certain humidity conditions.	• Copper ores sourced nationally and supplied from the local coppersmith workshops. • There are different surface finishing alternatives depending on the purpose including lacquering, tin foiling or silver plating. • The materials are used effectively while cutting and shaping copper sheets to reduce waste. • The craftsperson in the first case transfers the craft technique to other materials such as leather, wood, bones, metal items etc.
Tools	• Some technological tools such as electric jigsaws for cutting plywood and computer software (to prepare a template to be used during the cutting process by scanning and outlining the calligraphy digitally) are incorporated into the making process. • Despite of the use of technological tools to some extent in the making process, crafts touch is kept in the products.	• Available tools like chains and carabineers are adapted to be able to hang the products and adjust the height of them for working effectively in a small space. • The craft requires just a few available tools – mostly made by hands.	• Juniper [*ardıç*] – for dividing thick branches into thinner parts - and swath [*tırpan*] – for cutting off of the branches - are traditional tools used in basket weaving. The original tool juniper is originally made by earlier generation of craftspeople, and passed on to them. • Personalization of simple tools – a bent iron construction wire is used for cleaning off of the raw material.	• They share tools with other coppersmiths in the area. • The coppersmiths make their own steel chisel tools based on their needs and preferences to apply surface embellishment on copper.
Making Process	• The craft is affected by strict rules due to its ties to the religion (i.e. the handling of the waste, the requirement for special permission to sign the calligraphy work etc.). • The craftsperson transfers his skills into the different types of products based on demand (i.e. wooden puzzles, wooden portraits, gourd lamps etc.). • Calligraphic wood engraving is regarded as a traditional Turkish craft and supported by the governmental funds or sources. • The craftsman adapts his traditional craft skills to create new custom products.	• The making process is practical and flexible for small products whereas the whole making process of large macramé products such as swings can be time-consuming. • The craft is closer to a hobby – it can be made with fewer, available tools through ease of learning the knotting techniques (and their accessibility). • The craftsperson is open to communication, flexible and practical, and responds to new demands of the users quickly through adapting existing products or developing new ones. • The craftsman creates new products by using traditional knotting techniques.	• Production technique is quick, flexible and adaptable. • The hardest part of the making of a basket is its bottom part which is prepared first to speed up the making process. • The craftspeople can adapt to new demands by applying their traditional craft skills on diverse types of products such as basket pendant, lighting units.	• The collaboration may vary – in the first case the sharing of patterns is limited because of the concern on originality. In this case, that skill is applied to other small items or accessories to make it more appealing for everyday life. • Share of patterns in the second case is more viable among the others. • Some toxic materials are used for surface finishing applications (e.g. lacquering and tin foiling processes) with different purposes (decorative and/or functional)
Apprentic eship	• The transference of the craft through a traditional master-apprentice relationship is not sustained due to socio-economic reasons. The craft is considered as low-pay occupation and does not attract young generation for learning and practicing that skill. • Family involvement in the craft processes – the wife of the maker engages in some stages of the making process such as preparation of template on computer and pearl-dusted paint for surface application.	• Due to socio-economic reasons, the transference of the craft through a traditional master-apprentice relationship has not been viable for a long time. • The craftsperson is keen on training novice craft learners, but not so keen on sharing his products on online platforms due to his concerns on losing the originality of his works by sharing them to be replicated by makers. • The wife of the craftsman engages in the making of simple products like net bags.	• Basket weaving is a generational practice in the family. • Transmitting of craft knowledge is broken down due to economic reasons – only husband and wife continue this practice whereas their children do not opt for the craft as a career option. • Because of the isolated working environment, the possibility of apprenticeship is limited or non-existent.	• They have been involved in training apprentices – but today, traditional apprenticeship is not viable due to socio-economic reasons. • The transference of the craft through a traditional master-apprentice relationship has discontinued. • First case, the craftsperson trained his son who helps him with this process – mainly developing new patterns.
User's Involvement	• The products are adapted and varied based on the demand from the users (e.g. material selection) through the guidance of the craftsperson. • Users decide craft products and materials among the existing product examples displayed in the workshop.	• The craftsman provides customized creative products for the varying demands of the users based on their expression of their needs– i.e. a swing for disabled children, safety nets for skiers, elevator shafts, and construction sites, nets to be used in scenery for theatre plays, climbing ladders for cats etc.	• The lack of direct contact with the users hinders the dialogue with them on a one-to-one basis to gain an understanding regarding their demands, along with the accessibility of the craft to a wider audience.	• Customization is mainly used for relief works including gifts for special occasions, logo applications for firms, municipalities etc. • In the second case, existing copper products are rethought which gives the process a post-use aspect- from functional to aesthetic. • Users can also sell their copper products because the material can be re-processed.
Design Directions	• Material range can be expanded to provide more options for personalization for the users – esp. for the imported materials (i.e. instead of covering wood panel with fabric or using the imported mat boards, plain wood material could be used as background and displaying without framing might be an option, too.). • Permanently attached parts can be reconsidered as currently it does not allow for repair. • As the traditional values behind the craft is regarded as more important than the final product, the story of the making process can be communicated to underline the value of that craft process by without intervening into the making processes, and through preserving the craft as close as possible to the traditional ways. • Re-contextualizing the craft skills into product categories (e.g. wooden puzzles) or new product categories.	• The nature of macramé/the knotting techniques is suitable to combine with different materials and parts (i.e. parts produced with flexible and cost effective manufacturing technologies such as CNC milling, laser cutting, 3D printing etc. or with mass-produced parts) to increase production volume while making the craft products more affordable. • The structure of the product could be rethought via modular parts to allow for the replacement of product parts. Currently it only allows for minor patches and repairs due to the permanent attachment of the connection parts. • The craft is likely to offer halfway design alternatives – for instance to make products such as hammocks, the wooden parts can be rethought to make it more appealing and suitable for everyday life. The connection parts can be rethought (attachable – detachable) to allow the users for bringing these together. • Material range is limited to ropes in one color option and certain types of woods – different material and color options might be offered to users for personalization.	• New templates for more locally relevant basketry products (along with the ways of communicating them to the craftspeople) can be designed to expand the product range. • The story of making process can be shared through design intervention, as this is very unique and rare in that area. • Sustainability of raw materials – in terms of sourcing is unique. Newly introduced materials via design intervention should keep this feature. • The structure of the basketry products could be rethought via modular parts in a way allow for the replacement of product parts. Currently it only allows for minor patches and repairs. • Re-contextualization of this craft through new product categories could make this more relevant and in line with everyday life.	• Re-integrating a piece of embellished copper into other products such as frames, mirrors to make them more relevant to everyday life use and for effective use of time and labor while keeping the personal touch of the craftsperson. • With the personalization of the tools for users and offering unfinished products for them to complete, the users can actively involve in the making process.

Table 4.1: Findings from the field research regarding the crafts in the Castle area in relation to sustainability considerations.

CHAPTER 5

CONCLUSIONS

This thesis aims to explore the current traditional crafts at the site of the Ankara Castle for the empowerment of crafts and craftspeople in accordance with the principles of sustainability, and reveals significant findings relevant to the condition of craft skills and knowledge in terms of craftspeople's practices, products, working conditions, needs and expectations in the context of the study site. This chapter presents the highlighted conclusions and insights gained through the field research. Later, the implications of this research for product design and sustainability and its limitations are discussed. It concludes with the recommendations for further research considering the overall outcomes of the thesis.

5.1 Design Directions and Insights into the Crafts Based on the Findings from the Research in Relation to Sustainability

To iterate, within the scope of this thesis, it is aimed to explore the existing traditional crafts in the Ankara Castle area to gain an in-depth understanding for the current conditions of them in an attempt to discover the opportunities and challenges for the development of design directions to empower craft skills as well as craftspeople. In this regard, the main research question was;

What are the features of traditional crafts in relation to sustainability considerations with a particular focus on localization and personalization?

The sub-questions were;

How can the existing approaches for crafts and design can be categorized for empowering local craft skills and knowledge?

What are the sustainability considerations for empowering traditional crafts in terms of local skills and knowledge?

What are the implications of sustainability considerations for selected crafts in terms of practices, products, working conditions, needs, and expectations?

What are the commonalities and differences among selected craft practices based on localization and personalization?

What are the potential areas for design intervention to enable/empower craft skills and knowledge for sustainability?

As a response to these questions, based on the analysis of the findings from the field research, a number of design directions are derived and grouped under specified key points regarding sustainability. The insights into the main conclusions and findings as well as design directions can be summarized as follows:

The Working Environment

The existing craft practices at the site of the Ankara Castle are the remnants of once rich craft culture in the area, which had to adapt to the changing socio-economic conditions of the place through evolving over time to be able to survive until today. In all of the cases, except for the case of basket weavers, the craft production is mainly aimed at the existing tourist market in the Castle area, as a response to the search of the users for authentic products. The field observations and interviews with the craftspeople indicate that the spatial structure of the Castle area provides a creative context with art galleries, craft workshops, art & craft studios, museums and shops along with a tourist market based on the unique social and cultural identity of the place, enabling the craft practices to be sustained. Relatedly, it can be argued that the existence of a tourist market supports the continuation of craft practices. As Bağlı (2001) states, owing to their local features, craft objects are the reminders of the places where they were made, and they are strongly related to the idea of tradition and the past. In this sense, craft objects differ based on the place, and the search for this difference is the main motive of the tourism. In this regard, promoting this unique spatial structure of the Castle area as a cultural centre through city policies, as in the case of Santa Fe mentioned in the section 2.5.5, to make the area an attractive destination for visitors might be an option for the revitalization of the local crafts.

The craftspeople, except for the case of basket weavers, typically work in small workshops in the area. Therefore, they use their workshops in a versatile manner for storing materials, making processes, displaying products and communicating with potential users for selling. Interestingly, in the case of macramé making, the craftsman adapted some available tools creatively for the effective use of working environment. It is also worth noting that the making processes in coppersmithing require a quite small space, especially for the surface embellishment stage, as it is mostly done sitting at one spot during the whole process, which might be one of the reasons of the survival of this craft until today.

On the other hand, not having a workshop of their own, the basket weavers work at home, somehow isolated from the creative context of the Castle area, using their garden for storing materials and their living room for the craft making processes. The fact that the basket weaver craftspeople do not sell their products directly to the users, their production is mainly based on the demands of the basketry shop for which they supply products, as the intermediary between users and craftspeople. This is a limitation both for the visibility of their craft and for establishing a direct, unmediated dialogue with the users to better understand and respond to their demands, which is an essential feature of craft-based production.

Materials and Sourcing

In calligraphic wood engraving, using some imported materials which have no local alternatives, such as background panels, have some environmental implications related to global distribution. To overcome this issue regarding the materials, instead of covering wood panels with fabric or using the imported mat boards, plain wood material or locally sourced material alternatives might be preferred for background panels. By doing so, the material range can also be extended to provide more options for personalization considering users' needs and preferences. Additionally, considering that the framing of the calligraphic wood engraving works increases the cost of the products, displaying without frame might be an option too. However, considering the conservativeness within the craft based on the strictly religious principles, it appears that exploring any design intervention or experimenting with different materials might be quite challenging.

On the other hand, in the other cases, materials are mostly sourced nationally. As they produce without stock, coppersmiths supply the material from other coppersmith workshops in the neighbourhood when they need it. Coppersmithing being the most common craft practice in the area, the collaboration between coppersmiths and the sharing of tools and materials among them are more prevalent as compared to the other cases. The macramé maker craftsman has the special yarns made in another city due to the fact that there are no local alternatives. Apart from that, the handling of the waste

materials also varies among the craft practices. In the case of the macramé maker, the re-use of the waste materials (e.g. re-using waste cords in agriculture) reflects his environmental consciousness.

Regarding all of the cases, basket weavers are the only craftspeople who are directly involved in the sourcing of materials. Supplied from a locally grown plant, the sourcing and the use of materials in this case are highly sustainable, therefore, any design intervention that would suggest the integration of new materials into the making process should maintain this feature. Nevertheless, the shrinking habitat of the local plant is a critical factor that has an impact on the continuation of the craft. In this sense, the adaptation of basket weavers' craft skills to different material alternatives, which can be sourced locally, might be a viable option. Besides, regarding the material variety of the basket weaving craft as mentioned in the section 4.4, introducing more pliable materials into the weaving process, such as fibrous plants can also extend the product range by allowing the making of more types of products by using the same techniques. In all of the cases, it seems that extending the material range can provide more options to users for personalization.

Tools

Despite the strictly traditional processes of calligraphic wood engraving, it has been observed that some technological tools such as electric jigsaw and computer are utilized in the making while still adhering to traditional materials and techniques. Considering that it is a highly labour-intensive craft, the technological intervention in a way that does not override the craft processes, can be interpreted as an intentional change that is made by the craftsman to shorten the production time.

In contrast to the calligraphic wood engraving, in other cases, mainly pre-industrial tools and techniques are being employed in the making processes. It is noticeable that these crafts, actually, necessitate only a few tools. Hammock making and basket weaving are even mostly done by hands using available materials. This feature of these crafts might be considered as an advantage for teaching and demonstrating them,

especially in the form of an amateur activity. Makers and craft enthusiasts can be encouraged to learn these crafts via digital platforms on which the making processes, materials tools and ideas shared suitable to DIY production and open design as mentioned in the section 2.5.1. Considering the current obstacles to traditional apprenticeship, this might be an opportunity to ensure the spread of the crafts to a wider audience. Furthermore, craftspeople can be trained to use online tools effectively to share their craft knowledge while also extending their products to distant markets. Nevertheless, as these are not considered as traditional crafts, their funding constitutes an issue. Therefore, for any training project related to these crafts, a support at the governmental level is required.

Coppersmithing is unique in terms of personalization of steel chisel tools in comparison to the other cases in which mostly available tools are used in the craft processes. The personalized tools within the craft practice hold potential for offering unfinished products for users to complete using such tools, as in the case of 'halfway products' mentioned in the section 2.2.2, which might result in the users' establishment of a meaningful bond with their products and the opportunities for better personalization based on personal needs and preferences (Fuad-Luke, 2009). In a similar approach, integrating a piece of embellished copper into other products such as frames and mirrors might also be an option to make the craft practice more relevant to contemporary needs, and also for effective use of time and labour while keeping the personal touch of the craftsperson on products.

The Making Process

In all of the cases, it has been seen that the craftspeople are able to adapt their traditional skills to respond to new demands from the users and/or to make their existing products more relevant to the varying needs of the users suitable to the category 'craftsperson as designer' as mentioned in the section 2.5.3.

In terms of the making process, calligraphic wood engraving seems to be the most labour-intensive craft among all cases. However, this does not seem to be very open

to any design intervention compared to the other cases due to the barriers related to the conservative and religious nature of the craft. The deep commitment to the Islamic faith that is inherent in this craft is reflected on its making processes. On one hand, to make the craft works long lasting, all the pieces are permanently glued together in a way that does not leave any space for mistake. On the other hand, due to the spiritual meaning of these letters, any waste from the making process is burned out. In this context, even the meaning of waste also changes, and thus this has been treated quite differently. In this sense, preserving calligraphic wood engraving craft as close as possible to traditional ways while telling the story of the making process to emphasize the value of the hand making and tradition within the craft might be a reasonable way to prevent this from disappearing. However, although the craftsman is a creative person himself, as can be seen on his various types of unique products such as wooden puzzles and gourd lamps, since calligraphic wood engraving craft is heavily based on the implementation of strict processes, it does not leave much room for creativity. Therefore, re-contextualizing the craftsman's craft skills and creativity into the making of new product categories regarding the current needs of users might be more promising in terms of potential design interventions.

Coppersmithing might be considered as a highly elaborate and labour-intensive process, as well. However, on the application of surface embellishment on everyday products like bracelets, the first craftsman has simplified the making process in a way that this shortens the production time. Additionally, it has been seen that the craftsman can adapt his skills to different materials such as leather, bones and metal objects. Moreover, unlike the second case, in the first case of coppersmithing, the emphasis is on the originality of works. In this case, the craftsman uses his creativity in the form of an artistic expression on his products. Relatedly, users mostly demand unique products such as gift items for special occasions with an emphasis on their symbolic meaning rather than their functional use. Considering the existing demand for one-of-a-kind products, an online platform to help users define their needs for the making of unique craft products and to show the product diversity would be promising for the revitalization of the craft. As an example, on CustomMade online marketplace, users can connect with independent artisans who make custom-designed furniture, jewelry

and various other personalized items and express their ideas to them through the guidelines on the platform (CustomMade, n.d). On the other hand, in the second case of coppersmithing, it seems that re-contextualizing old copper items with a second life/post-use aspect is given more importance than the originality of works. It appears that the sharing of patterns, without any concern on authenticity, results in a similarity among the end-products. However, it also provides an open design platform where any pattern can be co-developed and evolve over time.

In comparison to the other cases, macramé making can be considered as a craft close to an amateur activity regarding the ease of learning and spreading the basic knotting techniques, and the availability of its materials. Therefore, it might be supported through maker movement and DIY cultures on open online platforms to ensure the spread of the craft. Moreover, among all of the cases, the nature of macramé seems the most suited craft to combine with different materials and parts such as parts produced with flexible and cost-effective manufacturing technologies to shorten the making process while making craft products more affordable for the users. Besides, the flexible nature of macramé together with the craftsman's creativity, which is reflected on his unique products that he designed as a response to users' varying problems, makes this craft a promising area for any design intervention. Apart from that, the longevity of the piece is very important in all of the cases as this is the key for all craft works. However, considering that making the whole product as a single piece with permanently attached parts does not allow for repair, the structure of the macramé products could be rethought with modular units in a way to allow for part replacement. Besides, based on the above-mentioned features of the craft, macramé making is likely to offer 'halfway design' (Fuad-Luke, 2009) alternatives through reconsidering the connection between the structural parts and the whole body, which would enable ease of disassembly and replacement. It would allow users for bringing these together while creating a chance for better personalization and also establishing an emotional bond with their products.

In comparison to calligraphic wood engraving and coppersmithing, both macramé making and basket weaving are practical and flexible processes which are based on

the simple knotting or weaving techniques. For basket weaving craft, considering the fact that the face-to-face dialogue of the craftspeople with the users is disrupted, new templates for more locally relevant basketry products can be developed - along with the new ways of communicating them to the craftspeople - to expand their product range. By doing so, this disappearing craft practice might be revitalized through making basketry products more relevant to the current needs of users. Besides, since craftspeople's production is mainly based on the copying of existing products, they can also be trained to be more creative and to learn self-innovation as in the case of local women in Salihli who create new packaging designs for their bottled tomatoes as mentioned in the section 2.5.4 In this approach, designers can collaborate with the craftspeople through encouraging their creativity and empowering them through design instead of providing direct design solutions for craftspeople. Furthermore, as basket weaving is a rare and unique craft in the area, the story of the making process can also be shared to make this more visible to the people. For instance, in Cappadocia region, which is one of the well-known touristic places in Turkey, ceramic craft is presented to tourists as an interactive show that they can watch and participate in the making of ceramic products. By doing so, the craft practice becomes a meaningful experience for tourists (Akbulut, 2013). Likewise, this might be an alternative way to revitalize basket weaving craft as well.

Apprenticeship

As an essential feature of craft based production, craft skills and knowledge are transferred traditionally through a master-apprentice relationship. Nevertheless, it is found out that in all of the cases, this apprenticeship system almost disappeared which poses a big threat for transferring or teaching craft skills and knowledge, and sustaining craft practices in the future. Therefore, it is vital for the continuation of the crafts to ensure the transference of them to the new generations through providing apprenticeship programs or training courses such as 'One Master Thousand Masters' [*Bir Usta Bin Usta*] and 'Masteriece Beyoglu' [*Usta İşi Beyoğlu*] projects or through integrating craft production into design education as in 'Made in Şişhane' project as mentioned in the section 2.5.5. Although the spread of craft skills and knowledge in

macramé making and basket weaving seems to be suitable to be supported via online platforms, considering that calligraphic wood engraving and coppersmithing are more labour-intensive and considerably hard-to-learn crafts, apprenticeship training might still be more viable for them to be able to transfer these skills. Moreover, for basket weavers, the isolation of their working space from the network of craft workshops along with the users in the area further limits the possibility of apprenticeship. However, despite of the fact that the passing on the crafts to the new generations has not continued effectively via apprenticeship, in all of the cases, family involvement in the making processes to some extent and sustaining craft tradition in the family can be seen, which enables next generations to be engaged or at least get familiarized with craft practices.

User's Involvement

For all the cases, except for the case of basket weaving, the products are mainly made and/or adapted with a user-oriented approach through the face-to-face dialogue with the users based on their demands. This is a very unique feature of craft-scale production. In this sense, craftspeople, to a certain extent, collaborates with the users in the making of customized products. In order to enhance this collaboration further and also to ensure the access of more users to the craft products, again online platforms might be used to show the product ranges of craftspeople, as well as giving an idea to the users about their craftsmanship.

5.2 The Implications of This Research for Product Design and Design Research

This thesis has provided a comprehensive review about traditional crafts at the site of the Ankara Castle to identify the potential ways that design can contribute to the empowerment of both craft skills and craftspeople. Exploring the situation of current craft skills and knowledge in the context of the study site in terms of craftspeople's practices, products, working conditions, needs, and expectations leads to a better understanding of the development and revitalization of local skills and traditional crafts. In the light of the findings from the field research on five craft cases, design considerations are developed in relation to sustainability as presented previously.

The findings and conclusions drawn from the study aim to provide a basis for designers and researchers for the development of potential design interventions to revitalize and empower craft skills and knowledge. This research also contributes to design knowledge and sustainability through identifying local knowledge and skills within craft practices in the study site as a rich source of innovation that can derive from local contexts.

5.3 Limitations of the Research

Exploring traditional crafts is quite challenging as the tacit knowledge embedded in a craft practice is hard to describe verbally, therefore, gaining a full understanding into a craft process requires visiting the workshops and observing the making processes several times, which is a lengthy process. In order to overcome this issue, the craft making phases are observed via video and audio recordings during the field research with an effort not to interrupt the making processes. However, despite these strategies, the time constraints of the craftspeople seem to be a limitation of this study.

Furthermore, as previously stated, the study site is selected based on the criteria of accessibility of the area. Nevertheless, a context which provides more variety in terms of craft practices could offer more opportunities for the exploration of traditional crafts. In this regard, the limited number of existing traditional crafts in the research area is another limitation for the research.

5.4 Recommendations for Further Research

Considering the conclusions and findings from the thesis, the knowledge acquired from this research can be translated into design explorations by adopting a research through design approach to further contribute to the empowerment of traditional crafts. Working in collaboration with the craftspeople, these design interventions can be evaluated through developing design alternatives and prototypes to identify their implications in relation to the sustainability considerations and the empowerment of local skills and knowledge. The research can be taken a step further to explore potentials of integrating new and flexible technologies into the craft processes.

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APPENDIX A

INFORMED CONSENT FORM

Turkish Version

Table A.1: Consent form prepared in Turkish for the semi-structured interviews.

Katılımcı İzin Formu	
Araştırma konusu: Ankara'nın Ulus bölgesinde yer alan zanaatkârların ürün geliştirme ve üretim süreçleriyle ilgili görüş ve deneyimlerinin alınması **Araştırmacı:** Aslıhan Tokat, Yüksek lisans öğrencisi, Orta Doğu Teknik Üniversitesi Bu araştırma Orta Doğu Teknik Üniversitesi Endüstri Ürünleri Tasarımı Bölümü yüksek lisans tezi kapsamında yapılmaktadır. Araştırmanın amacı, Ankara'nın Ulus bölgesinde yer alan zanaatkârların ürün geliştirme ve üretim süreçlerinin daha kapsamlı anlaşılması amacıyla zanaatkârların görüş ve deneyimlerinin alınmasıdır. Görüşme sırasında elde edilen veriler yalnızca bilimsel amaçlarla, tasarım sürecinde, tez araştırmalarında, bilimsel yayınlarda ve sunuşlarda kullanılacaktır. Katılımcıların kimlik bilgilerinin gizli tutulması için gerekli bütün önlemler alınacaktır. Görüşme sırasında konuşulanları daha sonra tam olarak hatırlayabilmek ve gözden geçirebilmek için görüşme sesli ve görüntülü olarak kaydedilecektir. Görüşme yaklaşık bir saat sürecektir. Bu formu imzalayarak yapılacak araştırma konusunda size verilen bilgiyi anladığınızı ve görüşmenin yapılmasını onaylamış oluyorsunuz. Bu formu imzalamış olmanız yasal haklarınızdan vazgeçtiğiniz anlamına gelmemektedir. Görüşme sürecinin başlangıcında veya herhangi bir aşamasında açıklama yapılmasını veya bilgi verilmesini isteyebilirsiniz. İstediğiniz zaman gerekçe belirtmeksizin görüşmeyi sonlandırmayı talep edebilirsiniz. Araştırmaya katkıda bulunduğunuz için teşekkür ederim.	
Görüşme tarihi	**Cinsiyeti / Yaş**
Toplam görüşme süresi	**Mesleği**
Katılımcının Adı Soyadı	**Tarih/İmza**

Araştırmacı: Aslıhan Tokat ODTÜ Endüstri Ürünleri Tasarımı Bölümü, Yüksek Lisans Öğrencisi aslihantokat@gmail.com	**Tez Yöneticisi:** Doç. Dr. Çağla Doğan ODTÜ Endüstri Ürünleri Tasarımı Bölümü Tez danışmanı Tel: 312 210 2214 dcagla@metu.edu.tr

English Version

Table A.2: Consent form prepared in Turkish for the semi-structured interviews.

<table>
<tr><th colspan="2">Informed Consent Form</th></tr>
<tr><td colspan="2">Research Subject: Exploring Ankara Ulus based crafts people’s experiences and insights related to product development and craft making processes

Researcher: Aslıhan Tokat, M.Sc. student, Middle East Technical University

This research is conducted within the context of the master’s thesis in the Department of Industrial Design at METU. The aim of this research is to explore Ankara Ulus based crafts people’s experiences and insights in order to better understand their product development and craft making processes. The data received during the interview will only be used for educational purposes, design projects, thesis work and journal publications and presentations. The participants’ personal information will be kept confidential. The sessions will be audio and video recorded in order to remember exactly what is told and performed. The session will take approximately one hour.

Your signature on this form indicates that you have understood the information regarding the aim of this research study and agreed to participate as a research subject. Signing this form does not mean that you waive your legal rights. You may withdraw from the study at any time without any excuse. If you would like to more detail about something, please feel free to ask throughout the interview. Thank you for your participation in this research.</td></tr>
<tr><td>Date of the session:</td><td>Gender/Age:</td></tr>
<tr><td>Duration of the session:</td><td>Occupation:</td></tr>
<tr><td>Name, Surname of the Participant</td><td>Date/Signature</td></tr>
<tr><td>Researcher: Aslıhan Tokat
METU, Faculty of Architecture,
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</table>

APPENDIX B

INTERVIEW QUESTIONS

Turkish Version

Table B.1: Semi-structured interview questions in Turkish.

<table>
<tr><th colspan="2">1. Aşama: Giriş</th></tr>
<tr><td colspan="2">Merhaba. İsmim Aslıhan Tokat. ODTÜ Endüstri Ürünleri Tasarımı Bölümü'nde Yüksek Lisans öğrencisiyim. Tez çalışmamda Türkiye'de zanaatın güçlendirilmesi ve desteklenmesi konularını araştırıyorum. Araştırma kapsamında, Ankara'nın Ulus bölgesinde farklı zanaat kollarında el üretimine devam eden zanaatçılarla görüşmeler yapıyorum. Görüşme süresince, bir ürünün üretim sürecini gözlemleyip, sorular sormak istiyorum. Bu görüşme sırasında konuşulanları sadece bilimsel amaçlarla, tasarım sürecinde, tez araştırmalarında, bilimsel yayınlarda ve sunuşlarda kullanılacaktır. Kimlik bilgilerinizin gizli tutulması için gerekli bütün önlemler alınacaktır. Görüşme sırasında konuşulanları daha sonra tam olarak hatırlayabilmek ve gözden geçirebilmek için görüşme fotoğraf makinesi, video ve ses kayıt cihazı ile kaydedilecektir. Görüşmemiz tahminen bir saat sürecektir.</td></tr>
<tr><th colspan="2">2. Aşama: Gözlem</th></tr>
<tr><td colspan="2">Gözlem aşaması, video ve fotoğraf yoluyla, süreçlerin, malzemelerin, becerilerin, ürünlerin, çevrenin kapsamlı kaydının yapılmasını içerir.
Üretim süreci kaydedilecek ürün seçilirken, üretimi birkaç saatte bitebilecek bir ürün veya ürünün bir parçası olmasına dikkat edilmelidir.
Kullanılacak araçlar: Video kayıt cihazı, fotoğraf makinesi, tripod, görüşme kılavuzunun çıktısı.</td></tr>
<tr><th colspan="2">3. Aşama: Görüşme</th></tr>
<tr><td rowspan="3">Zanaatın özellikleri</td><td>S1: Bu zanaatı nasıl & nereden öğrendiniz?</td></tr>
<tr><td>S2: Bu zanaatla kaç yıldır uğraşıyorsunuz?</td></tr>
<tr><td>S3: Neden meslek olarak bu zanaatla uğraşmayı seçtiniz?</td></tr>
</table>

	amaç: zanaatçının hikayesi, sosyal ve ekonomik koşullarının saptanması
Çalışma ortamının özellikleri	**S4:** Neden özellikle atölyenizi burada kumayı tercih ettiniz? Ankara'nın başka bir bölgesinde çalışmak ister miydiniz? Neden?
	S5: Çevredeki zanaatkârlarla ilişkileriniz nasıl? Çalışma açısından paylaşımlarınız oluyor mu? Araç ve malzemeler açısından herhangi bir alışverişiniz var mı?
	amaç: çevresel koşulların ve çalışma ortamının hem zanaatçı hem de araştırmacı için sunduğu olanak ve zorluklarının saptanması
Yapım süreci	**S6:** Seçtiğimiz ürünün üretim sürecini anlatır mısınız?
	amaç: zanaatın ve yapım sürecinde kullanılan yeteneklerin ve bunların özelliklerinin tespit edilmesi
Malzemeler	**S7:** Malzemeleri nereden alıyorsunuz? Malzemelerin geldiği yer neresi? Ankara içinden mi yoksa başka bir yerden mi geliyor? Malzemeler orada mı işleniyor yoksa başka bir yerden mi oraya geliyor? [Süreci anlatırken veya gösterirken kullandığı tüm ana malzemeler için bu soru yöneltilir.]
	S8: Malzemeleri Ankara dışından temin etmenizin sebepleri neler?
	S9: Malzeme neden bu yerden temin ediliyor? Bu malzemenin yerel ve/veya bölgesel alternatifleri var mı? Bunların tercih edilmesi nasıl özendirilebilir? Bölge içinden temin edebileceğiniz malzemeler var mı? Bunları kullanmayı tercih eder misiniz? Neden?
	S10: Malzemeleri yeniden kullanma şansınız oluyor mu? Örnek verebilir misiniz?
	amaç: malzemelerin kaynağı, malzemelerin ekonomik ve çevre dostu yerel/bölgesel alternatifleri ile bunları kullanmanın zorluk ve olanakları, malzemelerin depolanması ve yeniden kullanımının saptanması
Araçlar	**S11:** Kullandığınız aletler neler? Hangi malzemeyle hangi parça için bu aletleri kullanıyorsunuz? Neden bunları tercih ediyorsunuz? Üründen ürüne farklılaşan aletler var mı? Örnek verebilir misiniz?
	S12: Bunları kendiniz mi yaptınız? Nasıl?

	S13: Bu aletlerin yerine başkaları kullanılabilir mi? Bunlar neler? Bu aletleri neden tercih etmiyorsunuz?
	amaç: yapım aşamasındaki tüm adımlarda kullanılan aletlerin özellikleri ve amaçlarının saptanması
Süreçteki katılımcılar	**S14:** Yapım sürecinde sizinle birlikte çalışan başkaları var mı? Varsa görevleri neler? Nasıl sürece dâhil oluyorlar?
	S15: Eğer kimse yoksa başkalarının olmasını tercih eder misiniz? Neden?
	S16: Bu zanaatı öğrettiğiniz kimseler var mı?
	amaç: yapım aşamasında yer alan tüm katılımcıların, usta-çırak ilişkisi ve bilgi-becerilerin aktarımının saptanması
Kullanıcılar	**S17:** Ürünlerinizi alan kişiler kimler (yerli, yabancı turistler mi, yerel halk, vb.)?
	S18: Belli grupların daha çok tercih ettikleri ürünler var mı? Varsa neler? Sizce neden?
	S19: Kullanıcılarla, ürünlerinizi alan kişilerle sonra da iletişim kuruyor musunuz (tamir vb. sebeplerle)?
	amaç: kullanıcı-zanaatçı ilişkisinin ve kullanıcı gruplarının saptanması
Zanaat ürünleri	**S14:**Ürünleri nasıl geliştirdiniz? Bir yerden mi uyarladınız? Ürünlerle ilgili ilk fikirleriniz ve çözümler nasıl oluştu? Ürünler üzerinden örnek verir misiniz?
	S15:Ürün çeşitliliğini neye göre belirliyorsunuz (kullanıcılardan gelen öneriler vb.)?
	S16: Sizce ürünleriniz, piyasada satılan benzer ürünlerden hangi yönleriyle farklılaşıyor? Örnek verebilir misiniz?
	S17:Şimdiye dek ürettiğiniz ürünleri atölye dışında sergilediğiniz bir yer var mı? Ya da yayınlandığı bir yer var mı? Yayınlanan ürünlerin fotoğraflarını ve/veya örneklerini saklıyor musunuz?
	amaç: zanaat ürünlerinin belgelenmesi
Gör üşle	**S18:**Bu mesleği devam ettirebilmeniz için gerekli koşullar neler? Siz kendi koşullarınızı nasıl değerlendirişiniz?

	S19: Ne tür zorluklarla karşılaşıyorsunuz (üretim / yapım süreçleri, çalışma ortamı, çevresel koşullar, malzeme, vb.)?
	S20:Çalışma koşullarınızın iyileştirilmesine yönelik önerileriniz neler?
	S21: Zanaatın gelişmesine yönelik önerileriniz neler?
	amaç: zanaatçıların zanaatın sürdürülebilmesi ve canlanmasına yönelik deneyimlerine dayalı görüşlerinin belirlenmesi
Notlar	
Kontrol listesi	Giriş – Araştırma hakkında bilgi verilmesi
	Zanaatçı hazırlık yaparken tripod ve kameranın yerleştirilmesi
	Fotoğraf makinesi [elde], görüşme ve kılavuzu ve kontrol listesi hazırlanması
	Ürün yapımına başlamadan önce video ve ses kaydının açılması
	Görüşme [ısınma sorularıyla başlanır]
	Üretim süreci [ilgili temalarda soruları yöneltirken malzemelerin, aletlerin, ürünlerin ve süreçlerin fotoğraflanması]
	Bitmiş ürünün fotoğraflanması
	Atölyenin fotoğrafı [içeriden ve dışarıdan]

English Version

Table B.2: Semi-structured interview questions in English.

Interview Questions	
Features of the Craft	**Q1:** How & when did you learn this craft? [From whom?]
	Q2: Since when have you been engaged in this craft?
	Q3: Why did you choose this craft as an occupation?
	aim: the identification of the story of the craftsperson along with her/her social and economic conditions
The Features of the Working Environment	**Q4:** Why did you prefer establishing your workshop particularly at the site of Ankara Castle?
	Q5: What do you think about your relationship with the craftspeople at the Castle and its surrounding area? Is there any collaboration in terms of work? Do you share any tools, materials etc.?
	aim: the identification of the opportunities and challenges of the environmental conditions and the working environment both for the craftsperson and the researcher
Making Process	**Q6:** Please explain the making process of the selected product.
	aim: the identification of the craft and the craft skills which are utilized during the making process and the features of them
Materials	**Q7:** Where do you get/source the materials? Where do the materials come from? Do they come from Ankara or somewhere else? Are they processed there or come from somewhere else? [Asked for all the materials while explaining or showing the making process.]
	Q8: What are the reasons for supplying materials outside of Ankara?

	Q9: Why do you supply materials from this place? Are there any local and/or regional alternatives of them? How might the use of these be encouraged? Are there any materials that you can get regionally? To what extent do you prefer using these? Why?
	Q10: Do you re-use materials? Could you give an example?
	aim: the identification of the source of materials, local and/or regional alternatives of materials that are economical and environmentally-friendly, and the opportunities and challenges of using them, storage and re-use of materials
Tools	**Q11:** Which tools do you use? For which specific material and part do you use these tools? Why do you prefer using these? How do these tools differ according to varying products? Could you give an example?
	Q12: Do you made these tools yourself? If so, how?
	Q13: Can any other tools be used instead of these? What might the other tools be? Why do you not prefer using these?
	aim: the identification of all the tools which are used in all the stages of the making process and their purpose
Participants in the Process	**Q14:** Are there any others who work with you during the making process? If yes, what are their roles? How do they engage in the making process?
	Q15: If there is no one, would you want someone working with you? Why?
	Q16: Is there anyone to whom you teach this particular craft skill?
	aim: the identification of all of the participants in the making process, master-apprentice relationship and the transfer of skills and know-how
Users	**Q17:** Who does buy your products (local or foreign tourists, local people etc.)?
	Q18: Are there any products that are often preferred by certain user groups? What are these? Why?
	Q19: Do the end-users contact you because of the reasons such as repair, maintenance etc.?

	aim: the identification of the user-craftsperson relationship and the user groups
Craft Products	**Q20:** How do you develop your products? Do you adapt them from somewhere? How do your first ideas and solutions come up? Could you give some examples from the products?
	Q21: How do you determine the product range (suggestions coming from the users etc.)?
	Q22: In what ways do you think your products differ from their counterparts on the market? Could you give some examples?
	Q23: Is there any place that the products you produce up to now are exhibited and/or displayed? Or are they published anywhere? Do you keep the photographs and/or samples of them?
	aim: the development, documentation and exhibition of the craft practices and products
Comments and Suggestions	**Q24:** What are the required conditions for you to sustain your craft? How would you evaluate your current conditions?
	Q25: What kind of the challenges do you face (making processes, working environment, environmental conditions, materials etc.)?
	Q26: What are your suggestions to improve your working conditions?
	Q27: What are your suggestions for the empowerment of craft?
	aim: the identification of the insights of craftspeople regarding the sustainability and revitalization of the craft based on their experience

APPENDIX C

CONTENT ANALYSIS

Table C.1: A content analysis example from the macrame maker's case.

Themes	Raw Data	Insights
Features of the Craft	**Q1:** How & when did you learn this craft? [From whom?]	The existence of a tourist market helps the proliferation of crafts as tourists specifically search for the authentic products. If his workshop was located somewhere else, he probably would not been able to sustain his craft and opt for a different occupation. Economic and local conditions also affect the craft.
	• As his workshop is located in a touristic place, he started making hammocks by thinking that it might appeal to the tourists. • He did not know how to tie a macramé knot in the first place. His wife showed him the very first knot as she previously had learned making macramé at high school. • After selling his very first hammock, he has foreseen that he could sell more and decided to continue with the craft. • While getting better at making hammocks by trial and error, he also started to make macramé swings.	
	Q2: Since when are you engaged in this craft?	He has 32 years of craft experience. Therefore, he has extensive knowledge on the

	• He has been making macramé for 32 years.	material (kinds of ropes, strings, and wooden parts) and knotting techniques that he learned through making. Know-how/tacit knowledge through experimentation over 30 years.
	Q3: Why did you choose this craft as an occupation?	
	• See Q1. • He always tries to develop his craft and his products.	
The Features of the Working Environment	**Q4:** Why did you prefer establishing your workshop particularly at the site of Ankara Castle?	
	• He established his workshop at the site of Ankara Castle due to the economic conditions of the time. • The fact that the Castle is a touristic place contributed him to keep on with the craft and further develop it.	
	Q5: What do you think about your relationship with the craftspeople at the Castle and its surrounding area? Is there any collaboration in terms of work? Do you share any tools, materials etc.?	

	• As he does not use many tools and often makes his own tools when he needs, he does not get the chance to share tools and materials. • Also, there is not any other hammock maker in the area.	
Making Process	**Q6:** Please explain the making process of the selected product.	The macramé craft might be well applied to different kinds of products either to replace parts or to repair them. Moreover, it is also suitable to integrate with 3D printed and/or mass produced parts etc. However, making the whole product out of macramé takes up too much time (e.g. more than 1 week for a swing). He cannot keep up with bulk orders. Thus, instead the macramé parts might be integrated with basic parts produced on machines (CNC machines, laser cutters, 3D printers etc.) or adapted to different products (example). This might

• He makes a flower pot holder. He uses a stainless aluminum wire ring to place the pot inside. By bending the wire himself, he makes a ring in preferred size. He does not use welding. • He makes little balls from sizal yarn to be able to easily wrap the metal ring with the yarn. • He wraps the ring and finishes by tying a knot. • Then, after cutting the strings to a certain length, he hangs them with the help of carabineers at the end of chains hanging from the ceiling. • The handle is separated into 3 branches each made up of 4 strings. • He ties knots to create the handle part. • After tying enough knots for the handle, he takes it out of the hanger, ties a knot around and completes the handle part of the pot holder. • He then hangs the strings and starts to place the beads. To keep them in place, he ties knots around them as well. • In the meantime, he constantly checks to make sure the strings are the same length. • He ties a knot by using 4 strings. • He adjusts the length of the chains hanging from the ceiling to change the height of	speed up the making process, increase the production volume and encourage customization while adding human touch by local craftspeople. Moreover, if the products or parts of them are made locally, the users might have the opportunity to better shape them according to their needs. As a result, this shift could make space for local craftspeople in the current system. As the craftsman is a maker and creative person himself, he seems quite open to any innovative process related to his craft.

	the pot holder and to work easily. • He places and ties the metal ring on the pot holder. • He ties the knots in the body part in a way to create a certain pattern. • Lastly, he ties the strings together at the bottom and completes the making of the pot holder. He cuts the excess strings. • The making of a swing takes approximately 1 week. However, to adjust the stretching tolerances of the strings takes a certain time a	
Materials	**Q7:** Where do you get the materials? Where do the materials come from? Do they come from Ankara or somewhere else? Are they processed there or come from somewhere else? [Asked for all the materials while explaining or showing the making process.]	Material range seems limited. He only uses white ropes and certain types of woods. Different ropes and colors might be experimented to allow personalization.
	• He uses only natural yarn. He does not prefer synthetic yarn because it contains carcinogenic substances and also it stretches in the sun. • There are 3 types of yarns he uses: sisal, jut and cotton yarn.	

• Sizal yarn is made of fibers of a tree that is grown in Africa. • He buys most of the yarn in Istanbul. • He buy the other materials (wires and wood) in Ankara. • He uses aluminum wires in the body parts of some of the products. He buys this wire at the local hardware stores. • He gets made the wooden parts of the hammocks in Ankara, Siteler. He uses pine wood, common beech, teakwood and alder. • He stores all the materials in the workshop.	
Q8: What is the reason that you supply materials outside of Ankara? **Q9:** Why do you supply materials from this place? Are here any local and/or regional alternatives of them? How might the use of these be encouraged? Are there any materials that you can get regionally? Do you prefer using these? Why?	Sourcing: It seems that strings might be sourced locally as the craftsman knows how to make it himself and also wool is a common material in Ankara. He provides the wooden parts from local supplier but does not have any information regarding the source. -For what reasons does he prefer different kinds of wood material? -For which products does he use certain type of wood? Why? -What type of wood does he use in his main products?
• Jut yarn is a hemp (marijuana) variety. It is illegal to grow its plant in Turkey. Therefore, the yarn is imported. • He gets cotton yarns made in Hatay. These yarns were formerly spinned in the caves to make the strands of fibers hold together with the help of the moisture of the place. Nowadays, spinning machines are used. • He made 3, 5, 7 and 10 mm yarn samples for the yarns	

	producers in Hatay and requested from them special yarns for making hammocks and swings. • He chooses materials himself.	
	Q10: Do you re-use materials? Could you give an example? • He gives away the cut-out parts of yarn to the people engaged in agriculture to tie growing seedlings. By doing so, these yarns do not harm the environment when they fall on soil.	There is not much material loss in case of strings. Also, as he gets wooden parts made in somewhere else, he does not have much waste material to re-use.
Tools	**Q11:** Which tools do you use? For which specific material and part do you use these tools? Why do you prefer using these? Do tools differ according to varying products? Could you give an example? • The tools he uses: screwdriver, pliers, rulers, paper, pencil, carabineers and chains to hang products. • He get the wooden parts made in Siteler but he make drawings of the parts himself. • The metal feet of the swings are produced by CNC machines. The parts are drawn in AutoCAD in the workshops in Siteler and	Production of local tools [missing info]: Chains hanging from the ceiling and carabineers helps the craftsman adjust the height of the products and work comfortably. Adaptation of tools. There are two types of tools that he uses: 1. Available tools 2. Self-made tools Available tools that he utilizes can be easily found anywhere. The availability of tools could have a positive impact on the revitalization of the craft. Metal feet seem bulky and do not have a similar product language

	transferred digitally to the CNC machines. • He has knowledge and experience on the materials' thicknesses, their strength and material properties (corrosion etc.).	(photo). Also, joining details of the feet are not designed properly.
	Q12: Do you made these tools yourself? How? **Q13:** Can any other tools be used instead of these? What might the other tools be? Why do you not prefer using these?	
Participants in the Process	**Q14:** Are there any others who work with you during the making process? If yes, what are their roles? How do they engage in the making process?	-Is halfway design possible on macramé products? -Is repair of different products with macramé technique possible? How might be the scenario for it?
	• His wife sometimes works with him and makes net bags. However, the craftsman first makes the handle part and adjusts the length of the yarn before giving it to her. • He taught macramé his daughter and son too but they do not make. •	
	Q15: If there is no one, would you want someone working with you? Why? **Q16:** Is there anyone to whom you teach the craft?	
	• He would like to have someone to work with him. He needs someone to leave his workshop and allocate time to research and develop his projects. • However, he did not get the chance to teach an apprentice	For the empowerment and sustainability of the craft, the skills are needed to be taught and passed to the upcoming generations. However, macramé is a time consuming craft and most people might not prefer allocating all their time to it. Thus, the

	so far because he could not support anyone financially.	revitalization/spread of the craft might be ensured by passing the mastery to as many people as possible as a part-time occupation.
Users	**Q17:** Who buy your products (local or foreign tourists, local people etc.)?	
	• There is not any specific user group who prefer his products. Both foreign tourists and local people buys them.	
	Q18: Are there any products that are often preferred by certain groups? What are these? Why?	-Which products in your product range do you mostly sell? -Do tourists actually buy hammocks or do they prefer products that they can easily carry along? -Do users still use market nets? [Market nets can be sold in supermarkets or local organic markets.]
	• There is not.	
	Q19: Do users contact you because of the reasons such as repair, maintenance etc.?	Durability is important for gaining the trust of the users. He has experience and knowledge regarding installation of the products as well. -Which products do users bring for repair?
	• Just a few users come for repair. He repairs for free when they come. • He makes his products so that they do not require any repair. Especially for the hammocks and swings, as users buys and use these products in distant holiday places, they do not have the chance to bring the products for repair. Therefore, he guarantees product longevity.	

	• Average life-span of the yarns that he uses is 20 years. • He uses his hammocks himself in order to test their durability.	
Craft Products	**Q20:** How do you develop your products? Do you adapt them from somewhere? How do your first ideas and solutions come up? Could you give some examples from the products?	
	• He makes and displays the products which he believes that they will be sold. If they do not sell, he does not continue making them. • He launches new products, put them up for sale for trying out during the summer season. In winter, he makes new products for the summer season or develops the existing ones.	
	Q21: How do you determine the product range (suggestions coming from the users etc.)?	The application area of macramé is quite wide (from hammock to jewelry). His product range is formed based on both his personal preferences and the situation of the market. He adapted to the local conditions. -How does he adapt his skills to different products? -How does the adaptation process work? Does he make drawings or templates? During the interview, there was one user asking a part of macramé work to make a lampshade. As mentioned above, macramé holds a great potential for repair. However,
	• He has some creative ideas. A swing for the disabled children is one of his projects. After he came up with the idea, in order to learn these children's problems and needs, he went to a rehabilitation center for the disabled children and consulted a few physical therapist experts there. In accordance with the information he got from them, he made a swing that	

	embraces them and the children can feel safe inside. • The Uludag Skiing Federation contacted him and requested a safety net for the skiers. He made a net that can stop very fast skiers without hurting them. He made its stretching tolerances and size of the pattern/gaps specifically for the purpose. As he had not made a net this size before, after trial and error he developed his own tools [could not get more information about what they are]. Hence his workshop is fairly small, he made it at home. He also made safety nets for elevator shafts and construction sites. • Bespoke products like; nets to be used in scenery in theatre plays (Spartacus and Romeo Juliet). • Net for climbing • Climbing ladder for cat • A net for agriculture students to help them carry mountain goats for their research. • He makes bespoke products as single items. • As his main products are hammocks and swings, he makes these every year. Instead of them, he does not make a variety of products. As a result of his experience, he has a foresight regarding which product would sell and which not. Therefore, he	the craft works displayed in the workshop are limited to only hammocks, swings, net bags, pot holders and bottle coverings. Therefore, it might be important to display macramé integrated with different kinds of products to indicate this potential. Furthermore, a product entirely made of macramé might not appeal to every users' taste. Presenting the existing skill in a different way is necessary.

	considers this when he is to make new products.	
	Q22: In what ways do you think your products differ from their counterparts on the market? Could you give some examples? **Q23:** Is there any place that the products you made up to now are exhibited? Or are they published anywhere? Do you keep the photographs and/or samples of them?	
	• There is not any other place to display his products apart from his workshop. • There are a few TV and newspaper interview on his craft. • He previously put photos of his works on his website, however he removed them since they were copied. • He does not sell online. • As his workshop is located in a touristic place, people sees and buys his products in the workshop.	
Comments and Suggestions	**Q24:** What are the required conditions for you to sustain your craft? How would you evaluate your current condition?	
	• He needs a bigger workshop. • He says that a wood workshop and a separate place for the production would be better as it causes	

	problems to produce and sell in the same place.	
	Q25: What kind of the challenges do you face (making processes, working environment, environmental conditions, materials etc.)?	
	• People does not appreciate the hand production. He thinks that people's view regarding craft products is wrong. • He does not think that his effort and experience to master this craft and to produce by hand is appreciated. • He states that foreign tourists approach differently towards his products. They appreciate what he does. • The Ministry of Culture and Tourism offers a tax reduction for the traditional hand crafts. However, he says that he has been rejected as his craft is not considered a traditional craft by the ministry.	
	Q26: What are your suggestions to improve your working conditions? **Q27:** What are your suggestions for the empowerment of craft?	
	• He proposes a business model. • He wished to teach his craft to the students in vocational schools, inmates and/or in courses related to the	

		municipality such as BELMEK. In case of bulk orders in numbers exceeding his production volume (100.000-300.000 products), it is not possible for him to make it all by himself due to the length of the making process. Nevertheless, if he teaches the craft to the inmates, he says then it would be possible keep up with the bulk orders as the production capacity would increase a lot.	