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The Tools and Materials of Making: An Ethnography of Makers

By

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A Thesis Submitted to the Faculty of Social and Applied Sciences
in Partial Fulfilment of the Requirements for the Degree of

MASTER OF ARTS IN PROFESSIONAL COMMUNICATION

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July 2020



MICHAEL JAMES 2020

COMMITTEE APPROVAL

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Abstract

The maker and handmade movement have influenced many aspects of our popular culture. The embracing of the handmade has become a value-based proposition for many consumers. So much so that the maker is the subject of much scholarly research. However, that research often does not look at the made as part of the maker. This research explores the making of the object itself from the perspective of the maker's tools, materials and processes. Using Artisanal Ethnography and Reflexive Ethnography, the research explores ten artisans and the researcher himself as they create different items in the media of their choice. It explores how those tools and materials influence the maker and the object being made and how this influences the process of making. In the end, the maker joins forces with the making to create a personal experience that is part of the final object.

Keywords: maker, maker movement, Ingold, craft, tools, materials, process, ethnography, artisan, making

Acknowledgements

What an experience this has been. I embarked on this journey with no previous experience at a university level much less at the graduate level. All with a full time job and a family. There is no way I could have done this on my own—for many things, I am thankful.

First, I want to thank my wife. Without her support, this journey toward a graduate degree would have been impossible. To Emmett, Brenna, and Meghan, my wonderful children, thank you for putting up with my never-ending school work and the time I had to spend away from you. I am so grateful to my mom for cheering me on from the sidelines and making sure I was keeping on track and staying motivated.

School would have not been the same without a group of adult learners who were participating in the same craziness I was. To my cohort, thank you for being there for the late night chats, the group work, and the support in doing a thesis. You have been such an inspiration to me in each of your journeys. To Kevin van Egdom, my *Critical Research Buddy*, thank you for talking me down from the frustrations of a thesis and helping me see things differently. There is absolutely no way I would have got through this without you.

Finally, I want to thank my school. Royal Roads has been such a great match for me in this pursuit but it would not have been that way without the supportive professors along the way. First, to Dr. Virginia McKendry—your patience in helping me see research as something that could be more than a paper and connect it to my passion was foundational to this thesis. To my supervisor, Dr. Phillip Vannini—thank you for fighting to supervise my thesis and guiding me in this journey—our shared passion for artisans and making has made this project such a joy to pursue. To Dr. David Black, my second reader—thank you for showing me theory even though I was only able to skim the surface. Without the three of you, I could not have been successful.

The Tools and Materials of Making

The industrial revolution and consumerism have greatly reduced the need for people to make things by themselves; instead we can rather easily purchase everything we require (Dougherty, 2016). However, more and more people are still making objects for reasons other than simple need, reasons such as leisure and the pursuit of skill-development as a means to personal development (Dougherty, 2016). In the growing transdisciplinary literature this process is commonly referred to as making, and those who engage in it are known as makers. As Gauntlett (2018) suggests, the act of making something for one's self or others can often be referred to as craft (p. 30). For many, the term maker and crafter or the art of making and craft are synonymous (Anderson, 2012; Dormer, 2019; Gauntlett, 2018; Hatch, 2014).

For the purposes of this thesis, a maker is one who makes usable objects from start to finish, often by hand (Anderson, 2012; Dougherty, 2016; Gauntlett, 2018; Hatch, 2014; Ingold, 2013). Makers are somewhat different from artists in that the objects they create have an interesting duality. Makers' objects are both beautiful to look at and functional to use, where artists' work is often primarily for display (Dormer, 2019). Makers share many commonalities. As Hatch (2014) outlines, makers are those who make physical things, share what they have made with others, give that object away often at little to no cost, and learn and share with other makers (p. 1). For Gauntlett (2018), making is a form of connecting that brings fellow makers together. Fundamentally, and one of the premises of this research, each maker uses various tools and materials to carry out the making processes.

As a maker myself, I believe our tools, materials and processes all influence our making, regardless of the craft we work in. The final object is not only a useful object but a representation of the relationship we have built with it, often experienced through those tools, materials, and

processes. In my research I explored this relationship driven by the question: how do makers relate to the tools and materials they use and how does this relationship shape their process? I draw inspiration primarily from the relational phenomenology of Tim Ingold (2000, 2011, 2013). Ingold (2013) explores making by emphasizing the importance of the tools and the materials makers use and he argues that the process of making is never complete. He sees making as “a process of correspondence: not the imposition of preconceived form on raw material substance” (Ingold, 2013, p. 31). This process of making never ceases as the world around us is constantly influencing the object. Ingold explores the dialogue between the maker, the tools, and the materials to show that it is not only about the object: the process has just as much value (Ingold, 2011). He suggests we ought to think throughout the entire making process rather than following a devised concept or plan to the letter (Ingold, 2013). By thinking about making from the opposite end, we allow the material and tools to inform the process and thus the object becomes part of the maker; we are *making through thinking* rather than *thinking through making* (Ingold, 2013, p. 6).

In contrast, much of the scholarly research about making and craft focuses on the completed object (Dougherty, 2012; Gauntlett, 2018; Korn, 2013). Such research highlights that the object is either a point of pride for the creator or a useful object used in another manner. The finished product is often studied as an end point without appreciating the process of creation it went through. Ingold (2013) helps us understand there is much more to making than just reaching the end. There is knowledge to be gained from every step of the process and that process may change because of the interaction with the tools and materials. In bringing to light the experiences of makers involved in their making processes, with my research I hope to lead

more people in general and more makers in particular to better understand the work that goes into making objects and, in turn, increase the appreciation of makers and the objects they make.

Method

This research is rooted within the interpretive paradigm as my main assumption is “that no one reality exists separate from our perceptions” (Merrigan, Huston, & Johnston, 2012, p. 37). Using an interpretive approach allows me to take a micro view (as opposed to a macro, societal viewpoint) of the individual maker (Merrigan et al., 2012).

The method I used to carry out this research is artisanal ethnography (Vannini & Vannini, 2019). Artisanal ethnography is an extension of arts-informed research (Cole & Knowles, 2008) and arts-based research (Holm, Sahlström, & Zilliacus, 2018; Leavy, 2015) whereby art becomes both data and representation (Leavy, 2015, p. 232). Artisanal ethnography is “guided by the importance of tactility, the value of skill, and deeply embedded in place” (Vannini & Vannini, 2019, p. 1). Each of these elements is central to answering my research question. While watching the maker create their tactile object, I witnessed the skills they brought to their craft within their own workshop.

Angrosino (2011) states that ethnography is about groups of people and understanding the cultures they create; it is a description of people (p. 1). In order to understand how makers relate to their tools, materials, and processes, I ethnographically approached other makers as they created within their own space. As Korn (2013) points out, making anything involves personal investment in process. In essence, I needed to be involved with the participants in their making. My ethnography focuses on makers in Edmonton, Alberta. Using social media and the assistance of the Alberta Craft Council, I recruited a diverse group of participants with skills sets different from my own. I visited 10 Edmonton makers in their workshops and interviewed them while

they created handmade objects. To view a list of the makers involved in this research, please visit the [participants' area of the website](#) I created for this project. As Angrosino (2011) points out, ethnographic research is “conducted in the field, in naturalistic settings” (p. 53) so I conducted the research within each maker’s own workspace where they created a handmade object representative of their style. Throughout the making process, I asked each participant questions about the tools they used, the materials they selected, and the process they went through.

I audio-recorded each interview while also taking photos of the process. Photography is foundational to arts-based visual research and a very common way to gather data within an ethnographic context (Leavy, 2018). The photographs represent, as data, the process the maker goes through; they are highlighted on the project’s social media and displayed on the research [website](#).

In addition to interviewing other makers, I engaged in a process of self-reflection over my own making activities. The reflexive ethnographic portion of the research—the making of my own handmade object—was also recorded in a similar fashion through photography and audio recording. Photographs and field notes were taken during the entire process and, as additional data points, I [blogged about the object](#). The blog focuses on the research elements themselves (tools, materials, process) and the various challenges and successes I encountered through the building process. The handmade object itself is based on Tom Fidgen’s [A Card Catalogue](#) but modified to fit within the particular genre of [campaign furniture](#), an area of furniture in which I have great interest.

As Merrigan et al. (2012) discuss, analysis in ethnographic research operates in tandem with the production of the data themselves (p. 211). Angrosino (2011) notes “there is no single

formula accepted by all ethnographic researchers that can serve as a strategy for the analysis of data collected in the field” (p. 4). Even though there is no one way of analyzing data in ethnography, deriving themes or thematic categories from the data tends to drive much ethnographic analysis (Angrosino, 2011). Following the process from Flick and Roulston (2014), the interview data within my research was analyzed using an iterative process of reading the transcripts of the audio interviews, deriving themes that emerge from the interviews, reflection on those themes, then writing and rereading to ensure validity (Flick & Roulston, 2014; Merrigan et al., 2012). Using methods such as arts-based visual research does not require any custom analysis techniques (Holm et al., 2018). As such, the created objects, field notes, and photographs were, in similar fashion, analyzed using themes and thematic categories and should be viewed in conjunction with the findings of the interviews (Flick & Marvasti, 2014).

As already hinted, I used various media to share my ethnographic materials. To share the participant data, I have produced a [section of my website](#) that highlights the participants and some of the photos taken during the interview. For each participant, I produced an [audio podcast](#) highlighting important aspects of the interview edited from the audio recordings. Further, my [personal project blog](#) outlines some of the insights and challenges I found as I built my personal piece. Finally, and in homage to arts-based research (Leavy, 2018), I created [Facebook](#), [Instagram](#), and [Twitter](#) accounts to share the images, podcasts, and blog posts with a wider audience.

Interpretation

After interviewing each participant, themes around how the maker experienced their tools, how the material they used influenced their piece, and how the process itself was part of the final object emerged. For some makers, there was a strong connection to the tools they used;

there was a historical or personal element that drew them to their tools. For other makers, the material choice was critical to the process and had a direct relation with their final product. And finally, others were focused on their process. There was, however, one commonality: the final product is not the reason or the drive behind the making—it was their experience *in making* that drove them to create.

Each maker's experience goes beyond the pursuit of a final object. For them, the experience using the tools, selecting materials, and going through the process was just as or more important than the final product. As Ingold (2013) discusses, they learned to *know from the inside*. It was not enough for them to see how something was made by another person: they needed to do the task themselves. At the onset of their artisanal career, each went through a process of “watching, listening and feeling...paying attention to what the world has to tell [them]...that [is how they] learn” (Ingold, 2013, p. 1). Each of those elements is experiential.

By watching the makers complete their pieces, you see how they think through and “join forces” with the objects they create (Ingold, 2013). They do not just construct an object: they make an object through a series of decisions forced on them by the tools and materials they use (Ingold, 2000). As the tools and materials change throughout the process, the maker adapts and experiences the work.

Tools

The relationship a maker has with their tools is important; tools allow makers to move materials from a raw state and create a refined, completed object. A tool can be anything used to modify material to suit the maker's purpose (Ingold, 2000); however as those tools are improved, the purpose and intent are more focused. The skills of the maker increase with their experience

with the tool (Ingold, 2011), but often there is more to that experience than the improvements in quality of the final product.

One such example is Carrie Carbol-Ritcey from [Two Carrots Studio](#). She discussed how many of the tools she uses in her jewellery creation have a deeper meaning and connect her to various points within her career. For her, the hammer from her grandfather reminds her of the times she spent working with him at their family cabin and how making is deep-rooted within her family. Relating to her favourite hammer, Carbol-Ritcey states “When my grandpa passed away, my dad...gave me his hammer as a present. And that is my favourite thing” (James, 2020h). There is also a metal press that connects her back to a former mentor and teacher from whom she learned many of her skills. She even laments about the torch she uses for much of her work being modified and “never the same” after it was used by her plumber husband. For Carrie, the experience of making and using her tools connects her to the past and guides her in future projects.

Shawn Cunningham from [Front Step Forge](#), as a blacksmith, is very connected to his tools; he makes most of them himself. Starting out as a jeweller, he found that he had to make tools in order to make the objects he was working toward. But it is not just a utilitarian need he addresses by making tools. Shawn has great interest in the tool’s history, its use, and making it perfect for the job for which it is designed. For example, each time he creates a hammer, he ensures it is formed so it will perform its function perfectly. As he states in his interview, “...the most essential element is the ability to conceive of what you need, to create the tool, to create to work, to realize your idea” (James, 2020c). He looks at the end-user (his client, often another maker) and what they will use the tool for, and makes suggestions as to how to improve upon the already historical design. Shawn speaks about how different countries have different forms of

tools for similar functions that have evolved with and through their culture and customs. For Shawn, it is never *just* a hammer.

As a glass blower, Todd Safronovich from [Urban Carrot Hot Glass](#) understands the tradition that comes from thousands of years of glass blowing. For him, the tools have changed little over the years, but he sees them as the foundation for what he does. As Todd creates either sculpture or useful objects, he leans on the traditions of the past and embraces the tools the ancient Egyptians used when making the first glassware. As we talked about his relationship to tools, Safronovich discussed a family of tool makers in Italy he had purchased tools from and the respect he had for them. “And so when you’re talking probably a hundred years of this family making tools...there’s so much tradition. And there’s something about being a part of that” (James, 2020i). The tools become second nature for him and, as you watch him work, the tools are extensions of his body. For Todd, the tools allow him to experience the history behind the craft.

Each maker relates to their tools in different ways, but that relationship allows them to experience making on their own terms. The tools have both meaning and give them the means to create. As I worked on my own piece, I discovered how my own tools influenced my making. The tool choices I made were influenced by a desire to simplify my woodworking and use more [traditional hand tools](#). There was no personal or historical connection but the simplification and precision of using hand tools and taking an *unplugged* approach to making has always intrigued me. Where possible, I used unpowered hand tools to create the piece and found, as David Pye (1968) explains, the differences through the *workmanship of risk* and the *workmanship of certainty* (p. 20). When using power tools, there is a certainty in making a cut in wood. The tool is often made to eliminate human error or adjusted to a machinist’s calibration. Once set up, the

tools do their job with *certainty*. With hand tools, the intricacies in use are not dependent on the set up of the tool but rather in the tool user; there is inherent *risk* in using those tools and making a mistake that may ruin the piece. As a woodworker, I embraced this workmanship of risk to put as much of myself into the piece. If I made a mistake, it was because of the experience I had with the piece and the challenges I brought on myself. As I look back at those mistakes, they remind me of the experience of building and shaping the final piece.

In the same way, the participants in my study experienced their making through their tools. Each one has a relationship with their tools and knows the function and task it can accomplish. As Ingold (2011) discusses, there are distinct steps in using any tool (pp. 51-62), and those steps, as subtle as they are, are developed by the maker over time and practice. One rarely picks up a tool and uses it perfectly the first time. It takes the experience through many projects to perfect its use. The maker's attention to the tool and how it is used connects them to their materials, and finally to the finished product (Ingold, 2011).

Materials

Materials are the raw *things* used to make an object (Ingold, 2011, 2013). Properties, Pye (1968) notes, refer to hardness, softness, and workability: those characteristics that are more textile and tangible. As makers, we use these properties to bring out the qualities in the final object such as the beauty, smoothness, and shape of the material (Ingold, 2011). Depending on the medium the maker works in, the material will have a greater or lesser impact on the object. For example, in the case of Urban Carrot Hot Glass, there is one type of glass that Todd uses for his work. While color and texture can be added, the material really does not change. However, for other makers, the material selection is an important part of the decision-making process and must be done with great care.

When Trevor Thistle from [Thistle Pipes](#) selects a wood for one of his hand-crafted smoking pipes, he must ensure that it will look beautiful when completed and not inhibit the function of the pipe. Trevor, an arborist by trade, uses his knowledge of material to make the best decisions for creating his pipes. He states "...woods that make good pipe wood are woods from areas of the world closer to the equator, kind of between the tropics and have a yearlong growing season" (James, 2020g). As he discussed in his interview, he often selects briarwood burl as his main wood for the bowl of the pipe. This wood has the properties to ensure no taste is imparted when smoking and the pipe functions well however, it also has stunning grain to make the pipe visually spectacular. When using an unpredictable wood like briarwood burl, Trevor must react quickly to changes in the material. As he was making the pipe for this project, a bark inclusion appeared, and Trevor needed to respond to that inclusion and decide if he was able to continue with this piece. Because of his skill and experience in making pipes, Trevor was able to expertly include the flaw in the stem of the pipe as a design element.

Cerri Durrant from [It's a Quilty Life](#) has been interested in quilting since her youth. After meeting her future husband and connecting with her future mother-in-law, Cerri was able to dive head-first into quilting. In this craft, the material is foundational to the making. There is the obvious connection to fabric material, but the properties of the material change the entire quilt. Historically, quilts have been made from old, discarded fabrics, but in more modern applications, the fabric's properties and qualities are an important part of the decision making. The patterns Cerri selects tell the story she wants to express in her quilt. In the quilt she made for this project, the material had specific meaning for her and her husband and was based on their Scottish roots. Durrant, in talking about the flexibility of quilting, says that "you can do anything and [have] any kind of inspiration...the blocks already exist but I can change the colours [to] make this look

older using vintage reproduction fabrics from the 1800's" (James, 2020e). The process of selecting the perfect colours, patterns, and textures of the material for her husband was part of the experience of making the quilt. In her sewing room, the tools are secondary to the material she uses.

Slow fashion is the foundational term used to describe why Holly Aamot from [False Holly](#) processes her yarn from scratch. Slow fashion refers to purchasing or producing clothing to reduce the impacts to the environment and understand where your clothing was made (Modiano, 2019). When discussing slow fashion, Aamot loves using locally sourced materials and feels "the essence of slow fashion is having things...as local...and as connected to the process as possible" (James, 2020b). It has the added benefit of being of higher quality with the hope of lasting longer, which, in turn, contributes to slow fashion. Holly selects the wool from sources she knows and, when possible, goes to the farm to participate in the collection. She then dyes the wool and processes it by carding and spinning it into yarn for her project. Holly understands each step of the process and controls how the material is made to create a truly farm-to-table knitwear.

The materials we use as makers to create our useful objects are key to the final product. As Pye (1968) outlines, the properties and qualities of the material are critical to how the final piece looks and feels to the person holding it. As a woodworker, I select wood based on its hardness, colour, durability, and grain pattern in order to bring the concept I have in my mind to fruition. Understanding how a piece of wood will react when connected to another piece of wood, how the colour will translate when finish is applied, and how it will change over time are all decisions that must be made. As well, with wood being a natural material, it may change throughout the process according to how it reacts to its environment. I must be able to react to

those changes and, in many cases, [problem solve](#) how to correct an issue. For example, I started my piece in the early fall in 2019 and worked through winter. In the spring of 2020, I found the bottom board had warped due to changes in the environment. I had to decide how to handle that change and how it would affect my progress.

Materials also impact how others may experience the final piece. The choice of material may be selected for a specific reason. Perhaps the wood was from a special tree or the wool from a certain special animal. In my own project, the materials were connected to the history and style of the piece I was building. While the overall concept was based on another artisan's plans, [the campaign style](#) I was interpreting this piece in called for specific [woods and hardware](#). For this project, I decided on walnut and teak as the primary, visible woods and used traditional campaign hardware cast in brass. For my own personal expression, I used curly maple for the drawer sides. As I finish the piece, I am reminded of the historical context of why the campaign style was developed (Schwarz, 2014) and why I selected these specific materials. In this case, the portability and durability of the pieces were just as important as the visual appeal.

Materials can also connect us to our values. Many times, material selection is a way to communicate views on such values as material consumption and environmental conservation, as with Holly Aamot from [False Holly](#). More and more, makers are interested in knowing exactly where their material comes from, in using materials that have specific meaning, or using recycled material to reduce environmental impact. As Gauntlett (2018) asserts, the act of making, and in turn, the materials we make with, allow us to connect with the world around us. This act of *craftivism*, as Orton-Johnson (2014a) states, combines craft and activism to connect two worlds and enhance the experience of the piece itself; there is more meaning because we know where the material came from and the pieces reflects our values.

Process

What happens when tools and materials are secondary to what you create? In those cases, the process becomes the focus for the maker. The act of changing raw materials into something useful using tools becomes the inspiration. As Ingold (2013) states, “Making...is a process of correspondence: not the imposition of preconceived form on raw material substance, but the drawing out of or bringing forth of potential immanent in a world of becoming” (p. 31). This drawing out takes the artisan from beginning to the end through a process of exploration. For the artisan, this means not always knowing what the final product will be but experiencing the changes, decisions, and interpretations that come from making.

All makers start somewhere be it an interest in craft, a notion that they can make something just as easily as buying it, or perhaps a resolve to be more productive with their time. Kassandra Jesso from [Kay's Gem Creations](#) is relatively new to the maker world, but embraces the learning process as she makes. For her, each new gemstone creation is an opportunity to learn a new skill or try a new technique. She thrives on the detail and intricacies of working in such a small medium. Kassandra's favourite pieces include “...the detailed work and involved pieces, which is what I really like to do” (James, 2020f). As she progresses further into her making, more complex and detailed designs become the pursuit; Kassandra looks for new challenges as she matures in her craft.

As I searched for participants in this project, I distinguished artists from crafters by the type of work they created. I focused on artisans who created *useful* objects and avoided sculptors, painters, and other makers in media that had as their primary purpose artistic interpretation or display. I found [Industrial Growth](#) and Maggie Slater through Instagram and quickly discovered she is a combination of both artist and crafter. In the interview with her,

Maggie discusses how the lamp she built is about both art and how to position a useful object as an artistic work. Similar to Ingold's (2013) interpretation of making, Maggie does not know what the final object will be but rather is on a journey with it through the process. When she begins a piece, she does not approach it with planning but states that "...I just go with the flow of a piece. I kind of let it decide how it gets built" (James, 2020d). Even though her materials are often recycled and used by necessity and the tools are merely a means to create, the process of creation is why Maggie is a maker.

KJ MacAlister from [Viva Clay Works](#) is focused on process. In our interview, KJ talked about how the clay material she uses is one of a few different types, and how the tools she uses can be as simple as a toothpick or credit card. Pottery is a very primitive form of making where tools and materials are secondary. For her, the process and the manipulation of process are critical to how the final piece is finished. Controlling every step in the process from the consistency of the clay, the process of throwing and spinning the clay into a mug, the connecting of the handle, and finally drying the piece to be ready to fire are critical to having a consistent, practical object. As she creates the mug, her years of experience in pottery are apparent in each step. During the interview, KJ showed me a different piece fired using a wood-burning kiln. She explained that all the control of process was released in the wood-firing process. For her, "the simple presence of ash makes a huge difference. Ash makes its own glaze...and it makes its own patterns on pots and the fire itself makes a pattern on pots" (James, 2020j). All the attention to detail and all the control KJ puts into the process of making were released and left to chance when she placed a piece of pottery into the wood-fired kiln. The ash, the flames, and the heat all create uncontrolled impressions on the piece, and KJ is forced to let go of the control.

Makers are often entrepreneurs (Holmes, Greenhill, & McLean, 2014; Jeffcutt & Pratt, 2002; Wolf-Powers et al., 2017). Kyle Closen from [Clos General Leather](#) took his passion for leather work from a hobby to a fulltime business. Highlighted in Kyle's podcast was his shift in focus from making as a hobby to running a successful business; the constant, for him, is the passion for process while making his quality leather goods. Kyle embraces the maker mentality of cooperation and sharing (Dougherty, 2012; Korn, 2013) and does all he can to further the maker community. The experience he had as an early craftsman drives his own support of new makers. Kyle believes "it's really important to give other people the opportunity that are just getting into it. I can't teach you everything but I can guide you in the right direction" (James, 2020a). As Kyle grows his business, he has embraced the maker movement and culture to give other craftspeople the experience they need to learn and to progress in their craft.

As a maker, I have encountered times where the materials are defined by the medium and rarely change; there are also times where the tools used are defined by necessity. In these cases, the process becomes the primary driver and the reason why a maker creates. As I worked my way through building the card catalogue, I took an approach similar to how Ingold discusses making. He sees it as a process of growth where the maker is an active participant in the process rather than the completer of steps in a plan (Ingold, 2013, p. 21). In his view, the maker *joins forces* with the materials to create an object that is truly unique (Ingold, 2013).

The project plan was different from what I envisioned as the final object, which is different than what the actual object would become. As I worked through the process, minor and major modifications were required in order to move forward. By joining with the piece, my experience in building it will forever be part of the object itself. When I look back at the choices made to interpret this piece in the campaign style, it becomes part of me and my work. I made

changes to the plans, specifically the base, in order to be true to the style I was interpreting. I can revisit those choices as I look at the finished piece and remind myself why I changed a particular area or chose to make the base in a particular way. In the end, the object is what I wanted it to be and was a reminder of each step in the process of making. The drawers, the stand, and even the case, remind me of each change, mistake, or victory that occurred as I worked. For all makers, the drawing out of that final object through decision, challenge, change, and interpretation allow the maker to create a piece uniquely made by them (Ingold, 2013).

For many makers in my study, the process of making is tied to their very being. Often, it is the process that drives makers to create: the coming together of tools and materials to create a final piece that is completely different from the raw material. It may be a useful object or even an artistic piece. But the process the maker goes through from idea to completion, and every iteration in between, allows the maker to experience their piece differently than others. They see the process they went through to get the object where they are satisfied with it and are able to look back at each step with pride.

Conclusion

As outlined in the [podcasts](#) and above, each maker embraces their tools, materials, and process, and each of these impacts the maker's making. For some, only one may be the larger influence on the final object, but in others it could be all three. What is consistent with each maker is how they experience the making. It is not just about the final piece for the maker. If that were the case, the handmade industry would be constantly driving to mechanization and automation. What we see is more handmade, intentional making (Orton-Johnson, 2014b).

This movement towards the handmade and craft culture is driven by many reasons. It could be for leisure, for art, or for economic issues (Campbell, 2005; Fuchs, Schreier, & Van

Osselaer, 2015; Karppinen, 2008). However, makers are doing more than just creating useful objects to sell or display; making is an experience unto itself that is just as or more important than the final object. It is part of who they are as a maker.

Each participant in this research made an item of their choosing to showcase their craft. This item, while useful in its own right, has memories associated with it for the maker, materials selected specifically for the object, and the tools used influenced its creation. Each item has a genesis where the maker joined forces with the material and experienced its making with it (Ingold, 2013). When they look back at the item, they will see its final state, but also remember the experience of making it.

As the maker movement weaves itself into our economy, we need to understand what goes into the creation of handmade objects. The industrial revolution changed our thinking of how objects are produced and, in turn, what they cost (Dougherty, 2012). Large-scale production has driven the cost of items like furniture, tools, and glassware to levels that make handmade goods impossible to be profitable (Anderson, 2012). By understanding the experience and what goes into the handmade object, the appreciation and value of handmade goods will increase.

As our society changes and, in some ways simplifies, the prevalence of maker faires, craft shows, and farmers' markets will continue to grow (Anderson, 2012; Dougherty, 2012; Frauenfelder, 2010). By knowing what a maker goes through and how they join with the objects they create, the consumer of these goods may be more respectful of the quality of a handmade item and accepting of the cost.

In the same way, when I look back at the furniture piece I made for my personal project, I will see the [material I painstakingly selected](#), each [problem I solved](#) as it arose during the build, and [each tool I used](#). I will remember [why I chose the project](#) and how I decided on [how much to](#)

[spend](#). I will remember embracing the workmanship of risk (Pye, 1968) when I see the flaws in the wood and the mistakes I made when I let my attention drift. I will remember seeing the change of the wood when applying the first coat of shellac and knowing what the final piece might look like. There will be more to this piece for me than anyone else because I experienced the making.

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