

Clothing the Medieval Body: A Reconstruction of the Pourpoint of Charles de Blois

by

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Abstract

This thesis investigates a particular surviving medieval garment, the pourpoint of Charles de Blois, from the perspectives of its maker(s) and wearer(s) by making a reconstruction and having a participant wear it. This rare and unique garment is held at the Musée des Tissus in Lyon France, and, like many garments held in collections, is subject to institutional restrictions on its handling. Making a reconstruction provides an opportunity to consider this object as a product of both the maker's knowledge and the wearer's bodily experience of the garment. Using a reflexive, embodied-knowledge methodology, a reconstruction of the pourpoint was hand-sewn using a c. 1980 pattern. The resulting reconstruction was worn by a participant who completed self-directed wear periods, a mobility trial and a semi-structured interview that aimed to better understand his subjective wearing experience. Through the combined, embodied processes of making and wearing a reconstruction of the pourpoint of Charles de Blois, a deeper understanding of this garment as intimately related to the embodied craftsmanship of the maker and the needs and experience of the wearer is developed.

Preface

This thesis is an original work by Katelin Karbonik. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Clothing the Medieval Body: A Reconstruction of the Pourpoint of Charles de Blois,” No. Pro00093608, May 6, 2020.

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Preamble

A Brief History of the Pourpoint of Charles de Blois and its Alleged Owner

The pourpoint of Charles de Blois (1319-1364)¹ is a rare, surviving fourteenth-century garment currently held in the collections of the Musée des Tissus in Lyon, France. It is purported to have belonged to Charles de Blois, who was killed in battle on September 29, 1364, in a struggle for the throne of Brittany.² Soon after his death, Charles de Blois was partially canonized due to his extreme piety and cultural importance to the Breton people.³ It was approximately at this time that the pourpoint entered into the care of a convent in Angers, France (then a part of Brittany).⁴ A parchment label affixed to the garment and dating to approximately the time of de Blois' death indicates that the garment, alongside a now-lost hair shirt (*haire*), belonged to de Blois.⁵ This is the only known physical evidence connecting the pourpoint to de Blois. A second label dating to the seventeenth century reiterates the first message, this time omitting the hair shirt.⁶ The pourpoint allegedly remained in Angers until the French Revolution.⁷ Already over 400 years old, it traveled from collector to collector until 1907, when it came into the possession of a collector named Julien Chappée.⁸ In 1924, the garment was donated to the Musée des Tissus in Lyon, France, where it has lived ever since.⁹ In the late 1970s and early 1980s, it went through a significant conservation treatment whereupon it was wet-cleaned and mounted on a custom-built mannequin by the Musée's head conservator, Marie Schoefer.¹⁰ It is in this form that the pourpoint is currently held by the Musée des Tissus.

¹ "Charles de Blois," The British Museum, accessed October 30, 2020, <https://www.britishmuseum.org/collection/term/BIOG170863>.

² Laurence Moal, *Auray 1364 : un combat pour la Bretagne* (Rennes: Presses universitaires de Rennes, 2012), 11.

³ A. De Meyer and Ét Van Cauwenbergh, *Dictionnaire d'histoire et de géographie ecclésiastiques*, vol. 9 (Paris: Letouzy et Ané, 1937), 225-228.

⁴ Louis de Farcy, *Le Pourpoint de Charles de Blois*, Collection J. Chappée (Le Mans: de Benderriter, 1910), 1-3.

⁵ de Farcy, 12.

⁶ de Farcy, 13.

⁷ Robert de Micheaux, "Bulletin des musées et monuments Lyonnais" (Lyon: Association des Amis du Musée de Lyon, 1952), 66.

⁸ de Farcy, *Le Pourpoint de Charles de Blois*, 9.

⁹ Maximilien Durand, "Pourpoint de Charles de Blois (MT 30307)" (Musée des Tissus de Lyon, n.d.), accessed November 14, 2018.

¹⁰ Marie Schoefer, "Rapport de restauration no. 2" (n.d.), MT 30307, MTMAD Object Files, passim.

Chapter 1: Introduction

The aim of this research is to explore the cut and construction of a particular garment: a fourteenth-century pourpoint¹¹ alleged to have belonged to Charles de Blois (see Figure 1), from the perspective of its maker(s) and wearer(s).¹² While the provenance cannot be verified, I will describe it as belonging to de Blois in my work. To conduct the research, I will create a reconstruction¹³ of the pourpoint using information gathered from its files at the Musée des Tissus and other research sources. In order to investigate a wearer's perspective, the reconstructed pourpoint will be worn by a model to observe the garment on a moving body. In doing so, a more holistic understanding of the pourpoint's body-garment interactions will be developed, one that includes experiential considerations regarding the maker(s) and wearer(s). This research will explore the cut and construction of the pourpoint as a product of both the maker's knowledge and the wearer's bodily experience of the garment.

¹¹ Defined as “[a] quilted doublet worn by men in the 14th and 15th centuries as part of civil costume and of armour.” *OED Online*, s.v. pourpoint, accessed February 5, 2020, <https://www.oed.com/view/Entry/149083?rskey=uH6cFF&result=1&isAdvanced=false>.

¹² The actual number of makers and wearers is impossible to assess.

¹³ To reconstruct is defined as, “to recreate or reimagine (something from the past) especially by using information acquired through research.” *Merriam-Webster Online*, s.v. reconstruct, accessed January 30, 2020, https://www.merriam-webster.com/dictionary/reconstruction?utm_campaign=sd&utm_medium=serp&utm_source=jsonld.



Figure 1. Pourpoint said to have belonged to Charles de Blois, silk, linen, and gold lampas textile, plain weave linen, and cotton padding. Possibly made and worn in Brittany before September 29, 1364. Musée des Tissus in Lyon, France. © Lyon, musée des Tissus – Pierre Verrier.

Garments are typically designed for moving bodies, a fact that is obscured when garments enter museum collections. Whether stored flat, draped on hangers, or displayed on a mannequin, the original relationship of the garment to a moving body is typically lost to visitors, researchers, and museum workers alike. This particularity of modern museum practices protects the garment from further damage from wear, but, in consequence, causes certain information intrinsic to these objects to be lost.

The main research question of this project is: “What can we learn about body-garment interactions through a case study on the pourpoint of Charles de Blois? The secondary question that helps us address the main question is, “Can the combined processes of making and wearing a reconstruction pourpoint help to understand body-garment interactions?” In undertaking this research, an understanding of medieval men’s fashion and body-garment interactions are key. Overall, I aim to address a symbiosis seldom tackled and, in the process, better understand a specific artifact as well as shed light on the role of moving bodies in the creation and understanding of historic dress.

The pourpoint is housed at the Musée des Tissus in Lyon, France. It is over six hundred and fifty years old and is an exceptional material survival from fourteenth-century Brittany, at

the time a semi-independent duchy west of France proper.¹⁴ During its time at the Musée des Tissus, it was mounted permanently¹⁵ on a custom-built mannequin, so that, unlike many garments found in museums, its three-dimensionality and relationship to the body is immediately evident (see Figures 1 and 2). Unmounting it would put significant stress on the garment, and is therefore unlikely to occur, especially in the context of this research project. There is, to my knowledge, only a single other garment termed a “pourpoint” surviving in museum collections. Held in the Musée des Beaux-Arts de Chartres, this garment is a padded jacket with a narrow waist and bulging chest similar to the pourpoint of Charles de Blois.¹⁶ However, while both pourpoints are exceptional, they differ significantly in cut, making the artifact at the centre of this research a singular garment.

¹⁴ Michael Jones, “The Crown and the Provinces in the 14th Century,” in *France in the Later Middle Ages*, ed. William Doyle (Oxford University Press, 2006), 76–77. Brittany was a politically important area due to its geographical proximity to England and its ports, and both French and English monarchs sought to ally themselves with the duchy (see Jones, 76-77).

¹⁵ The mount was conceived as a permanent support system for this garment to reduce handling and reduce strain on as many parts of the garment as possible. To my knowledge, the pourpoint has not been sewn down to the support, and could therefore be removed if required. In order to preserve the pourpoint, this is unlikely to happen in typical circumstances.

¹⁶ Elizabeth Coatsworth and Gale R. Owen-Crocker, *Clothing the Past: Surviving Garments from Early Medieval to Early Modern Western Europe* (Leiden : Boston: Brill, 2017), 263.



Figure 2: Pourpoint of Charles de Blois, $\frac{3}{4}$ back view. © Lyon, musée des Tissus – Pierre Verrier.

The pourpoint of Charles de Blois is an outstanding artifact to study due to its rarity and the wealth of information associated with it at the Musée des Tissus. Having had the opportunity to see this garment in person in the summer of 2019, I was able to gather a significant portion of data that facilitated this research project. Alongside access to substantial curatorial and conservation files, I was given permission to copy a c. 1980 pattern that was taken off of the garment by its conservator, Marie Schoefer (1953–2020),¹⁷ during a major conservation endeavour that saw the garment wet cleaned and permanently mounted onto a custom-built mannequin.¹⁸ It was during this process that Schoefer took a pattern of the garment, a feat that would have been difficult for me to accomplish as I was not permitted to touch the pourpoint and because it should not be unmounted for conservation reasons. The permanently-mounted state I observed the pourpoint under meant its interior was hidden from view, and will likely remain so under most circumstances. As a result, I could not touch or measure the piece to create my own pattern but was able to use the Schoefer pattern and the associated files collected at the Musée des Tissus to help contextualize the artifact and to fuel my reconstruction process.

¹⁷ Catherine Sarramagna, e-mail to author, November 7, 2020.

¹⁸ Schoefer, “Rapport de restauration no. 2”, passim.

The cut of the pourpoint is an important focus of this project. The literature review in Chapter 3 will expose how it is symptomatic of men's fashionable dress in the mid-fourteenth century (see page 28). It originates at a critical moment in fashion history when the looser-cut clothing that had dominated for centuries was giving way to body-delineating, tailored garments for men.¹⁹ Specific aspects of this more body-conscious cut, including its fitted, *grande assiette*-style sleeve (i.e. large-plate style sleeve)²⁰ and bulging chest, can be seen depicted in such illuminated texts as *Le Roman de Giron le Courtois* (see Figure 3 and note the bulging chests, narrow hips, and length of the upper body garments depicted). Moreover, the cut of the pourpoint differs in important ways from today's garment-cutting conventions. Investigating the cut of this garment can bring unique findings to light about the creation of garments for bodies in action. In addition to being rare, the pourpoint of Charles de Blois is a historically relevant example of a distinctive approach to garment cutting.

¹⁹ Mary G. Houston, *Medieval Costume in England and France* (1939; repr., New York, N.Y.: Dover Publications Inc., 1996), 72.

²⁰ Maximilien Durand, "The Pourpoint of Charles de Blois," in *Fashioning the Body: An Intimate History of the Silhouette* (New Haven and London: Yale University Press, 2015), 47. Durand describes these sleeves as having "armholes [which] were cut out up to the neck and under the arms, halfway down the ribcage. Triangular gores of added fabric on the front, back, and underarms enlarge the armholes and facilitate movement," (see Durand, 47).



Figure 3. Manuscript detail, *Roman de Giron le Courtois*, Italy, c. 1370-1380, Folio 49v. From the Bibliothèque Nationale de France (NAF 5243), <http://archivesetmanuscripts.bnf.fr/ark:/12148/cc408321> (scroll down to access the full manuscript).

The Schoefer pattern enables a reconstruction that would otherwise require many more steps and greater access to the original object to obtain. One of this pattern's strengths is that it was taken by someone intimately familiar with the pourpoint, including both its interior and its exterior. However, no pattern is perfect, particularly when taken off an existing garment that has been worn and distorted over time. Garment construction expert and conservator Betty Kirke faced a particularly difficult version of the problem of fabric distortion in garments when taking patterns off of French fashion designer Madeleine Vionnet's designs, which often incorporated bias-cutting techniques that make use of the inherent stretching capacities of woven fabric. In her research, Kirke measured individual warp threads for each pattern piece and measured weft threads that intersected the warp at regular intervals to reconstitute the original, undistorted pattern pieces (rather than measuring the pattern outlines that suffered distortion in the making

and wearing processes), a time and labour-intensive process.²¹ Even under ideal circumstances, deviation from the actual dimensions of the garment pieces is inevitable and it is likely that two people using the same technique would produce different results. Moreover, it is impossible to know exactly the method Schoefer used to create the pattern, which impacted her results. Even so, the Schoefer pattern from the Musée des Tissus is a unique contributing factor to this project as it offers opportunities alongside limitations when studying the pourpoint of Charles de Blois through the making and wearing of a reconstruction garment.

Studying the pourpoint in its current mounted state leads to greater awareness of the implications of the body on this project. A major missing element to this project is knowledge of the original wearer and his body. The lack of the original body (or that of any additional wearers) is an inherent characteristic of artifacts in costume collections, but this absence is not often mentioned in studies on dress history. Was this garment custom made for a particular person? The complexity of this garment's articulation of various body parts suggests that this was the case. This complicates the current research process because even a perfect reconstruction requires the body of the original wearer to truly understand body-garment interactions. It is also possible that the original garment fit poorly, or it could have been altered to fit a changing body or a new owner. In any event, the choice of a participant to wear the reconstruction pourpoint introduces indeterminable variables into the research process through the unique articulation of his body and its indeterminable differences with the body of the pourpoint's original owner(s).

A second complicating element is the impact of the Schoefer pattern on possible body-garment interaction analysis. According to the museum object file, the Schoefer pattern was taken in order to construct the support mannequin after the pourpoint was cleaned.²² For this reason, it is plausible to think that the pattern was taken from the interior, however this is unknown. This technique would likely lead to a more accurate pattern for a mount (which is itself a surrogate of the wearer's body), as the lining pieces are closer to the dimensions of their corresponding body parts. However, a lining pattern may differ from the outer layer pattern, especially in the case of a padded garment such as the pourpoint. Moreover, how closely could a

²¹ Betty Kirke, "A Dressmaker Extraordinaire: Discovering the Secret of Madeleine Vionnet's Creativity," *Threads*, 1989, 70.

²² Schoefer, "Rapport de restauration no. 2," 3.

modern body be expected to reflect or behave like a medieval one? Posture and behaviour have a cultural element that can change over time.²³ An aspect of this research could be identifying postures and motions relevant to this period in history. However, the lack of information about the original body (or bodies, if the garment was modified and/or passed on to subsequent wearers) that wore the pourpoint introduces inevitable inaccuracies into the analysis and it may prove more fruitful to focus on basic postures and movements of the body. Garments in museums are categorically separated from their former bodies, an often unacknowledged fact that is particularly pertinent in this research project, which seeks specifically to interrogate the interactions between a body and a reconstruction of the pourpoint. Part of the interest of this project comes precisely from the epistemological tension resulting from the study of this unknowable, embodied aspect of the pourpoint's history, which is evident when observing its interesting manner of delineating the body, as hinted by its mounted state.

British costume, stage, and production designer Jenny Tiramani engages in reconstruction projects involving the body in her research on historical dress. Garments are complex types of material culture objects with many layers of significance. Many people undertake reconstructions of historical garments for varying reasons: theatre, film, living history, re-enactment and academic research, among others. Each of these purposes has different priorities and levels of accuracy, and will approach reconstruction differently. For example, some reconstructions aim only to capture an aesthetic with little regard given to historical accuracy. This is not the case for Tiramani: she aims for accuracy in materials and construction techniques and uses her knowledge as a maker to learn more about history and craftsmanship methods of the past. However, as discussed previously in regards to the Schoefer pattern, a reconstruction can never be completely accurate and will always diverge from the original in important ways. In the 2015 publication *The First Book of Fashion: The Book of Clothes of Matthaeus and Veit Konrad Schwarz of Augsburg*, Tiramani's reconstruction did not have the benefit of an existing pattern or even of a specific surviving garment. Her work was supported by academic research on the sixteenth-century dress diary of Matthäus Schwarz. Working from only a painted image of a particular outfit, Tiramani engaged in a significant amount of research into dress of the period.

²³ Gordon W. Hewes, "The Anthropology of Posture," *Scientific American* 196, no. 2 (February 1957): 123.

Consulting historical units of measurement, paintings, tapestries, carvings, and extant garments, Tiramani's research attempted to put together how Matthäus Schwarz's outfit may have been patterned and constructed in early sixteenth-century Augsburg, Germany. Using this data, she then patterned and constructed it expressly to be worn by a particular model.²⁴ While limitations related to her use of a small painting undoubtedly exist, her approach still resulted in a more academic reconstruction project that prioritized historical accuracy and enabled Tiramani to draw conclusions related to the craftsmanship of the original outfit—in doing so exploring the perspective of the original maker—and how it may have impacted the appearance of the body it was made for. In this way, Tiramani's approach will be able to inform my reconstruction, whose purpose is to understand the historical bodies of the maker(s) and wearer(s) of the pourpoint.

Even while I have similar historical-accuracy and academic purposes, my reconstruction project differs fundamentally from Tiramani's work in significant ways. The most significant is that the pourpoint of Charles de Blois has survived and has been studied from a multitude of approaches. I have access to many decades of information about the garment I am recreating through its object files, including the Schoefer pattern. Compiling and critically assessing materials relevant to this project will help inform my research. Direct access to the artifact was possible, which was not the case for Tiramani's Schwarz research. I took detailed research notes during a week-long appointment studying the garment in June 2019. As such, I am not starting with a depiction of an object as Tiramani did with the Schwarz outfit. Even so, I intend to use some of Tiramani's methodological approaches, which I will describe in Chapter 4. By researching and accounting for my decisions in cutting and constructing my reconstruction pourpoint, I aim to push boundaries of knowledge on body-garment interactions and, in the process, on a specific example of fourteenth-century garment. Acknowledging that a reconstruction necessarily contains inaccuracies, I created a foundation for interrogating how garments like the pourpoint may have impacted the mobility of its wearer(s). Following the research, I was able to better understand a particular medieval pourpoint and its impact on the body. I believe a focus on the making process and principles of mobility in clothing can serve as

²⁴ Jenny Tiramani, "Reconstructing a Schwarz Outfit," in *The First Book of Fashion: The Book of Clothes of Matthäus Schwarz and Veit Konrad of Augsburg*, ed. Ulinka Rublack and Maria Hayward (Bloomsbury, 2015), 377–81.

a foundation of this investigation, in a similar way that Tiramani's work has helped to push boundaries of knowledge for sixteenth-century male garments.

In my research, I looked at the way the pourpoint of Charles de Blois interacts with both the body of a maker and that of a wearer by using reflexive research methods. To do this, I reflected on my own twenty-first-century biases and assumptions and how these may affect my reconstruction of the pourpoint. The garment produced was worn by a participant who also contributed his own thoughts and experiences. These individual perceptions can allow a better understanding of the garment's structure, how it may have been impacted by the hand-making process, and how it interacts with the moving body of the wearer. Through these bodily interactions, an understanding of body-garment interactions from the complimentary activities of making and wearing was developed. In this project, I bring together research on historic dress with research on the body-clothes unit, which requires an exploration of mobility and comfort. I thus make a case for how the making and wearing of historic dress are two crucial, inter-related aspects of the life of clothing that are often lost when garments are moved into museum collections.

The research is situated in the field of material culture and the current document is divided into six parts to reflect the more holistic approach this entails. The work begins with a general description of my research in Chapter 1. Access to the object has shaped the research project immensely. Deviating somewhat from traditional structures, I present a "thick" description of the pourpoint in Chapter 2. Anthropologist Clifford Geertz, expanding upon the ideas of Gilbert Ryles, defined a thick description as being a description incorporating context and interpretive meaning, giving a fuller understanding of the phenomenon rooted in a particular cultural context.²⁵ Chapter 2 is thus included to help the reader understand the particularities of the object from its materiality and its position as a museum object. From this point, the reader can begin to understand the pourpoint as a piece of material culture originating in medieval Brittany, which informs the literature review presented in Chapter 3. In that chapter, I will survey relevant existing literature surrounding material culture research, pattern making, and mobility in clothing, and men's fashion in the fourteenth century. In Chapter 4, I will detail the

²⁵ Clifford Geertz, "Thick Description: Towards an Interpretive Theory of Culture," in *The Interpretation of Cultures: Selected Essays* (New York, N.Y: Basic Books, 1973), 6.

methodological approach and methods for this project. The work aims to be a scientific, context-sensitive, material culture investigation that will be followed by research findings and their interpretation that make use of and reflect the unique nature of the data in this project (Chapters 5 and 6).

This project is, at its core, an object-based research project with an experiential or embodied learning component. Therefore we begin with a detailed or “thick” description of the object in question. As will be discussed later, object-based research often begins with careful observation of the object wherein the researcher attempts to observe without interpreting. By including a thick description before the literature review and methodology sections, I hope to encourage the reader to consider the point of Charles de Blois in an observational way. A written description is not a substitute for in-situ observation, and my description is modulated by my own perspective as a dress historian and theatre costuming professional. With this thick description in mind, the literature review and methodology sections will begin to suggest ways this garment can be interpreted as a research object.

Chapter 2: Thick Description of the Artifact

This chapter provides a detailed description of the pourpoint of Charles de Blois focusing on its materiality and its silhouette in relation to the body. This description was developed using Jules Prown's approach to object-based research, and Ingrid E. Mida and Alexandra Kim's "slow approach to seeing," a way of carrying out object-based research that encourages consciously slowing down during object analysis in order to attune the researcher's attention to the subtle clues embedded in textile objects.²⁶

The description was developed primarily during a five-day research appointment (June 3-7, 2019) in the Musée des Tissus' conservation department, as well as from several months of pre- and post-access research, the former relying primarily on information associated with the artifact available on the Musée des Tissus' website and the latter based on field research observation and access to the entire object file.²⁷ While this proposed research addresses relevant aspects of medieval men's fashion, the crux of this project remains body-garment interactions as explored through the reconstruction and wearing of a particular garment. Beginning with a brief description of the pourpoint of Charles de Blois' materiality and silhouette, this section draws out some details of its construction. Overall, this descriptive section seeks to create a vivid picture of the pourpoint as drawn from my field research at the Musée des Tissus in Lyon.

The first thing one notices upon encountering the pourpoint in person is its size and shape. In the images available online the garment appears very slender. However, in person, this is revealed to be a distortion of reality. The pourpoint is strikingly large, athletic, and masculine in proportion, at 0.87 meter high (see Figure 4). Without knowing what a pourpoint is, it is still possible to see that the garment is meant to mold closely to the upper body of a person: there are two fitted, curved sleeves with large, closely-spaced buttons from wrist to the mid-upper arm, a round neckline, and fitted torso with a curving centre front closed with a long row of large, closely-spaced buttons. Besides from the curving centre front, the structure of the garment remains somewhat similar to men's upper-body garments common today. Even so, several

²⁶ Ingrid Mida and Alexandra Kim, *The Dress Detective: A Practical Guide to Object-Based Research in Fashion* (London: Bloomsbury Academic, 2015), 33.

²⁷ Maximilien Durand, "Pourpoint de Charles de Blois (MT 30307)," 1-2. Object file no longer available online but can be produced for verification purposes.

aspects of the pourpoint differ in shape from modern male dress: the fitted and shaped sleeves with buttons from wrist to the upper arm, the broad shoulders, and the curving centre front closure with a long row of large, closely spaced buttons that emphasizes the wearer's bulging chest and narrow hips. Upon closer inspection, it appears that at least some of the fabric button coverings are not the same as the eagle and lion outer fabric, a fact confirmed in the conservation report.²⁸ The corresponding buttonholes are sewn in green thread, stitched deeply enough to contrast with the gold and cream of the main fabric. The centre front buttons are round above the waist and flat below, which helps to accentuate the bulging chest area. The size and shape of the garment convey the build of a man and, from a twenty-first century perspective, a sense of athleticism through its body-moulding style.



Figure 4. The pourpoint on its mount beside the author (who is 165 cm tall). Photograph by © Anne Bissonnette.

The main, fashion fabric of the pourpoint is another point of difference with modern menswear. Woven in a compound “lampas” weave structure and said to have been imported from the Middle East,²⁹ this fabric has two sets of warps yarns (a cream coloured silk set and an undyed linen set) and at least two sets of weft yarns, including an especially ornate gold-wrapped

²⁸ Schoefer, “Rapport de restauration no. 2,” 2.

²⁹ The silk, linen, and gold lampas fabric has been subject to a great deal of research since its entry into the Musée des Tissus and it is beyond the scope of this work to address this corpus of knowledge. According to the object's file at the Musée, the fabric was originally created in Irak or Iran (see Maximilien Durand, “Pourpoint de Charles de Blois (MT 30307).”)

linen yarn.³⁰ These gold yarns are, in fact, composed of 99% pure gold leaf glued to a thin animal membrane that was cut into strips and wrapped around the core linen yarn, called *baudruche* yarns.³¹ To the bare eye, the gold appears tarnished across much of the garment, with a few areas appearing clear and brilliant. The gold yarns are woven into interlocking octagons, each filled with an animal motif. In the interstices between the two lines forming each octagon is what appears to be a small floral motif (see Figure 5 and Appendix 1). In each octagon, there is either a bird with spread wings or what appears to be a lion. These animals alternate both vertically and horizontally, as for colours on a checkerboard. Horizontal rows also alternate the profiles of creatures: if one row has beasts with a profile facing left, the next row will feature beasts facing right. The maker cut the fabric so that all the creatures' feet are facing the floor on the main body of the garment (front and back pieces) and sleeves of the garment. The use of such an ostentatious and decorative fabric has very few parallels in the textiles used in modern menswear.



Figure 5. Detail of back right hem showing conserved area of loss (new solid colour underlay) and fashion fabric motifs. Photograph by © Katelin Karbonik.

Patterns of use and other damage on the garment can be seen on the cream and gold lampas fabric. Several areas of loss are visible: some appear very organic, such as the abrasion

³⁰ Maggie Baum and Chantal Boyeldieu, *Dictionnaire Encyclopédique des Textiles*, 3rd ed. (Paris: Groupe Eyrolles, 2018), 351. A lampas fabric is defined as having two or more sets of warp yarns, one of which is a thicker “ground” set, with the other, finer set serving to anchor the visible weft yarns (see Baum and Boyeldieu, 351).

³¹ Schoefer, “Rapport de restauration no. 2.”

concentrated around the armpit creases, others, including a very regular-looking rectangular hole at the wearer's left front shoulder, appear more contrived (see Figure 1). The buttons, which are rather large (approximately 20mm in diameter), are all heavily abraded, likely due to the repeated action of buttoning and unbuttoning the garment. Two bottom buttons at the front closure are missing (see Figure 6). The wrists and hem of the garment also show signs of loss and abrasion. Finally, the left sleeve has a cuff and the right sleeve does not, which appears to have been removed at some point in the past. Asides from the components appearing to have been removed, the abrasion damages appear consistent with normal wearing use of the garment: armpits, buttons, cuffs and front edges all suggest a garment that was worn by a mobile body.



Figure 6. Detail of lowermost front buttons. © Lyon, musée des Tissus – Pierre Verrier.

Another physical feature of the garment that affects its three dimensionality is its quilted surface. The small quilting stitches are sometimes visible and sometimes hidden in the weave of the cream and gold lampas fabric. Wide ridges create texture in the fabric in different directions across the whole garment, suggesting quilting of pattern pieces separately. This indicates two things: firstly, that the pieces were quilted individually, not woven that way or quilted in the yardage and then cut. Secondly, that, by quilting the pieces individually, the maker was able to minimize the stitching necessary and match the quilting pattern to the cut of the garment, creating aesthetic symmetry and harmony between the pattern pieces and the quilting. The

overall effect of the quilting and the fabric is a slight stiffness, likely reinforced by the static yet active posture of the garment mount.

The amount of buttons used is substantial and potentially excessive— numbering 39 on both sleeves and 32 down the centre front (not including the two lowermost missing buttons) but serves to create a distinctive silhouette. Half the buttons would likely have produced similar fit results. The use of buttons hints at how tightly this garment has been tailored to the curves of a male body. Without buttons, it appears likely that the garment may be too fitted to put on. The sleeves are shaped, articulating the curve of the elbows, fitted, and closed with a long line of buttons. The torso is tailored in at the sides and sports a slightly elevated waistline. As described earlier, the chest bulges out slightly just above the front waist. This could suggest a feminine body, similar to the fashionable c. 1900 “monobosom” silhouette. In person, the garment clearly indicates that it is not a feminine garment: the broad shoulders, narrow waist, and bulging chest are unmistakably masculine. Even in photos, once given a second look, it becomes clear that the bulge is concentrated in the centre front of the garment, near the solar plexus, not in the area that female breasts are typically situated on the body. Indeed, if the wearer of this garment had breasts, they would likely sit right below the very wide, round armhole seams that nearly reach the centre front at the neck and the body of the garment, a flat area that gives no indication whatsoever of the roundness of a female chest. This male ‘monobosom’ created by the curved centre front edges and accentuated by large, round buttons is thus an oddity, emphasized by the highly fitted structure of the garment.

The unusual silhouette of the garment may hint at a different cultural ideal of the male body. The slight bulge below the pectoral muscles differs markedly from twenty-first-century conventions of the male form. It is impossible to know the shape of the body it was made for, but its structure and silhouette on the mannequin gives viewers some interesting clues. The torso appears very long, but slits at the side seams near the hips indicate that this is likely an illusion created by lengthening the body of the pourpoint and compensating by putting slits at the hem to allow the wearer to sit comfortably or lift their legs. The bulge at the chest may suggest the fashionable importance of a voluminous chest, which may be obtained by the shaping and padding of the pourpoint, or it may be created to address a growth or deformity of the original wearer. Given the depictions of this silhouette in illuminations like the *Roman de Giron le Courtois* (Figure 3), where nearly all male figures are depicted with a garment with a cinched-in

waist that increases the impression of a voluminous chest, the bulge in the pourpoint is likely a design feature intended to emphasize the chest and, possibly, create the illusion of a small waist.

Further evidence of atypical (from a twenty-first-century perspective) choices in cutting and fitting can be found in the sleeves of the garment. These long and fitted sleeves do not end where the arm meets the torso: they extend a good 12 cm beyond this intersection to create a wider circular area that nearly reaches the collar, centre front, centre back, and the halfway point between the neck and the elevated waist level. This style of sleeve is termed *en grande assiette*, referencing the circular “plates” tracing each shoulder.³² The quilting pattern echoes the *grande assiette* shape, circling the shoulders and down the upper arm, until the horizontal seam located at the crease of the elbow. At this point the quilting pattern changes to follow the bent lower arm. The sleeves are thus tailored closely to the shape of bent arms, which may affect posture and mobility. Tight clothes have the potential to constrict movement. However, if done carefully, tighter clothes can more successfully contour the body and, in so doing, follow more closely a body in motion. In the case of the pourpoint of Charles de Blois, its closely-tailored sleeve could improve mobility overall since the arm could be raised much higher compared with a sleeve where the armhole is lower. By placing a horizontal seam at the elbow crease, the maker would eliminate bulk created by quilted fabric at this junction. This could increase the ability to bend the lower arm fully towards the upper arm. Overall, the *grande assiette* sleeves of the pourpoint present an interesting puzzle to the twenty-first-century garment cutter: how did such a slender, body-conscious silhouette impact the movement of the body? Certain aspects of the sleeve suggest an attention to body movement, however other aspects of this medieval garment could suggest otherwise.

In summary, this thick description presents the pourpoint of Charles de Blois as a rare and exceptional relic of medieval clothing and the ideals of male beauty it reflects. Its cream and gold lampas fabric with lively motifs evoke visions of brilliant opulence. The careful placement of motifs and the cut of the garment are traces of intelligent choices in its making. Its form draws a picture of a slender, elongated, and bulging-chested body that remains very masculine in silhouette. Observing the object 650 years after it was created leads one to wonder how the

³² François Boucher, *Histoire du costume en occident de l'Antiquité à nos jours* (Paris: Flammarion, 1965), 191.

fabrics have aged: were the green silk buttonholes initially more brilliant? What about the cream silk and linen ground? The gold threads were undoubtedly more brilliant when they were first woven into this textile. How did the fabric look in the sunlight? In candlelight? I imagine that, in any case, it was a brilliant and striking garment in its original context. Even today, the materiality of this pourpoint is an evocative piece of history, a rich source of information for the object-based researcher. By consciously slowing down and observing the pourpoint at the Musée des Tissus, alongside my pre- and post-appointment research, I aimed to give the reader a vivid picture of the garment focusing on certain details of its cut and construction. The thick description reveals a larger, more masculine, and more athletic garment than it appears in pictures, and an overall cut that is markedly different from twenty-first-century menswear. The cream and gold lampas fabric used for the pourpoint is also presented as a point of departure from modern menswear. The garment's studied opulence is evident in the materials chosen and the care with which the motifs were placed. Married to the use of this precious textile is a tightly tailored silhouette that skims the body closely while still sculpting it in specific ways. Lastly, the sleeves of the pourpoint are identified as being of particular interest because their *grande assiette* cut is very different from modern sleeves and are shaped closely to a bent arm, which presents interesting questions regarding a wearer's mobility. Overall, the pourpoint of Charles de Blois is not only interesting compared to modern menswear, but is, on its own, a striking garment with an intriguing cut.

Chapter 3: Literature Review

This chapter will survey literature related to this research project. The literature falls into three broad topics. First, relevant material culture scholarship will be discussed, pertaining particularly to embodiment and making as a way of knowing. Secondly, I will discuss previous academic literature available on patternmaking, clothing, and mobility. Finally, I will present a survey of academic work on European men's medieval fashion. This will allow me to contextualize the pourpoint of Charles de Blois within dress history. Through this literature review, I may assess what is currently known about body-garment interactions and articulate the value of this rare garment as a case study for understanding body-garment interactions and the creation of garments for a dynamic body.

Dress Artifacts as Material Culture Objects

This section will explore the field of material culture, beginning with some foundational approaches and continuing on to more specific developments and applications of object-based research on historic dress. Jules Prown, an art historian and seminal researcher in the field of material culture, defined material culture as “the study through artifacts of the beliefs – values, ideas, attitudes, and assumptions – of a particular community or society at a given time.”³³ At the time of his article, Prown noted that there was no “comprehensive academic philosophy or discipline for the investigation of material culture,” while at the same time asserting that material culture’s existence was based upon, “the obvious fact that the existence of a man-made object is concrete evidence of the presence of a human intelligence operating at the time of fabrication.”³⁴ For Prown, objects could be treated as primary sources of data.³⁵ To investigate such data, Prown proposed a three-step process for guiding the analysis of objects: observation, deduction, and speculation.³⁶ This process is deemed necessary because, while researchers are practiced at interpreting written sources, “most of us are functionally illiterate” in the interpretation of

³³ Jules Prown, “Mind in Matter: An Introduction to Material Culture Theory and Method,” *Winterthur Portfolio* 17, no. 1 (April 1982): 1.

³⁴ Prown, 1.

³⁵ Prown, 1.

³⁶ Prown, 7–10.

objects.³⁷ Fashion curator Valerie Steele notes the potential of Prown's object-based research methodology in the field of dress history, as able to "provide unique insights into the historic and aesthetic development of fashion."³⁸ United with Steele in the belief that object-based research is a potent tool in dress history, Ingrid E. Mida and Alexandra Kim provide practical advice to researchers with their "slow approach to seeing," recognizing the importance of an intentional, unhurried mindset during the object-based research process.³⁹ Additionally, Mida and Kim provide several case studies using object-based analysis specifically for historic dress. Prown is foundational in the field of material culture and his approach can be adapted to focus on historic dress specifically through the work of Steele and Mida and Kim.

Prown's three-step approach and Mida and Kim's "slow approach to seeing" are of foundational interest to my work. Though Steele contributes to the argument for the importance of object-based research in dress history, the work of Mida and Kim is of a practical nature that can be directly applied to the current research. Due to scheduling constraints, I had already examined the pourpoint of Charles de Blois in person and accessed its object files before structuring the research process. This is a significant deviation from Prown's three-step process, where formal observation occurs first before further information on the object is accessed. Additionally, neither Prown nor Mida and Kim can provide specific instructions for how to approach the analysis of my particular object. Moreover, their approaches cannot guarantee the removal of all subjective or unsubstantiated inferences, nor that I will not miss certain clues and details in my analysis. However, during my research appointment in Lyon and in my subsequent data analysis, slowing down and bearing in mind the differences between observation, deduction, and speculation was a helpful tool for capturing and structuring details and meanings held in the object.

A variety of researchers from different fields of study have used a material culture perspective to address clothing and the body, incorporating information derived from objects, sometimes without specifically acknowledging an object-based methodology. Historians such as Beverly Lemire and Carolyn Dowdell have applied object-centred analysis within more

³⁷ Prown, 7.

³⁸ Valerie Steele, "A Museum of Fashion Is More Than a Clothes-Bag," *Fashion Theory* 2, no. 4 (November 1998): 327.

³⁹ Mida and Kim, *The Dress Detective*, 33.

traditional history research. In the case of Lemire, her work allowed a better understanding of the daily life of working-class women through their role in the reworking and repairing of clothing both domestically and professionally.⁴⁰ Lemire argues that reworking and recycling garments was an integral part of society and of the lives of English women needleworkers in the eighteenth century, due partly to the very high value of textile objects and the ubiquitous nature of needle skills for women of this period.⁴¹ In her master's thesis, dress historian Carolyn Dowdell expanded on this idea by looking at the construction of surviving eighteenth-century gowns held in museum collections, finding that not only did women's garments often exhibit evidence of multiple alterations, but that they were also constructed in ways that facilitated their alteration for changing bodies.⁴² Unlike Lemire, Dowdell has created reconstruction garments as a research method, though this was not included in her thesis.⁴³ Both Lemire and Dowdell credit what Dowdell describes as "skilled and nimble needlewomen's fingers" for the nature and form of the work they produced, drawing a direct relationship between the bodies of these women and the objects they made and altered. Work on the experience of past craftspersons encounters issues with lacking or inconsistent sources because craftspeople did not often produce written documents in tandem with their craft output. A limitation of this type of work is the fact that the voice of the original craftsperson is very rarely present to corroborate the narrative interpreted from objects. However, an object-based, historical approach is a benefit to my research, which seeks to make connections between the pourpoint of Charles de Blois and its maker(s), with the aim of uncovering the logic of its construction based on the physical realities of its making.

Garment patterns are a source of information about both the making process and the body of the wearer. Theatre professional and dress historian Norah Waugh engaged in object-based research, producing, among others, a work dedicated specifically to the cut of men's clothing in 1964. In this volume, Waugh laments how the cut of clothing, "the real foundation of any

⁴⁰ Beverly Lemire, *Dress, Culture and Commerce* (London: Palgrave Macmillan UK, 1997), 96.

⁴¹ Lemire, 98.

⁴² Carolyn Dowdell, "The Fruits of Nimble Fingers: Garment Construction and the Working Lives of Eighteenth-Century English Needlewomen" (master's thesis, University of Alberta, 2010), 71–80.

⁴³ Carolyn Dowdell, e-mail message to author, April 9, 2020.

costume, is not given its proper importance.”⁴⁴ In the second half of the twentieth century, dress historian, costume designer, educator, and conservator Janet Arnold began measuring garments and publishing the patterns she created from surviving artifacts in her *Patterns of Fashion* series, recognizing that the cut of historic dress could be of intellectual interest. Both Arnold and Waugh focus on periods after the one I am focusing on, and therefore cannot inform my understanding of medieval menswear. Garment industry veteran and fashion conservator Betty Kirke, in her research on the work of French designer Madeleine Vionnet, also reverse-engineered patterns of historic dress. Kirke took this method a step further by using the patterns to learn about Vionnet as both a craftsperson and businesswoman in her 1989 article and 1991 book. Kirke wrote specifically about the way Vionnet’s patterns interacted with the body and facilitated movement in ways other clothing does not.⁴⁵ Kirke was able to use her in-depth research on Vionnet garments to speak about Vionnet herself because she knew the identity of the maker of the artifacts she studied and even interviewed her.⁴⁶ Kirke had access to supporting documents and photos and looked at a large number of surviving garments. This is not the case in my research. I was able to interrogate the knowledge of the pourpoint’s maker(s) in a more limited way: only through the pourpoint’s cut and construction. Finally, Jenny Tiramani has applied work like Arnold’s to the academic study of embodied historic dress. Tiramani researched and recreated a sixteenth-century man’s outfit and observed it on a male model for an entry in a book edited by Ulinka Rublack and Maria Hayward and published in 2015. In doing so, Tiramani was able to understand how clothing can modify the appearance of the body. This perspective links the maker and the wearer through the physicality of the garment, as two inter-related halves of body-garment interactions.

Tiramani’s case study of the sixteenth-century Schwarz outfit is useful to my own study despite the century that separates both garments. Tiramani sought to contextualize the original outfit by looking at a variety of historical sources, including written documents, drawings, portraits, sculptures, and surviving garments. While I am limited in my access to similar

⁴⁴ Norah Waugh, *The Cut of Men’s Clothes: 1600-1900*. (1964; repr., London: Faber and Faber Limited, 1972), 11.

⁴⁵ Kirke, “A Dressmaker Extraordinaire,” 69, 72–73; Betty Kirke, *Madeleine Vionnet* (Tokyo, Japan: Kyuryudo Art Publishing Co. Ltd., 1991; San Francisco: Chronicle Books, 2012), 13, 26–28, 32, 35–36, 39, 42, 89, 117, 149, 233-234.

⁴⁶ Kirke, *Madeleine Vionnet*, 221.

surviving garments, establishing an understanding of the historical context in which the pourpoint of Charles de Blois was made and worn is critical to understanding it more fully. Tiramani's incorporation of a live model is a unique element that allowed an understanding of the garment-body relationship. Her approach was limited by the fact that no formal attempt appears to have been made to capture data on how the wearer felt in the garments. In my work, the experience of moving in the pourpoint reconstruction is a tool which I will use to better understand its cut and the bodily experience of the garment.

Overall, the field of material culture was developed as a way to derive meaning and understanding about culture through objects, an idea that has been applied fruitfully to historic dress. If Prown set the stage with his three phases of analysis, Mida and Kim most recently modified these phases further to address historic dress. Their "slow approach to seeing" is very helpful in a study that does not allow the manipulation of the fourteenth-century pourpoint. By researching and interacting in various ways with historic objects, even when handling is not possible, new understandings can be brought out about dress, the body, and the lives of historic people.

Mobility & Body-Garment Interactions

This section will delve into patternmaking and garment construction as it relates to the body, suggesting different ways body-garment interactions can be approached. As sociologist Joanne Entwistle noted, garments cannot be understood without at least referencing the body.⁴⁷ Even so, very few scholars have specifically analyzed historic dress and the dynamic, moving body. There is, however, a great deal of research done on the subjects of range of motion (ROM) and comfort and mobility, especially for the design of technical garments, such as athletic wear and personal protective clothing, that can be applied to the current project. In addition to this body of work, scholars from other disciplines have approached the inter-relation of body and clothing in more qualitative, experiential ways.

⁴⁷ Joanne Entwistle, "Fashion and the Fleishy Body: Dress as Embodied Practice," *Fashion Theory: The Journal of Dress, Body and Culture* 4, no. 3 (August 2000): 324.

As part of my research, I will explore body-garment interactions from more technical standpoints as well as more experiential and experimental approaches. Beginning by introducing the difficulties in creating clothes for the moving body, I will then discuss the development of technical research on body-garment ROM. Afterwards, I will delve into some alternatives to quantitative ROM research, surveying experiential and experimental approaches to this problem. The vast majority of this research is aimed at the contemporary garment industry, not to the field of historic dress. Nevertheless, new approaches can provide important insights to the current research since, as art historian Jack Hartnell reminds us, the medieval body is morphologically very similar to the contemporary one.⁴⁸

Range of Motion (ROM)

Range of motion (ROM) is a central concern for garment designers, particularly in the realm of work wear and athletic wear. Susan P. Ashdown, a researcher on mobility in clothing, brought forth the notion that the body is a dynamic object that changes dimensions in key areas while it moves.⁴⁹ It is a challenge for clothing designers to accommodate these changes while still providing adequate coverage of the body, a sense of comfort, and an aesthetically pleasing design. Despite the fact that the living body is in a near-constant state of motion, most garments are designed for a static, standing body (called the “anthropometric” position).⁵⁰ A great deal of research in personal protective clothing (PPC) has been centred on comparing mobility in an unhindered state with mobility whilst wearing various PPC. Many of these research projects use similar measurement tools in an effort to provide reliable quantitative data, such as analog angle measurements or some form of two-dimensional (2D) or three-dimensional (3D) body-imaging technology. As my research involves the wearing of the pourpoint to better understand body-garment interactions, the use of such range-of-motion measuring tools may be of interest.

⁴⁸ Jack Hartnell, *Medieval Bodies: Life, Death and Art in the Middle Ages* (London: Wellcome Collection, 2018), 12.

⁴⁹ Susan P. Ashdown, “Improving Body Movement Comfort in Apparel,” in *Improving Comfort in Clothing*, ed. Guowen Song (Cambridge, U.K.: Woodhead Publishing Limited, 2011), 279–81; See also J. Gersák, “Wearing Comfort Using Body Motion Analysis,” in *Anthropometry, Apparel Sizing and Design*, ed. Deepti Gupta and Norsaadah Zakaria (Sawston, Cambridge: Woodhead Publishing Limited, 2014), 320–23.

⁵⁰ Ashdown, “Improving Body Movement Comfort in Apparel,” 278.

Several measurement tools exist for the quantification of body movement. Ergonomics researchers Paul S. Adams and W. Monroe Keyserling compared the goniometer, the electric goniometer, and the Leighton Flexometer, which all measure angles of movement, finding that the simple goniometer was the most reliable and practical for testing ROM quantitatively.⁵¹ Other authors, such as apparel ergonomics researchers Janice Huck and Younghee Kim, used photographs to measure angles of movement.⁵² Still others, including ergonomics researchers Theresa Bellinger and Ann C. Slocum, have used high-speed cinematography or 3D-imaging technology to evaluate more complex body movements (e.g. multi-joint movements or a series of movements forming a particular action or task).⁵³ Multiple methods of measuring ROM in clothing exist; ranging from single-joint or single-movement measurements through tools like a goniometer or more complex movements captured using 3D body imaging. Overall, the interest in measuring body movement reveals that ROM is a critical concern for some garment designers, especially for work and athletic wear. This body of work reveals that body movement is a crucial yet complex aspect of a garment's design that may be quantified in a variety of ways, depending on the purposes and resources of the researcher. Some of the tools presented in this paragraph are not accessible for the current, limited research project but they are worth exploring for future use.

While range of motion (ROM) analysis is a critical, complex aspect of garment design, it is indissociable from the concept of context in clothing. As explored above, multiple approaches to measuring ROM exist. However, Ashdown notes that “studies that investigate the activities in which an actual user of the clothing will engage for a specific purpose can give more valid results.”⁵⁴ This hints at the contextual nature of ROM evaluation in clothing. To address this, design researchers Sandra Tullio-Pow and Megan Strickfaden developed the Clothing Taskscape

⁵¹ Paul S. Adams and W. Monroe Keyserling, “Three Methods for Measuring Range of Motion While Wearing Protective Clothing: A Comparative Study,” *International Journal of Industrial Ergonomics* 12, no. 3 (October 1993): 177–91.

⁵² Janice Huck and Younghee Kim, “Coveralls for Grass Fire Fighting,” *International Journal of Clothing Science and Technology* 9, no. 5 (December 1997): 346–59.

⁵³ Theresa A. Bellinger and Ann C. Slocum, “Effect of Protective Gloves on Hand Movement: An Exploratory Study,” *Applied Ergonomics* 24, no. 4 (1993): 244–50.

⁵⁴ Ashdown, “Improving Body Movement Comfort in Apparel,” 294.

Model, aimed at improving clothing design for individuals with specialized needs.⁵⁵ This model looks at various contexts that a user will confront in order to design clothing that will perform better in actual use. Even when relying primarily on quantitative assessments of ROM, projects such as those by Huck and Kim, and Huck et. al. included some sort of a subjective measurement component to their research, often in the form of a short, open-ended survey.⁵⁶ These surveys allowed more qualitative assessments of comfort and ease of use to be incorporated into the analysis. By including subjective, contextual assessments, a better understanding of how the garment will actually perform in use can be gleaned. As such, interrogating the pourpoint's context of use is an important component of the research.

A key concept in the assessment of the subjective aspects of wearing the pourpoint—or any garment—is comfort. In his book *Human Comfort*, textile and applied engineering researcher Keith Slater acknowledges that the concept of comfort itself is complicated to define, but that the environmental context in which an individual finds themselves is a critical determinant of comfort.⁵⁷ This is equally relevant when studying historic dress: it is impossible to understand how comfortable (or not) a garment is without looking at it from a historical perspective. J. Geršák, a clothing engineer and garment construction researcher, notes the difficulty of measuring comfort in clothing, stating that successful wearing comfort for clothing can only be achieved “on the basis of the role and function of the clothing,” which has physical and psychological dimensions.⁵⁸ In other words, the expectations of the end wearer in terms of activities they will be able to accomplish in a garment are as important as wearer expectations in regards to style or aesthetic impact. These physical and aesthetic components are a part of the overall comfort of a clothed person. It is unknown how this may apply to a garment that

⁵⁵ Sandra Tullio-Pow, “Mapping the Clothing Taskscape: Apparel Needs in Rehabilitation Therapy” (Ph.D. dissertation, University of Alberta, 2016), 6; Sandra Tullio-Pow and Megan Strickfaden, “Mapping the Clothing Taskscape to Assess User’s Needs,” *International Textile and Apparel Association (ITAA) Annual Conference Proceedings*, November 11, 2015, 94.

⁵⁶ Janice Huck, Oprah Maganga, and Kim Younghee, “Protective Overalls: Evaluation of Garment Design and Fit,” *International Journal of Clothing Science and Technology* 9, no. 1 (1997): 45 (Section: Subjective Preference of Subjects); Huck and Kim, “Coveralls for Grass Fire Fighting,” 3.

⁵⁷ Keith Slater, *Human Comfort* (Springfield, Illinois: Charles C. Thomas Publisher, 1985), 4. Comfort is defined by Slater as “a pleasant state of physiological, psychological and physical harmony between a human being and the environment.” See Slater, 4.

⁵⁸ Gersák, “Wearing Comfort Using Body Motion Analysis,” 320.

belonged to a historical person, such as Charles de Blois, whose life experience is unknowable and certainly different to modern peoples. One avenue to address this gap is to look to depictions of similar garments in contemporary visual sources, to see what body positions and postures were used and whether they might reasonably have been possible in real life. Nonetheless, the question of wearer comfort is important to ask when analyzing the pourpoint's body-garment interactions.

The success of a garment may thus be intimately related to an understanding of the ROM and comfort requirements of the wearer, which may also be linked to the context in which the garment is worn. A garment must respond to this context, permitting the wearer to complete expected activities, while presenting them in an aesthetically appropriate way. To test this, it becomes clear that relying only on quantitative ROM measurements leaves out a great deal and that measuring the subjective aspects of comfort and contextual appropriateness is a complex affair. ROM measurements can be taken in a limited number of ways and developing an adequate understanding of context and comfort can be difficult, even more so for historical dress.

Relevant Experiential Approaches to Body-Garment Analysis

Several researchers have attempted to provide more experiential ways with which to approach body-garment analysis that can be useful to my study. As mentioned above, Tullio-Pow and Strickfaden's Clothing Taskscape Model is an example of an experiential method of considering clothing that can help identify contextual requirements for garments. This process can be a useful framework for considering garments from a user's point of view. It includes aspects of garment wearing that likely applied to Charles de Blois' time, such as donning, doffing, toileting, etc. However, the Clothing Taskscape approach is designed with today's individuals in mind and is therefore limited in what it can offer when studying a historical garment. Individuals in the past may have had different taskscapes and/or clothing needs. Tullio-Pow and Strickfaden's model was nonetheless useful when developing a series of movements to be performed by the individual who wore the reconstruction pourpoint.

Architecture and design researcher Ines Simco's article, "Viewing the mobile body as the source of the design process," applies a wearer-centred model in an experiment, which aims to create patterns for a moving body as opposed to a static, standing body. Simco identifies certain,

more dynamic movements of the body that caused increased stress in tight-fitting test garments, such as “the forward projection of the elbows and wrists and the increased space between the flexed arms and torso.”⁵⁹ Though the intent of this work was far and away from anything related to historic dress, it speaks to some physical realities of the dressed body, wherein designing clothing for a moving body results in different patterning techniques, and that certain areas of the body are more crucial to mobility overall.

Rickard Lindqvist draws a connection between the stretching nature of human skin and the effects of bias-cut fabric, which is an intriguing and unique approach to body-garment interactions.⁶⁰ Woven fabric cut on the bias has unique stretching capabilities and is an important variable to manage in garment cut and construction. Lindqvist argues that Langer’s lines, which denote directional differences in how skin stretches, can be related to woven fabric, because they both follow the same basic stretching properties (stretches unequally, along two axes).⁶¹ This article was aimed at the contemporary clothing industry. However, it also provides us with a basis for understanding fabric manipulation to either improve or limit stretching over different areas of the body. The distribution of Langer’s lines through the shoulder-arm area, as depicted by Lindqvist (see Figure 7), shows remarkable similarities to the *grande assiette* armseye shape found in the pourpoint of Charles de Blois, the position of the quilt lines on the sleeve from armseye to the elbow, and other depictions of menswear in the fourteenth century (see Figure 3). Because the arm-shoulder juncture is so important for mobility, Lindqvist’s work on Langer’s lines could be a useful approach to understand the benefit of *grande assiette* armscyees in motion. By looking at wearer- and movement-centred methods of conceptualizing body-garment interactions, a contextually sensitive mode of garment and body analysis becomes possible.

⁵⁹ Ines Simco, “Viewing the Mobile Body as the Source of the Design Process,” *International Journal of Fashion Design, Technology and Education* 6, no. 2 (July 2013): 75.

⁶⁰ Rickard Lindqvist, “On the Relationship between the Shear Forces in Human Skin and the Grain Direction of Woven Fabric,” *International Journal of Fashion Design, Technology and Education* 9, no. 2 (May 3, 2016): 109.

⁶¹ Lindqvist, 109.



Figure 7. Langer's lines depicted on the body. © Rickard Lindqvist, reproduced with permission.

Pourpoint Research

The research must address the literature pertaining to shifts in men's dress history in Europe in the Late Middle Ages, with a focus on the fourteenth century. Sources relating specifically to dress in Brittany are privileged, but they are few. Even sources addressing French medieval fashion are scarce and those that exist are not comprehensive enough to merit being exclusively chosen. Therefore, this review was broadened to European late-medieval fashion. Beginning with an overview of men's fashion in the fourteenth century, this section goes on to include sources relating to medieval society that help to contextualize fashion in this period. In *Dress in the Middle Ages*, historians Françoise Piponnier and Perrine Mane explain how fashions for men reflected changing social mores as well as the male-dominated, military-based values of European society at the time.⁶² A shift in expressions of masculinity is said to have occurred in the mid-fourteenth century, one that differentiated male and female dress more than before and

⁶² Françoise Piponnier and Perrine Mane, *Dress in the Middle Ages*, trans. Caroline Beamish (New Haven and London: Yale University Press, 1997), 55.

marked a new, more body-delineating male silhouette.⁶³ Finally, the section will close with a discussion of the difficulties encountered when surveying men's medieval fashion. By studying literature on medieval menswear, I can better understand the cultural meaning of the artifact under study and its possible context of use.

The Middle Ages is the time frame between the fall of the Roman Empire and the Renaissance and, in many ways, the fashion of this period reflects this transition: over time, the draped garments of antiquity morphed into the cut and sewn styles that continue to dominate Western dress today. According to fashion designer and dress historian Stella Marie Newton, the typical suit of clothes worn in the fourteenth century by both men and women was a tunic (*tunica*), overtop of a shirt (*camisia*), with an overtunic (*supertunica*).⁶⁴ Pipponnier and Mane further mention the use of *braies*, a type of undershorts made of linen or hemp, worn exclusively and widely by men.⁶⁵ From this basic set of clothes, a series of changes is identified as having occurred over the fourteenth century. Looking at contemporary texts, sumptuary laws and visual depictions, Newton notes that, around 1340, Western European dress for both women and men began to be fitted much closer to the torso than before.⁶⁶ Informed by her training as a fashion designer, Newton credits this change partly to an innovation in sleeve setting technique: the introduction of set-in sleeves that followed the articulation of the shoulder and arm, which allowed the main section of the garment that covers the torso to be more fitted as well.⁶⁷ Other medieval historians using similar types of sources, such as H. M. Zijlstra-Zweens and Odile Blanc, note another dimension to this change in dress for men specifically: a shortening of hemlines from ankle or knee-length, to "tight fitting clothes that barely covered the hips."⁶⁸ This focus on short, fitted styles included garments such as the pourpoint, which, according to Blanc, is defined as a padded and quilted garment worn underneath armour to protect the body from its

⁶³ H. M. Zijlstra-Zweens, *Of His Array Telle I No Longer Tale: Aspects of Costume, Arms and Armour in Western Europe 1200-1400* (Amsterdam: Editions Rodopi B. V., 1988), 27.

⁶⁴ Stella Mary Newton, *Fashion in the Age of the Black Prince: A Study of the Years 1340-1365* (Woodbridge, Suffolk: Boydell Press, 1980), 4.

⁶⁵ Pipponnier and Mane, *Dress in the Middle Ages*, 40.

⁶⁶ Newton, *Fashion in the Age of the Black Prince*, 2-3.

⁶⁷ Newton, 3.

⁶⁸ Zijlstra-Zweens, *Of His Array Telle I No Longer Tale*, 27.

hard contours.⁶⁹ Craftswoman and dress historian Mary G. Houston dates this new delineation of the upper body to around 1350.⁷⁰ Acknowledging, however inconclusively, the question of geography, dress historian François Boucher, who does not cite his sources, dates this transition to between c. 1340 and 1350, stating that it occurred across Europe, through Italy, England, Germany, France, and Spain, without seeming to have begun anywhere in particular.⁷¹ Amongst dress historians, a consensus appears to exist about the occurrence of a change in men's dress in the mid-fourteenth century, whether in terms of a new tightness in dress or shortness, or both. The pourpoint of Charles de Blois may be part of this moment of transition in fashion, as it is an example of both a short and fitted male garment.

Despite this general consensus, the existence of different earliest dates of adoption must be acknowledged when discussing men's fourteenth-century fashion and, specifically, the pourpoint of Charles de Blois. There exists a slight but distinct range of dates, descriptions, and geographic provenance currently ascribed to the changes that occurred in men's fashion in the fourteenth century, as described above. The pourpoint of Charles de Blois itself is generally cited as being c. 1364—the year Charles de Blois died—but this is fifteen to twenty-five years after shorter, tighter clothing is supposed to have become fashionable. Zijlstra-Zweens presents a law written in 1335 by King Robert of Naples, wherein the king describes with thinly veiled horror the advent of tight garments “shortened up to the very buttocks,” which would present a near 30 year gap between the pourpoint's date of creation and the introduction of shorter, tighter menswear.⁷² However, Zijlstra-Zweens notes that the King's description may be a dramatization, as the iconography available from the mid-1330s still shows only knee-length men's garments.⁷³ The King's note is nonetheless of great interest as a law in 1335 could mean that these styles existed at that time, or perhaps even earlier. Dismissing an earlier introduction of short and tight men's garments is often the result of the scarcity of primary sources available on this subject: without several sources confirming this occurrence, early adopters may remain unnoticed.

⁶⁹ Odile Blanc, “Le pourpoint : aux sources d'un genre vestimentaire et de la popularité d'un image,” in *Élaborer un vocabulaire historique du vêtement et des textiles dans le cadre d'un réseau interdisciplinaire* (Colloque Vêtements & Textiles, Dijon, 2011), 1.

⁷⁰ Houston, *Medieval Costume in England and France*, 72.

⁷¹ Boucher, *Histoire du costume en occident*, 191.

⁷² Zijlstra-Zweens, *Of His Array Telle I No Longer Tale*, 56.

⁷³ Zijlstra-Zweens, 27.

Zijlstra-Zweens' observations point to issues of type and availability of sources for medieval fashion. Thorough documentation is often lacking, especially in the case of our pourpoint and its owner. If no short garments are found in visual sources in 1335, this does not mean that they did not exist. Sources may not have survived, for one. It may also be that such novelties did not fall into conventional artistic practices or that major patrons, like church authorities, reacted with similar horror and did not want it depicted in their art. In the case of the pourpoint of Charles de Blois, a generally cited date of origin, c. 1364, corresponds to the last year in the life of Charles de Blois, who was killed in battle on September 29, 1364.⁷⁴ Did he order and wear it solely during the year of his demise? A popular belief about this garment is that it was the garment Blois was killed in; however Schoefer saw no evidence on the interior or exterior of the garment to support this.⁷⁵ By the 1360s, this type of garment was already in fashion for multiple decades; it is therefore possible that the pourpoint at the Musée des Tissus originated at an earlier date. Moreover, the use of the term 'pourpoint' is contested: Blanc discusses how a great deal of terms existed to describe short, tailored upper-body garments both in the fourteenth century and since.⁷⁶ It is Marie Schoefer's opinion, after several decades of work on the Musée's garment, that it is in fact a *hoqueton*.⁷⁷ The naming of the garment in question is somewhat peripheral to the present research, which is interested in the garment's physicality more than its name. However, the lack of certainty surrounding the nature of this garment is worth noting, both in terms of how it can be contextualized historically and in terms of how this uncertainty is a reflection of a lack of agreement in the scholarly conversation about fourteenth-century dress. Moreover, the provenance of the piece deserves greater scrutiny. While not the focus of this research, there is a lack of credible sources identifying and dating this garment and this must be acknowledged to avoid contributing to broader uncertainties in the study of medieval dress and its transition to body-delineating garments.

The movement from loose to fitted fashionable menswear may have been due, in part, to the prominence of the military in European society in the Middle Ages, of which Brittany was no exception. Military conflict was a long-standing state of affairs, with military invasions after the

⁷⁴ Moal, *Auray 1365*, 11.

⁷⁵ Marie Schoefer, email message to author, December 12, 2019.

⁷⁶ Blanc, "Le pourpoint," 13–14.

⁷⁷ Marie Schoefer, email message to author, June 9, 2019.

fall of Rome establishing what historians Piponnier and Mane describe as a “warrior caste” that dominated throughout the Middle Ages.⁷⁸ Medieval historian Marie Thérèse Caron presents a detailed account of the French upper class (including the duchy of Brittany) in the mid to late Middle Ages, noting how the nobility was traditionally closely linked to military power.⁷⁹ In the fourteenth century, France and England were in the midst of the Hundred Years War, which is said to have begun as early as 1337 and lasted well into the fifteenth century.⁸⁰ Brittany itself was undergoing a civil war of succession of great importance to both French and English Kings.⁸¹ Charles de Blois’ fate was ultimately tied up in these military struggles. He spent nine years captive in England and was released only on condition that he not engage in any acts of war against England, and that he pay a large fine.⁸² His right to the throne of Brittany, supported by the French, was contested by another nobleman, Jean de Montfort, who was supported by the English.⁸³ Ultimately, de Blois was killed in battle by de Montfort’s forces on September 29, 1364.⁸⁴ Military conflict was an important characteristic of medieval Europe and of fourteenth-century Brittany. In the case of the pourpoint of Charles de Blois, its distinctive cut links it to functional military garments, but its precious imported Middle Eastern textile, a luxurious linen, silk, and gold lampas fabric (see Appendix 1), indicates that the garment was likely more fashionable than military or strictly functional in use. Though the effects of this military configuration of society on dress cannot be measured precisely, understanding the context in which garments like the pourpoint of Charles de Blois were made and worn is critical to developing a context-sensitive understanding of the artifact in question.

Military power (and power more generally) in the medieval period is closely related to men, as many authors have noted.⁸⁵ This relationship between military power and masculinity

⁷⁸ Piponnier and Mane, *Dress in the Middle Ages*, 55.

⁷⁹ Marie-Thérèse Caron, *Noblesse et pouvoir royale en France : XIIIe - XVIe siècle* (Paris: Armand Colin Editeur, 1994), 11.

⁸⁰ *Encyclopedia Britannica Online*, n.d., s.v. Hundred Years’ War, <https://www.britannica.com/event/Hundred-Years-War>.

⁸¹ Caron, *Noblesse et pouvoir royale en France*, 101–4.

⁸² De Meyer and Van Cauwenbergh, *Dictionnaire d’histoire et de géographie ecclésiastiques*, 9: 225.

⁸³ De Meyer and Van Cauwenbergh, 9: 225–26.

⁸⁴ Moal, *Auray 1365*, 11.

⁸⁵ Hartnell, *Medieval Bodies: Life, Death and Art in the Middle Ages*, 233–50; Piponnier and Mane, *Dress in the Middle Ages*, 77.

could have impacted men's fashion.⁸⁶ Indeed, art historian and curator Denis Bruna credits the omnipresence of soldiers in English and French municipalities with the adoption of padded, fitted garments like the pourpoint into civilian dress.⁸⁷ Bruna particularly linked the fashion for a puffed and padded chest (a phenomenon seen in the pourpoint of Charles de Blois) as related to the silhouette of military armour.⁸⁸ The adoption of military garments as fashionable civilian dress can be seen to be a reflection of the martial structure and values of medieval society. Charles de Blois himself was deeply involved in military activities, which may be reflected in his pourpoint. In medieval Brittany, as elsewhere in Europe, idealized masculine silhouettes could be seen as intimately linked to military power, finding expression through dress.

Literature on European men's fashion in the Late Middle Ages, especially the fourteenth century, reveals a rich and dynamic, if somewhat poorly understood in detail, period of change that left a lasting impression on dress in the Western world. Zijlstra-Zweens has identified written sources as early as 1335 describing a change from longer, loose garments, towards shorter and tighter ones.⁸⁹ The introduction of this silhouette required a cut-and-sewn approach that is still in use today. Other historians such as Houston and Boucher point to c. 1340-1350, a point when visual sources began to depict these shorter, more body-delineating male silhouettes.⁹⁰ Historian Bruna links this type of attire to the omnipresence of military persons in medieval society at this time.⁹¹ Medieval historians Piponnier and Mane, Caron and Blanc concur and describe how European society in the medieval period was structured around a male, military social class that exerted great power in society.⁹² This is especially true for Brittany, which was implicated in two military struggles in the fourteenth century: the Hundred Years War (c. 1337-1475), alongside a war of succession that ended in 1364 with the death of

⁸⁶ Zijlstra-Zweens, *Of His Array Telle I No Longer Tale*, 28.

⁸⁷ Denis Bruna, "Puffed-Out Chests and Paunched Bellies: The Broadening of Men's Bodies from the Fourteenth to the Sixteenth Century," in *Fashioning the Body: An Intimate History of the Silhouette* (New Haven and London: Yale University Press, 2015), 41.

⁸⁸ Bruna, 41.

⁸⁹ Zijlstra-Zweens, *Of His Array Telle I No Longer Tale*, 56.

⁹⁰ Houston, *Medieval Costume in England and France*, 72; Boucher, *Histoire du costume en occident*, 191.

⁹¹ Bruna, "Puffed-Out Chests and Paunched Bellies," 41.

⁹² Piponnier and Mane, *Dress in the Middle Ages*, 55; Caron, *Noblesse et pouvoir royale en France*, 11; Blanc, "Le pourpoint," 1, 2.

Charles de Blois. The pourpoint attributed to Charles de Blois appears to fit comfortably in a world greatly impacted by military values: its military styling yet very costly fabric indicate a fashionable garment designed to conspicuously espouse these values outside of the battlefield. It is nonetheless important to recognize that scholars are by no means in agreement over many details regarding dress in this period, including what this type of garment was called or even when it may have been adopted into fashionable dress. The novel change in the fashionable male silhouette in the fourteenth century is reflected in the pourpoint of Charles de Blois, a garment that embodies this newly introduced, body-delineating cut and its links to a society strongly influenced by military values.

Points of Connection: Fourteenth Century Fashionable Menswear and the Mobile Body

How can literature on men's dress in fourteenth-century Europe be brought to bear on literature related to the mobile body, particularly through a garment like the pourpoint of Charles de Blois? These fields of knowledge are not obviously related and can be drawn upon more fully by building a reconstruction pourpoint and having a participant experience how it impacts his body. Even so, there are several authors whose work was surveyed in this literature review that help to articulate this project.

The fashion for padded and tailored menswear in the fourteenth century as described by historian Denis Bruna is said to be born from what was originally a military garment sometimes worn under armour.⁹³ This situation could suggest that, due to the nature of military activities, especially as related to warfare of the period, garments like the pourpoint would be expected to accommodate a wide range of motions. This may lead to further research on the types of warfare contemporary to the pourpoint as sword fighting and archery, for example, require different movements. A search for armor of this period may also be informative in the study of body-dress interactions and the development of the pourpoint. How might the cut of these newly fitted garments have impacted the movement of late medieval military and civilian men? Many avenues of research are possible but the limited scope of this project forced a narrowing of the research conducted.

⁹³ Bruna, "Puffed-Out Chests and Paunched Bellies," 39–41.

One of the subjects that was explored was the cut and construction of the pourpoint of Charles de Blois and the movement it afforded a wearer. Clothing impacts mobility in varying ways. How the fabric is cut and where its seams and grain lies on the body was essential to explore in the current study. The *grande assiette* sleeves of the pourpoint of Charles de Blois are cut far into the body of the garment, which differs from modern pattern-cutting conventions. Can the *grande assiette* cut facilitate movement by removing seams from the arm-shoulder juncture and allowing the grain of the fabric to respond to the stretching on the skin as shown by Langer's lines? Lindqvist's study of Langer's lines was of immense interest to the current project and it is a subject that can be addressed when a reconstruction pourpoint is worn. Using Lindqvist's work could help answer several questions in future research, such as "How can such a tightly fitted sleeve possibly provide the amount of mobility required in the military?" A garment's ability to provide mobility is intimately related to its cut, and garments cut like the pourpoint of Charles de Blois present an opportunity to learn more about how patternmaking and mobility are inter-related. As no hard answers are available in the current literature, there is potential for further inquiry into the subject of medieval menswear and body-garment interactions.

Conclusion

A variety of research has been done on the study of material culture, men's fourteenth-century fashion in Europe and present day body-garment interactions. These disparate fields have the potential to inform each other by using tools developed to address present-day garment design in the study of historical dress. Taking a material culture-based analysis of the pourpoint of Charles de Blois as a point of departure, and with a focus on body-garment interactions, it is possible to develop a more holistic understanding of this example of men's late medieval fashion.

Objects are rich sources of information that can be used to fuel academic research projects. Prown's foundational work in object-based research methods combined with Mida and Kim's work focusing on dress artifacts specifically demonstrate how such research can be conducted. In the field of dress history, many types of objects have been used to fuel research on the lives and experiences of makers and wearers, including Dowdell and Lemire, who each used objects to better understand dress practices in the eighteenth century. Linking both making and wearing, Tiramani took an object-based research approach to a particular sixteenth-century

outfit, using a reconstruction to better understanding the making of period dress and its effect on the body of the wearer. Dress artifacts can be used as a rich source of information for the study of the making and wearing of historic dress, revealing insights from makers as well as the related experience of the wearers.

Though research on historic dress and the mobile body is very limited, a significant corpus of academic literature on body-garment interactions can be found in recent garment design research. Researchers including Adams and Keyserling, Bellinger and Slocum, Huck and Kim, and Huck et. al. have developed quantitative and qualitative methods to measure mobility and comfort in PPC. Included within the broader corpus is research like that of Ashdowne, Vuruzkan and Ashdown, Strickfaden and Tullio-Pow, Tullio-Pow, Simco and Lindqvist, which attempts to find new methods of evaluating and/or creating clothing that better responds to the body's dynamic movements. Through this research, it becomes apparent that clothing and mobility are strongly interrelated. Yet, it is not only the cut of a pattern that impacts the body, it is also how the grain of fabric is positioned on the body – whether it can stretch with the body or not. Crucially, this body of research attests to the fact that garments do impact the body, either allowing or restraining certain behaviours.

Men's dress in fourteenth-century Europe experienced a change from longer, looser garments that had dominated for centuries to a shorter, more body-delineating silhouette. The pourpoint of Charles de Blois exemplifies this change with its body-conscious cut. Noted as an important development in the history of dress, the particularities of this change of fashion are not entirely well-understood by scholars. Historians such as Zjilstra-Zweens mention written documents that appear to describe such a shift as early as 1335. Other historians, such as Blanc, Boucher, Houston and Newton, date this change to c. 1340 or 1350. According to Bruna, this shift can be seen as rooted in medieval, male-dominated, military-based social values that caused military undergarments to transition to fashionable dress. The pourpoint of Charles de Blois can be contextualized within this social structure, where its alleged owner was himself implicated in a war of succession, in the midst of the drawn-out theatre of the Hundred Years' War. The pourpoint of Charles de Blois fits into the context of fashionable, military-influenced garments, because its cut reflects the adoption of tighter and shorter garments linked to the military, but is likely more of a fashionable garment than one meant for battle, due to its costly fashion fabric.

The pourpoint of Charles de Blois may well be an informative example of mid-fourteenth-century fitted menswear in terms of how it impacts the body. The ways in which areas like the *grande assiette* armscyes impact mobility deserve more research. The opulent textile could serve as a research topic by itself, but will not be investigated in the present research as the focus is on the cut rather than textile history. Garments like the pourpoint show a resemblance in their cut with military garments, suggesting they were patterned with an active individual in mind.⁹⁴ How garments like the pourpoint were cut may very well be able to speak to how a medieval man may have been expected to move when he wore his fashionable tailored and padded pourpoint. Overall, the tailored, body-delineating cut of mid-fourteenth-century menswear is a potent opportunity to develop an understanding of how clothing and the body interact.

⁹⁴ Bruna, 41.

Chapter 4: Methodology

This project uses an object-based research approach to fuel the study of the embodied experience of the making and wearing of the pourpoint of Charles de Blois. My approach combines object-based research methodologies to understand the garment, with embodied-knowledge methodologies able to tease out insight from its making and wearing. Through a reconstruction process, an understanding of the garment as intimately related to the dynamic bodies of its maker(s) and wearer will be developed. Grounded in the pourpoint itself, this research uses a reconstruction of the object as a way to go beyond what is traditionally possible with a delicate museum artifact that cannot be worn and, in this case, cannot be handled by researchers. This approach is tailored to cut and sewn garments held in museum collections, which stands to benefit particularly due to common institutional restrictions placed on their handling.

In an attempt to answer my research question, “What can we learn about body-garment interactions through a case study on the pourpoint of Charles de Blois,” my methodological approach is divided into three sections. I will begin by addressing foundational works in object-based research that guided my own research. I will then explore the making process through the work of anthropologist Tim Ingold, but will also include the works of other scholars who have engaged in making as a research tool. Finally, I will draw from the field of dress history, where a sustained and developing interest in the cut and construction of dress artifacts can be observed. Overall, my process combines making and wearing as two powerful methods to learn about body-garment interactions, historic dress, and the people who made and wore clothing.

Object-Based Research

This project takes an object-based research approach to learning about the pourpoint of Charles de Blois as a material object. Prown wrote that “[b]y undertaking cultural interpretation through artifacts, we can engage the other culture in the first instance not with our minds... but with our senses.”⁹⁵ It is this sensorial knowledge that was one of the main interests in the research. How can one get at this type of knowledge? Prown proposed a three-step method that aims to separate

⁹⁵ Prown, “Mind in Matter,” 5.

observation, deductions, and speculations about an object. This process forms a solid base from which to begin to analyze an object.

Prown's method considers material culture objects to be primary sources of information.⁹⁶ Moreover, he notes how "objects created in the past are the only historical occurrences that continue to exist in the present."⁹⁷ His three-step process consists of first describing the object, relying only on "internal evidence," or what can be directly observed or measured about the object.⁹⁸ The second stage, deduction, consists of interrogating the object from sensory, intellectual, and emotional vantage points, while only allowing observations that can be reasonably proven through actually using/touching the object or through the prior experience of the researcher.⁹⁹ Any unproven observations from the deductions phase can be reserved for the final stage of speculation, wherein the researcher progresses to theories and hypotheses about the object.¹⁰⁰ This process helps to minimize what Prown terms "the distorting biases of the investigator's cultural perspective," however, in practice, this is difficult.¹⁰¹ Fully separating the researcher's biases and cultural assumptions in any phase of object-based research is likely impossible. However, Prown's process provides a framework with which to approach the analysis of cultural (or historical) objects.

Mida and Kim, building upon Prown, propose a similar method adapted for dress artifacts. They emphasize the importance of consciously observing the item in their "slow approach to seeing."¹⁰² With complex objects like clothing, slow, deliberate observation can help to capture minute details. These details can be recorded through written descriptions, drawings, and measurements. Then, these careful and detailed observations can be used as evidence into more complex, garment-centred deductions and speculations. Mida and Kim propose slightly different steps as compared to Prown, with the last two steps in their approach being titled reflection and interpretation. Reflection emphasizes contemplation and an "emotional and

⁹⁶ Prown, 2. Material culture, according to Prown, is objects made or modified by man, and that therefore can be seen as material cultural expressions (Prown, 2).

⁹⁷ Prown, 3.

⁹⁸ Prown, 8.

⁹⁹ Prown, 9.

¹⁰⁰ Prown, 10.

¹⁰¹ Prown, 7.

¹⁰² Mida and Kim, *The Dress Detective*, 33.

sensory engagement” with the garment in order to draw out how it may have been used and considered by its original wearers.¹⁰³ Interpretation is a process of putting all the information garnered from the previous steps into a hypothesis on the garment.¹⁰⁴ This reinterpretation of Prown’s process might be more intelligible for newer students of material culture, but it does not encourage the researcher to distinguish between internal and external evidence the way Prown’s method does. Truly separating internal and external evidence is impossible, however making the conscious effort to account for where information about a garment is coming from can help to improve the validity of an object analysis.

My interactions with the pourpoint of Charles de Blois drew mainly from Prown’s three-step method but it also incorporated Mida and Kim’s dress-focused “slow approach to seeing.” The pourpoint is a complex material object with a multitude of information contained in its materiality. Perceiving and absorbing all of this information is nearly impossible even in ideal circumstances. In my case, I was subject to the collections handling policies of the Musée des Tissus, which meant I could not touch the pourpoint, nor did I have access to its interior. Slow, intentional observation can help a researcher maintain an open, perceptive mind during object analysis. Keeping Prown’s observation, deduction, and speculation steps in mind can help the researcher evaluate their insights as internal or external, evidence-based perceptions. This allowed me to tease out concrete information, such as types of stitching, orientation of the fabric, and arrangement of pattern pieces, alongside developing hypotheses and questions along the way. The “slow approach to seeing” and these three categories of information improved my ability to address my research question, including how the garment was made and how it may have fit on a moving body.

Clothing in Museum Collections

Access to museum artifacts may be subject to ethical, organizational, and, at times, object-specific considerations that impact the object-based research process. A major contribution to this project is that, through my association with my supervisor, Dr. Anne Bissonnette, and the generosity of conservators Véronique De Buhren and Catherine Sarraïmaïna, I was able to gain

¹⁰³ Mida and Kim, 29.

¹⁰⁴ Mida and Kim, 31.

access to the pourpoint of Charles de Blois in its holding institution, the Musée des Tissus in Lyon, France. Most museums are not under any specific obligations to give access to their collections and object files and often only accommodate short collections appointments. The access granted to me by the staff of the Musée des Tissus for a week-long stay to observe the pourpoint and its extensive records was exceptional. Direct observation of this rare garment and its associated files has provided me with the raw material necessary to undertake this project, including a pattern created by the head conservator of the institution who was employed there between 1978 and 2013, Marie Schoefer.¹⁰⁵ This pattern was done during a major conservation project in the late 1970s and early 1980s. From this time forward, the pourpoint has remained mounted on a custom mannequin and will likely continue to be mounted, in order to protect it. Any type of handling of this most precious object would accelerate its deterioration. At the time of my appointment in June 2019, the pourpoint was buttoned shut on the form and the interior was thus completely inaccessible. Not being able to access the inside of the garment is one of several restrictions I was given as a visiting researcher, also including not being able to touch or handle it in any way.. Even while being subject to a variety of considerations that directly impacted my research process, my access to this object was productive as it generated considerable data.

Objects in museum collections are subject to institutional rules but special circumstances may also affect access and research. Staff members must assess the condition of each piece when access is requested. The rules given to me were specific to the piece I was researching. My supervisor, Dr. Anne Bissonnette, was also at the Musée des Tissus to do her own field research. The 1790s objects she observed were more stable and she could document her extensive experience handling and measuring such artifacts. She was given permission to measure garments and do basic handling while museum staff conducted more complex manoeuvres. Though it is impossible to know the exact reason why I was permitted to study the pourpoint in person, the fact that I was able to submit my request (via email) alongside that of my supervisor may have helped to grant me access. Bissonnette is an experienced researcher and dress historian

¹⁰⁵ Marie Schoefer, email to author, December 12, 2019. Schoefer initially entered the Musée des Tissus in 1978, leaving for a position at the Musée de Genève. She returned to Lyon in 1985. At the time of my appointment in June 2019, Schoefer had already retired, however I was able to reach her via email (Schoefer, email to author, December 12, 2019).

and my association with her likely improved the reception of my request. Access may also be dependent on political considerations related to specific objects. The pourpoint has been strongly related to the collective identity of the region of Brittany, which has experienced separatist movements, including acts of extremism, such as the 1978 terrorist attack on the palace of Versailles.¹⁰⁶ Some museums would reasonably restrict access to a politically charged object, but in my case, I was simply restricted from sharing images of the pourpoint without written permission. Logistics also affect access as exhibition preparation and special projects may lead to a lack of space and staff to address research requests. The type of research I am doing may be both interesting to educational institutions that collect very fragile objects and to institutions that focus on a more extensive online presence in lieu of space and staff available to researchers. The research I am able to carry out is dependent upon the special circumstances of my access to the pourpoint, as well as the special circumstances surrounding the garment itself.

Since the 1960s, the once commonplace practice of allowing the wearing of garments in museum collections has become less and less acceptable.¹⁰⁷ Today, the major heritage conservation institution in Canada, the Canadian Conservation Institute, states, in their guideline for handling textile artifacts, “[d]o not wear historic costumes. Use historically accurate reproductions for interpretive purposes.”¹⁰⁸ Refraining from wearing historic garments protects them from dirt, dust, and body oils, and mechanical wear. This is especially important with historic dress, which may require special undergarments in order to fit properly. Moreover, the deportment of people changes over time, and modern postures can cause strain and damage in garments designed for a different posture. This factor needed to be addressed when selecting a model and determining which activities they had to carry out when dressed in the reconstruction

¹⁰⁶ Sylvain Antichan, “‘Nous sommes tous Versaillais’ : les courriers reçus par le château de Versailles suite à l’attentat de 1978,” *Presses Universitaires de France : Ethnologie française* 173, no. 1 (2019): 34.

¹⁰⁷ Anne Bissonnette, “Savoring the Process,” *Dress* 38, no. 1 (October 2012): 19. Bissonnette notes that the Costume Society of America, founded in 1973 to promote the study of dress, debated the issue of wearing museum garments for some time, not recommending its prohibition until 1987. This date is rather recent given the centuries of collected garments residing in institutions that have a duty to care for their objects (see Bissonnette, 19).

¹⁰⁸ “Caring for Textiles and Costumes - Preventive Conservation Guidelines for Collections,” Canadian Conservation Institute, accessed December 17, 2019, <https://www.canada.ca/en/conservation-institute/services/preventive-conservation/guidelines-collections/textiles-costumes.html#a31>.

pourpoint. This issue was partially addressed by ensuring that some historical postures and movements were included in the wear trial and were supported by contemporary visual sources. In the case of the pourpoint of Charles de Blois, the advanced age and fragility of this garment absolutely precludes the possibility of it being worn again, which poses problems for understanding the garment as an object designed for a moving body.

The ban on wearing garments in museum collections is important for their continued preservation but this separates these objects from a good portion of their original meaning. Dress historian Valerie Steele notes, “[i]f fashion is a ‘living’ phenomenon... then a museum of fashion is ipso facto a cemetery for ‘dead’ clothes.”¹⁰⁹ To bring the pourpoint back to “life” and recover some of its original meaning, I strategically employed reconstruction as a method to understand the embodied experience it provided. The value of wearing reconstructed historic dress became apparent to me as an intern at the Colonial Williamsburg Foundation in the Margaret Hunter Millinery Shop in 2015. Under the tutelage of journeywoman Janea Whitacre and then-apprentices Sarah Woodyard and Abby Cox, I researched and recreated eighteenth-century dress using historical methods, while dressed in reconstructed clothing of the era. This experience gave me a more holistic understanding of women’s fashion and dress in the eighteenth century that would have remained mysterious to me without the embodied wearing experience. The embodied knowledge provided by accurate reconstruction dress and underpinnings gave me a new understanding of eighteenth-century women’s fashion and the women who made and wore the clothes.¹¹⁰ Involving both making and wearing, the methods I used in this research responded to the institutional and ethical limitations imposed by museums as guardians of cultural patrimony.

¹⁰⁹ Steele, “A Museum of Fashion Is More Than a Clothes-Bag,” 334.

¹¹⁰ The concept of accuracy in reconstructed historic dress will be discussed in more detail in the following sections. Perfect accuracy is impossible to achieve due to barriers of knowledge, changing available materials, time and money. Increasing the level of accuracy in reconstruction dress can be achieved by research using various primary and secondary sources and accounting for the decisions made in the reconstruction process – to render it transparent and repeatable.

Access to the Pourpoint of Charles de Blois Pre-Proposal

I was given the opportunity to study the pourpoint of Charles de Blois in France before completing the proposal for my master's degree research. Undertaking a part of the research in advance of submitting my thesis proposal is an irregular situation. In an ideal world, I would have begun writing my proposal in May after the completion of my course work and would have gone to France in the fall to start the field research. However, financial and logistical considerations often prevail and institutions are not always able or fully willing to allow direct access to their artifacts at a time that best suits the researcher. In hindsight, doing the research in the fall might have been counterproductive as the proposal had to evolve following knowledge gained during field research and its limitations (no touching or interior access to the pourpoint). I worked with my supervisor to establish a research plan before the visit and submitted this to the staff of the Musée des Tissus, as per their instructions. Thinking about the field research and conducting it led to a custom-designed research project that aims to address the strengths and limitations of the data I collected.

Consequently, some information about the construction of the pourpoint and of its tactile qualities is unavailable to me and affected my ability to reconstruct it accurately. The hand of the fashion and lining fabrics is, for instance, something I could not wage. The fibre content, spinning of the yarns, weave structures, and use of supplementary weft yarns (in this case gold *baudruche* yarns) affect the behaviour of a textile. Though I have data from the object files on the fibre type and weave of both fabrics (interior linen lining and exterior silk lampas) and batting fibres (cotton), as well as information on the composition and preparation of the gold thread, this cannot fully supplement the haptic experience of manipulating the fabrics. Because the pourpoint is a layered and padded garment, there may also be interactions between the layers that impact the drape and hand of the compound fabric. This may possibly be fortuitous for my project, as layering and quilting often reduces the shearing and extensibility properties of the component fabrics and the differences in shearing and extensibility properties of my reconstruction's fabrics compared to the originals' may not have as great of an impact as in an

unquilted garment.¹¹¹ Even with the lack of certain information, especially tactile insight related to fabric and the padding and layering of the garment, studying the pourpoint in person gave me access to considerable information for the project.

The Role of Making in the Creation of New Knowledge

Making is a way of knowing. It can be a way of demonstrating knowledge and a way of figuring things out that can be applied to academic research on historic dress. In his chapter “Telling by Hand,” anthropologist Tim Ingold argues for the capacity of making to both communicate and discern knowledge.¹¹² Making, for Ingold, is related to “telling,” a word that has two senses. The first is being “able to recount stories.”¹¹³ The second is “to be able to recognise subtle clues in one’s environment and respond to them with judgement and precision.”¹¹⁴ In other words, the first is the ability to communicate something. The second is the ability to discern and respond with intelligence. These two modalities of “telling” are central to my research. There are multiple ways of approaching the act of making that can get at different kinds of knowledge inherent to the materiality of garment construction. Ingold identifies the hands as being uniquely able to carry out these two functions of telling but, if we push this thinking further, it is possible to advocate that the entire body can also help to discern information through the making and wearing processes.¹¹⁵

How can hand and body knowledge be applied to research on historic dress?

Reconstructing period garments and wearing such pieces is an embodied experience that goes beyond what is possible by looking at or even touching the original garment. Skilled dressmakers employ a great deal of knowledge related to fabric and construction in the process of creating a garment, and reconstruction allows some of this knowledge to be brought out. For instance, research by Bissonnette (a dress historian as well as a fashion designer by training) on American

¹¹¹ Stephen Cheng Kwok-Po, How Yan-Lai, and Yick Kit-Lin, “The Application of Fabric Objective Measurement in Shirt Manufacture,” *International Journal of Clothing Science and Technology* 8, no. 4 (October 1996): 51, 61.

¹¹² Tim Ingold, “Telling by Hand,” in *Making* (Abingdon, Oxon: Routledge, 2013), 109.

¹¹³ Ingold, 109.

¹¹⁴ Ingold, 109.

¹¹⁵ Ingold, 109.

designer Charles Kleibacker included the reconstruction process so that she could better understand his approach.¹¹⁶ She wrote about her findings, explaining how, for instance, a Kleibacker silk crepe coatdress from 1967 had a front panel cut on the bias and a back panel cut on the straight of grain that required the maker to distort the cloth in the front as, “without leading to puckering at the seam, intense stretching of the front was needed.”¹¹⁷ Another Bissonnette article, following in the footsteps of Kirke’s work on Vionnet, exposed the impact of the making process on the designer’s work and how reproducing a garment can uncover such insights. Citing former curator Pamela Golbin, Bissonnette also discussed the knowledge embodied in the making process and the importance of a body surrogate (a wooden half-scale mannequin) in Vionnet’s creative process:

In [Pamela] Golbin’s evaluation, practical issues are minimized [when draping with a wooden mannequin] and, although the manipulation of excess fabric for draping bias is mentioned, Vionnet’s tireless schedule is not factored in and the inability of a person to keep her arms raised for hours is not taken into consideration. As for other assessors wanting to elevate the status of fashion, the conceptual is privileged. While of importance, other concrete ramifications of the half-scale mannequin use may evade authors without training in the field of fashion design. Before research by practitioners like Betty Kirke, monographs on Vionnet (and designers in general) often focused on the conceptual, formal, and aesthetic aspects of her designs to the detriment of lesser-valued approaches rooted in the acute observation of the cloth and ingenious practical developments at the core of Vionnet’s praxis.¹¹⁸

The maker’s use of a wooden half-scale surrogate body and the impact of Vionnet’s creation on the wearer are of interest to the present research. Bissonnette describes how, “[t]he handling of fabric was made easier by the use of the half-scale mannequin based on a real woman’s body. Placed on a spinning piano stool, the mannequin also helped Vionnet work in three dimensions for hours on end.”¹¹⁹ Vionnet’s process can thus be described as designing in response to the form of the body, which directly influenced the form and construction of her garments. Through the making process, it is possible to retrace some of the “ingenious practical elements” that

¹¹⁶ Anne Bissonnette, “Charles Kleibacker: Designer, Educator and Curator 1921-2010” (Costume Society of America National Symposium, Boston, MA, 2011).

¹¹⁷ Bissonnette, “Savoring the Process,” 7.

¹¹⁸ Anne Bissonnette, “Doing History with Objects: Betty Kirke and Madeleine Vionnet,” *Fashion Theory* 19, no. 3 (June 2015): 297.

¹¹⁹ Bissonnette, 297.

Vionnet's hands worked through during this process of creation.¹²⁰ My research precludes the possibility of a surrogate body, as it is impossible to know the morphology of Charles de Blois at the time the pourpoint was, presumably, made for him. However, the present research will use reconstruction of the pourpoint in a similar way, teasing out possible insight into the logic of the garment's construction that may have been known and experienced by its creators. Wearing a garment also benefits the research process. Kirke tried on a selection of Vionnet's personal garments, which gave her direct experience of one of the foundations of Vionnet's work: garments that move with the body.¹²¹ Kirke, in wearing Vionnet's garments, experienced the product of Vionnet's advanced knowledge of cut (often on the bias) and the maker's creation of specialized seams that can expand and contract in tandem with the fabric's bias elasticity.¹²² In wearing a bias-cut Vionnet reconstruction, it is possible to physically consider the knowledge held in the maker's hands with the whole body: in this case, the freedom and wide range of motion that were likely an integral part of Vionnet's success. The process of making is therefore complemented by the related experience of wearing, which provides a method for teasing out craftsmanship and other decisions made by the designer or maker of a historic garment.

In the reconstructing of a period garment, the researcher is using his/her/their hands to interact with the materials, forms, and methods used for the original garment, allowing the recovery of knowledge through experience. As Ingold writes at the beginning of his chapter, "we can tell of what we know through practice and experience, precisely because telling is itself a modality of performance that abhors articulation and specification."¹²³ An example of such difficulties of articulation and specification is the challenge of teaching a manual skill such as knitting to someone unfamiliar with the method. A spoken explanation is rarely able to transfer the information necessary to actually accomplish the particular task of pulling loops through loops with needles, much less all of the details of this embodied skill. Often it is only upon actually doing that students will begin to comprehend. Reconstructing a period garment applies this concept of knowledge gained in practice and experience. This process may allow the

¹²⁰ Bissonnette, 297.

¹²¹ Bissonnette, 288.

¹²² Bissonnette, 296.

¹²³ Ingold, "Telling by Hand," 109.

researcher to discern some of the things the original maker may have themselves discerned, things that are evident only in the performance of the garment-making process.

Ingold's "telling by hand" approach has two distinct meanings to "telling:" to discern and to recount stories, both of which apply to the research conducted.¹²⁴ The practice of re-making is an investigation of how the original maker may have responded to the physical and environmental context he/she/they experienced. In other words, it is about discernment. The maker also expresses information or stories with their hands: through the creation of a singular garment, they tell the story of their training and work experience as it is applied to a new project. This embodied narrative is what I, as a researcher, am trying to get at: the knowledge of the original maker that is embodied in the garment itself. I, as the maker of a reconstructed garment, also aim to create and recount a story: the story of the original garment's maker(s) and, to a lesser degree, wearer(s). The differentiation between discerning and telling stories is critical because a reconstruction cannot exactly replicate the object nor its original making process. Makers of reconstruction garments cannot uncover every insight, nor is it guaranteed that they will uncover the most important information. Recognizing a reconstruction as a new story keeps the limitations of such a project paramount. Results are unpredictable: the stories that emerge can be quite varied. The stories may be about craftsmanship, materials used, social and economic contexts of the maker(s) and/or wearer(s), or something else entirely. At the start, we cannot know where the research will lead us. The process of making as a research method is nonetheless useful to discern knowledge and tell an epistemologically potent story about the embodied experience of the maker(s) of the object under study.

Making in Recent Dress History Graduate Research

Making has enormous potential as a research method in the field of dress history research. Hand sewing can be used as an embodied-knowledge research tool to learn more about why something was made the way it was. Dowdell and dress historian and journeywoman milliner and mantua-maker¹²⁵ Sarah Woodyard both incorporated making as a method of knowing in their respective

¹²⁴ For the "recounting of stories," see Ingold, 109.

¹²⁵ In the eighteenth century, millinery and mantua-making could englobe the making of most of women's clothing and accessories.

Master of Arts research projects at the University of Alberta. Dowdell explored the “how and why” of the construction of eighteenth-century women’s clothing, contextualizing them within an eighteenth-century wardrobe.¹²⁶ In her work, hand skills were used to “reveal insights otherwise undetected,” thus making a contribution to a highly understudied aspect of dress history.¹²⁷ Woodyard used a method she titled “hand-sewn inquiry,” in which hand sewing was used to learn about the knowledge embedded in eighteenth-century caps. Using a reflexive, auto-ethnographic approach, Woodyard recognized “the agency of the hand as an important contributor to knowledge production and intellectual growth,” and that “[a] maker must uncover why an item was constructed in one way instead of another.”¹²⁸ Both Dowdell and Woodyard are makers and wearers who created eighteenth-century garments to know more about dress history through the making process. My research will adopt a similar approach. Uncovering information about why the pourpoint was made the way it was is the goal of this embodied-knowledge methodology and will be tailored to the particularities of my existing data on the pourpoint of Charles de Blois and what is known about the context in which this garment was made and worn in fourteenth-century Brittany. Making, as an embodied-knowledge research method, offers the potential to uncover insight into the reasoning of a garment’s construction that would otherwise be left undiscovered.

Embodied-knowledge methodologies like those adopted by Dowdell and Woodyard are the focus of this research. Dowdell used an analysis of surviving garments’ cut and construction coupled with research on techniques in use in the eighteenth century to better understand why garments were constructed in a certain way and how they may have been used. I will adopt a similar line of inquiry, but will incorporate an actual reconstruction into my process. I have only one surviving garment, which will provide all of the data I will use to make its reconstruction. Where I did not know for certain what the maker did (due to limitations such as not being able to see the interior), I engaged in a manual problem-solving process, drawn from Woodyard, who explored “the sensory experience of making and the problem solving that potentially can occur in

¹²⁶ Dowdell, “The Fruits of Nimble Fingers: Garment Construction and the Working Lives of Eighteenth-Century English Needlewomen,” 59.

¹²⁷ Dowdell, 60.

¹²⁸ Sarah Elizabeth Woodyard, “A Milliner’s Hand-Sewn Inquiry into Eighteenth-Century Caps ca. 1770 to 1800” (master’s thesis, University of Alberta, 2017), 25.

the making process.”¹²⁹ Woodyard’s hand-sewn inquiry acknowledges the influence of the researcher’s own experience and training in the making process.¹³⁰ Because my research situation is different, as well as my own skillset (Woodyard had, at the point of her thesis, engaged in years of practice-based training in eighteenth-century hand-sewing), this aspect of problem-solving through engagement with specific historical needle skills was somewhat limited in my project.

A focus on needlework in the fourteenth century was not central to the research but was accommodated when possible. Dowdell and Woodyard both focused on the eighteenth century in the Western world, a period that has a much greater breadth and depth of sources related to needleworking and fashion than the fourteenth century. I am a professional stitcher for theatre and I have served an internship under Woodyard at the Colonial Williamsburg in Virginia, U.S.A. As such, I am familiar with a variety of historical and contemporary sewing techniques, but my lower level (as compared to Woodyard) and comparative lack of available sources affects the results of my own reconstruction. Arguably, expertise in eighteenth-century techniques is also of limited use to the reconstruction of a fourteenth-century garment. My experience and skillset means I relied more heavily on the evidence I observed in the garment itself for construction decisions. The questions I encountered and responded to in my reconstruction process resembled Woodyard’s embodied problem-solving approach with a more limited emphasis on techniques drawn from other primary sources like fashion plates, other extant garments, and written sources. Though I identified the context in which this garment was made and worn as important to this research, due to limitations of data and of my own skills, researching period sewing techniques was a lesser part of this project than in Dowdell or Woodyard’s theses. My own research employed embodied-knowledge methodologies but remained grounded in the physicality of my single garment, the *pourpoint* of Charles de Blois, including the needlework that can be observed in that garment.

My immersive, hands-on process began with the pattern I copied from the files at the Musée des Tissus, which allowed a greater understanding of this garment as a product of embodied knowledge. Using my notes from the field research, notes from the object files on the

¹²⁹ Woodyard, 27.

¹³⁰ Woodyard, 28.

original fabrics, and photographs of the various pieces and techniques visible on the pourpoint, I first cut fabric with a similar hand to the original using the Schoefer pattern. The reconstruction textile sought to replicate the hand and weight of the original fashion fabric as closely as possible, even though I was unable to touch or manipulate it during my research appointment. Because using a fabric with an ornamentation similar to the original is impossible due to time and funding constraints, the reconstruction fabric simply aimed to match the tone of the original garment without the gold woven motifs. Because the focus of this project is the cut, not the visual effect of the textile, this was deemed acceptable, even if it resulted in a different appearance from the original pourpoint. I hand sewed my reconstruction, reflexively considering the nature of this embodied experience, and noted the problems I encountered and the impact of my own skills as a maker. My research was therefore ethnographic in nature, drawing on an approach that communications scholar Carolyn Ellis et. al. describes as one that “acknowledges and accommodates subjectivity, emotionality, and the researcher’s influence on the research rather than hiding from these matters or assuming that they don’t exist.”¹³¹ Through the reconstruction process, I leveraged my existing skills (and their limitations), to build an understanding of this garment from a maker’s perspective. Starting with the Schoefer pattern, my reconstruction process replicated the pourpoint as closely as possible given reasonable restraints of time, money, and subjectivity, enabling me to reflexively learn from the process and draw out insights related to the original garment.

Another researcher who used a reflexive approach in her research on dress—this time on the work of Madeleine Vionnet and of her biographer, Betty Kirke—is architect and design researcher Therese Martinez-Yu. For her Master of Arts research, she recreated five patterns that Kirke reverse engineered from original Vionnet garments. Martinez-Yu used making as a way of learning, a process that helped her understand the intellectual work of both Vionnet and Kirke. Adopting reflexivity and participant-observation methods facilitated though video-taping herself, Martinez-Yu described the purpose of her process: “by draping and putting the patterns together,

¹³¹ Carolyn Ellis, Tony E. Adams, and Arthur P. Bochner, “Autoethnografie: Ein ÜberblickAutoethnography: An Overview,” *Historical Social Research* 36, no. 4 (2011): 274.

I hoped to extract the thought processes of the two women who originated them.”¹³² In my own research, I did not reverse engineer the pourpoint’s pattern as I had access to the one made by Schoefer. I did not know the method by which the original maker(s) developed it and, due to the limitation of the current work, did not investigate this for the current thesis. My goal is to create a wearable garment as close to the original as possible and the Schoefer pattern allowed me to bypass certain steps related to pattern development in the recreation of the pourpoint. In my research, I recorded my experience of the reconstruction in a reflexive journal, which permitted me to include drawing or other visual-based elements. Like Martinez-Yu, my embodied-knowledge methodology attempted to extract the thought processes of the original maker(s) by reflexively undertaking the process of reconstructing the pourpoint.

Tiramani Approaches

Tiramani has employed making as a way to learn more about historic dress and its embodiment and her work was thus of great importance to mine. A recent research project of hers involved recreating a sixteenth-century ensemble commissioned by accountant Matthäus Schwarz, as captured in his illustrated clothing diary. Tiramani recreated the garments to be worn by a living model of similar build to Schwarz, allowing her to observe the visual impact of the recreated ensemble on a living, moving body. In doing so, Tiramani linked making and wearing as two sides of the act of dressing. This was of great importance to my own research, as I wished to go beyond the reconstruction process and venture into the embodied experience of having someone wear the piece of reconstructed historic clothing. Unlike Tiramani, I worked from an existing pattern (the Schoefer pattern), which I did not modify to fit the model. Instead, I chose a model who fit the pourpoint as closely as possible. I accessed visuals of the period in order to determine what an ideal fit would look like and I attempted to get as close as possible to it. I also took the wearing process a step further than Tiramani and had the participant record his experiences of wearing the reconstruction pourpoint over the course of a set of self-directed wear periods. Afterwards, I developed a semi-structured interview that aimed to get the participant to describe

¹³² Therese Martinez-Yu, “Five Building Blocks: A Study of Madeleine Vionnet’s Construction Techniques Explained to the Novice Through the Exploration of Five Patterns by Betty Kirke” (master’s thesis, University of Alberta, 2013), 28.

the sensations of wearing the reconstruction pourpoint in more detail. In her research utilizing the static posture of her model, Tiramani concluded that the cut of the garments she reconstructed “shaped” the body into the historical ideal, thereby refuting the concept of a “historical body” or posture.¹³³ Her conclusion was made possible by using a reconstruction for wearing, allowing the embodiment of the garment by a model to be a source of information. However, Tiramani does not include any insight from her model on the embodied experience of wearing the reconstructed ensemble. My process, closely aligned to Tiramani’s, differentiated itself through the nature of my research data (a pattern taken off of an existing garment) and through the fact that I am equally interested in the embodied experience that my model experienced moving around in the reconstruction pourpoint.

The conclusions drawn by Tiramani were necessarily mediated by her interpretation of the original drawing and the choices she made as a researcher-recreator. Since the original garments have not survived, Tiramani engaged in research on garment and construction methods in use in that period, and applied them to the drafting and construction of an ensemble similar to that depicted in the Schwarz clothes diary. This included looking at various depictions of dress in tapestries, paintings, and sculpture, as well as extant garments. This is not exactly the case for my own research. My project is centred on an existing garment, of which I have a reliable pattern. While Tiramani could not know for certain what the cut of Schwarz’ ensemble was, one of my own limitations is that I do not know what the original wearer’s complete ensemble was. As Tiramani did, I looked for similar visual sources, alongside written sources, that were contemporary to the garment to find out what may have been worn with the pourpoint and how these various garments were cut and constructed so that I, as researcher-recreator, could simulate key functions of the whole ensemble.

The training of the maker and the specific nature of each reconstruction project help to dictate the information that is gleaned from the process. As a professional costume cutter for theatre, Tiramani’s recreation was enriched by her many years of experience and her understanding of the cut and construction of clothing of a variety of periods, but was also limited by her perspective as a craftsperson of today. I have less experience than Tiramani, and am also a craftsperson of the present day. This impacts my work, as I have less knowledge of possible

¹³³ Tiramani, “Reconstructing a Schwarz Outfit,” 396.

techniques and materials. Though it is impossible to quantify, my lesser training and experience in cut and construction may be of some benefit, as I have not been schooled in as many conventions and techniques common today. It may be that I experienced some aspects of the reconstruction process with less bias and/or pre-conceived ideas. Regardless, it is possible to uncover information through the reconstruction process that is modulated by the skills and perspective of the maker, but also by the particular reconstruction project being undertaken. Tiramani's approach allowed her to explore the making of the ensemble (in terms of labour, materials, and cost) and the modalities of its wearing (differences/exaggerations in the portrait and its impact on the body). This information was specific to Tiramani's particular project and what she drew from her experience. My reconstruction had the potential to explore similar themes, or different ones, as the process evolved. What ended up being relevant to my reconstruction process was mediated by my experience as a maker and by the object that was recreated. My research process took an approach similar to Tiramani's but the information that I drew from the research was modified by my unique reconstruction project and skills as a maker.

Chapter Summary and Description of the Methods Used

To answer the research questions “What can we learn about body-garment interactions through a case study on the pourpoint of Charles de Blois?” and, “Can the combined processes of making and wearing a reconstruction pourpoint help to understand body-garment interactions?” I drew from a variety of researchers and their methods to create my own research structure. My methodological approach was an embodied knowledge-based process designed to better understand this rare garment through the making and wearing processes. Garments are rich primary sources of information about the human experience, as demonstrated by Mida and Kim, Bisonnette, Dowdell, Woodyard, and Tiramani. Blending Prown's object-based research process with Mida and Kim's “slow approach to seeing” provided me with the research data necessary for my project. Clothing is a deeply personal category of material culture that offers insights unavailable in other sources, as Bisonnette, Dowdell, Woodyard, and Tiramani demonstrated in their respective works on designers, historical needleworkers, and visual depictions of dress. Clothing is often meant to be worn by dynamic, moving bodies, to which the pourpoint of Charles de Blois is no exception. This aspect of dress is often lost when garments move into

museums. In studying and recreating the pourpoint, my methodological approach has allowed an understanding of the embodied knowledge of the pourpoint's maker(s) and the embodied experience of its wearer to be brought forth.

My research process was built upon the work of Bissonnette, Dowdell, Woodyard, and Tiramani, but was tailored to my specific skillset and my unique research data. It can be broken down as follows, bearing in mind that, as a researcher-creator, I kept a reflexive journal of the process:

1. Requested access to the garment:
 - a. Proposed an approach and modified it to conform to institutional requirements.
2. Accessed the object in person:
 - a. Observed it, described it in writing, drew it, and photographed it.
3. Accessed the object file that accompanies the garment:
 - a. Read documents in the file and photographed or photocopied some documents when given permission.
4. Examined the Schoefer pattern:
 - a. Measured and observed the pattern to "true" it (i.e. to make sure that corresponding sections have the same measurements when sewn together, that the pattern is complete and realistic);
 - b. Assessed any points of incongruence against my field notes, and, if no aiding information was available to address incongruencies, I undertook a process of trial and error to address the problem, noting the issue and my actions in the reflexive journal.
5. Acquired necessary materials that were as close as possible to the original, within reason (e.g. time and money) as some materials were not readily available.
6. Cut and hand-sewed the pourpoint reconstruction.
7. Applied for ethics approval:
 - a. Developed parameters for the wearing process, including participant-led wear periods and a mobility trial using a variety of movements that could be used to shed light on the participant's experience of the reconstruction pourpoint;

- b. Researched and sourced necessary components of the ensemble (in this case, limited to the hose worn on the lower body) for the male research participant to wear;
 - c. Established how the researcher and the participant will capture the process, including a semi-structured interview designed to capture the participant's subjective experience of the pourpoint ensemble.
8. Recruited a male research participant who fit the pourpoint as closely as possible, using the garment as a guide and, to a lesser degree, contemporary visuals of men in similar garments.
9. Had the research participant carry out the wear periods, mobility trial, and semi-structured interview, which were recorded as follows:
 - a. Wear periods: the participant wore the pourpoint ensemble for one hour per day for seven days, and recorded his activities and his experience of them in a short video after that;
 - b. Mobility trial: conducted via remote video call, which was recorded.
 - c. Semi-structured interview: occurred directly after the mobility trial and was recorded as well.
10. Transcribed and coded the audio taken from the videos produced in the research.
11. Examined the data (field notes, photographs of the garments, reconstructed pourpoint, and the coded audio) and extracted findings that allow us to better understand the artifact.

The process sought to develop an embodied-knowledge research methodology that combines making and wearing as two methods able to uncover insight from a reconstruction of the fourteenth-century pourpoint of Charles de Blois. Drawing on object-based research methods tailored to museum artifacts, especially dress artifacts, this embodied-knowledge methodology is particularly suited to the unique data I collected during my appointment at the Musée des Tissus. Though an irregular situation, my data collection preceded my research proposal, which has enabled the research methods to be designed with my research data in mind. The custom-designed research project had both strengths and limitations. Even with the lack of certain information, especially tactile insight related to the fabric, padding, and layering of the garment,

studying the pourpoint in person allowed me to gather invaluable data that informed the proposal and the design of the embodied-knowledge research methodology.

In order to extract and organize information from an object such as the pourpoint, Prown's three-step method that aims to separate observations, deductions, and speculations was used. Prown's work formed the basis of my approach but Mida and Kim's "slow approach to seeing" modified the process. Notably, Mida and Kim accept that completely separating internal and external evidence (into the categories of reasonable deduction and hypothetical speculation) is impossible, however making the conscious effort to account for where information about an object is coming from can help to improve the validity of an object analysis. Together, Prown's three-step method and the "slow approach to seeing" improved my ability to analyse and derive different types of information from the pourpoint to address my research question.

The degree of access I was granted to the pourpoint had a direct impact on my methodology. Institutional rules (many of which are similar to the rules in other museums) impacted the structure of the data collection for the project, for example the limited access period and, most importantly, the inability to handle the garment or see it off its permanent mount. Nonetheless, this situation could make my research all the more valuable for the study of other clothing artifacts held in museum collections. The nature of the pourpoint as a museum artifact and the advanced age and fragility of this garment precludes the possibility of it being worn again. This poses problems for understanding the garment as an object designed for a moving body. Undertaking a reconstruction may, for certain purposes, be a way to circumvent the inability to manipulate and/or wear such garments. Reconstruction garments may be used as a facsimile for research and educational purposes. The methods I utilized (making and wearing a reconstruction), responded to the institutional and ethical limitations imposed by the Musée des Tissus as guardians of an important piece of cultural patrimony.

Making is a complementary process to the experience of wearing, and can be used to understand the how and why of dress. Making a reconstruction provides a method for teasing out craftsmanship and other decisions made by the designer or maker of a historic garment. Making as a research method becomes a potent tool to extract the embodied experience and knowledge of the object under study, and is one half of the embodied-knowledge methodology developed for this project. Garments are, in most cases, designed for a mobile body, which may be

interrogated through the wearing process. The goals of this methodology were to understand the pourpoint as it relates to the body and to uncover why it was made in the way that it was. Both making and wearing were methods that generated embodied knowledge. Making uncovered insight into the materiality of the garment (both cut and construction) that would otherwise be left undiscovered, that could later be related to the wearing process.

Major limitations of the research are the lack of access to the interior of the garment for clues on construction methods and the scarcity of fourteenth-century clothing artifacts and research on their construction methods. To remedy this situation, my research remained grounded in the physicality of the pourpoint, adopting construction methods that were used in the garment, and, where these could not be determined, I leveraged my existing (imperfect) skills, to reflexively problem-solve the pourpoint's construction. In doing so, my embodied-knowledge methodology attempted to extract the thought processes of the original maker(s) by reflexively undertaking the process of reconstructing the pourpoint.

My approach is based on, yet differentiated from, the work of Tiramani due to the nature of my research data. A pattern taken off of an existing garment was made available for me to use while Tiramani relied primarily on a visual representations. My professional sewing skills were also different and I was particularly interested in the embodied experience of my research participant. Drawing on my own experiences wearing reconstructions of historic dress, I believe that the experience of wearing clothing provides insight on the how and why of historic dress. This embodied knowledge complements the knowledge derived from the making process. When combined, making and wearing are the crux of the embodied-knowledge methodology I used in this project. My research process took an approach similar to Tiramani's, placing making and wearing as two related aspects of the significance of dress, but it was modified to fit my unique research situation and goals.

Chapter 5: Findings

This research can be divided into two main sections: making and wearing. The current section will lay out the findings of these two portions of the research so that they may be assessed for their ability to answer the research question: “What can we learn about body-garment interactions through a case study on the pourpoint of Charles de Blois?” and secondary research question: “Can the combined processes of making and wearing a reconstruction pourpoint help to understand body-garment interactions?” These are the focus of the present research and may be brought together to inform each other in the following chapter.

This chapter summarizes the findings that will be used to address the research question. This research does not focus on mid-fourteenth-century fashion or pourpoint making generally. It is grounded in a particular garment, the pourpoint of Charles de Blois, but it does not exactly recreate this garment in technique or in material. Notably, it is a reconstruction made possible by access to Marie Schoefer’s pattern of the original garment, whose accuracy is unknown. My own skills and experience as a modern needleworker also introduce a level of interpretation into the research. The wearing portion of the research also has numerous limitations. Though there are many ways to measure and/or quantify mobility and comfort, this research is exploratory and designed to capture the wearer’s subjective experiences of the garment reconstruction. Further, the findings of the wearing portion of the research are limited by the fact that a full ensemble was not created, and that only the pourpoint reconstruction and the non-historically-accurate facsimile hose that tie into the garment were tested. These and other limitations present interesting avenues for future research.

Before the findings, a summary of some of the more practical elements of the ongoing object-based research findings will be presented. Underlying the making and wearing aspects of this research are the approaches of Prown and Mida and Kim, who have enabled the development of an understanding of the pourpoint that has been foundational to the design of this research, as well as being iterative and constantly reviewed, revised, and expanded. Therefore I will present a summary of the object-based research findings that informed the subsequent processes of making and wearing before moving on to the findings of the making and wearing research.

*Object-Based Research Findings Relevant to the Making Process*¹³⁴

The process of observing, deducing, and speculating about the pourpoint of Charles de Blois was an ongoing aspect of the research process and it is pertinent to summarize key aspects of this part of the research before presenting findings related to making and wearing. In addition to the details and impressions captured in Chapter 2: Thick Description, these object-based research findings formed the foundation of the ensuing research. This research project is limited specifically to the pourpoint of Charles de Blois and does not delve into an in-depth examination of mid-fourteenth century fashion or construction techniques, beyond what was necessary to accomplish the making of the reconstruction pourpoint. It is a case study on what may have been done and experienced in the making and wearing of one particular garment. Following Prown's process and informed by Mida & Kim's dress-focused "slow approach to seeing," I was able to draw out several key findings from my research appointment with the pourpoint that supported the reconstruction and wearing processes. They will be summarized in observation, deduction and speculation sections.

Observations

As hinted in Chapter 2 (Thick Description), the aesthetic impact of the pourpoint, particularly in person, was striking. The opulent textile, woven with gold, combined with the body-delineating silhouette and rounded chest are intriguing. This is evident even through photos, though it was more powerful in person. Closer inspection of the stitching visible from the exterior of the garment showed that the stitch types used appeared to be relatively basic (backstitching, topstitching, overcasting, running quilting, buttonhole stitches).

¹³⁴ Pattern pieces in this (and subsequent) sections are referred to numerically based on the letters assigned to them by Marie Schoefer in her pattern of the garment. An annotated flat layout (drawn from the work of Adrien Harmand) of the pattern is included in Appendix 2.



Figure 8. Left front sleeve gore. Note backstitching visible between pieces. © Lyon, musée des Tissus – Pierre Verrier.

Secondly, it can be observed that the mannequin on which the garment is mounted plays a role in how it is perceived. Built to support the pourpoint and reduce folding and stress as much as possible, the mannequin has a peculiar arm positioning that emphasizes the length and shaping of the arms. It is unlikely that the original wearer held this posture for extended periods of time, leading to the question of how the garment would look when positioned with the arms hanging at the sides, or in an otherwise more neutral stance. The smoothness of the fit on the mannequin may not translate to real-life wear. While the mannequin suggests a smooth, tight fit with emphasis on the bent arm, a question that can be asked is whether this reflects how it would have actually been worn by a real person in the mid-fourteenth century.

Lastly, the fit and quilting of the sleeves are a point of interest in the garment. Though highly fitted through the elbow and arms, the sleeves exhibit a degree of wrinkling in the armpit area, indicating an excess of fabric. Quilted throughout, the sleeves differ in some areas from the quilting pattern established across the main garment. While the upper sleeves appear to be quilted similarly to the front and back of the garment (at the interstices of the octagonal motifs),

this is only true for the upper sleeves. On the lower sleeves, quilting lines were placed between each row of octagons and through the middle of them. How the cut and quilting of the sleeves interacts with a mobile body may be addressed in the following research.

Deductions

Based on my observations, I deduced a tension between aesthetics and a judicious use of a luxurious (and likely very costly) textile. This tension can be seen in the extensive use of piecing¹³⁵ in this garment, in contrast with the manner in which matching and centring motifs was done, and how the piecing appeared to be reserved for less obvious areas, like the side seams and lower arms. For example, at the upper centre back, one of the widest pieces on the garment, the motifs are positioned perfectly centred, with three full octagons captured at the narrowest point, between the shoulder blades (see Figure 9).

¹³⁵ Piecing refers to the practice of assembling smaller sections of fabric to make up larger pattern pieces. This is done in order to make more economical use of a length of fabric. In this document, pattern pieces refer to any of the lettered pieces that are laid out in Appendix 2. When referring to partially assembled areas of the pourpoint, I use the term “pattern sections.”



Figure 9. Upper back of pourpoint showing placement of three octagonal motifs at narrowest part of centre back. Photograph by © Katelin Karbonik.

At the side seams, there are multiple piecings used to widen the front and back of the pourpoint. Placing these smaller pieces on each side of the body avoids a seam closer to the centre of the body. Moreover, the major front and back pieces were carefully cut to be sensitive to the directional motif of the textile, keeping the animal motifs right-side-up. A notable exception to this are two of the pieces inserted at the body side seams (pieces O and Q), wedge-shaped, and cut on the cross-grain. Furthermore, one of the triangular piecing on the back that widens the hem of the garment is cut on grain, but with the animals upside-down, something that, while clearly observable, does not mar the overall look of the garment, due to its small size and placement away from the centre of the body (see Figure 10). The sleeves exhibit much more piecing, though this is not as readily apparent. The seams in this area are partially hidden in the curving of the arm and shoulder area. The apparent close fit of the sleeve and the articulation of the elbow provides opportunity for smaller pieces to be used. In combination with the piecing, it can be deduced that the sleeves were cut after the main front and back pieces, in order to conserve a limited amount of fabric. It can be deduced that if there had been enough yardage, and sufficient width, that far fewer pieces would have been required to make this garment,

particularly in the sleeves. As it stands, the manner in which the pourpoint was pieced suggests that the original makers tried to reduce the aesthetic impact of the piecing by concentrating it at the side seams and in the sleeves of the garment.



Figure 10. Right side showing upside-down orientation of lampas fabric on the back piecing. Photograph by © Katelin Karbonik.

Speculations

Through details like the careful cut and piecing of the garment, it can be speculated that, at the time the original pourpoint was constructed, labour was less economically valuable than the textile. The effort to centre the design and degree of piecing, particularly of the garment sides and sleeves, are an investment in hours of labour that, economically speaking, could be speculated to have cost less than acquiring enough fabric to reduce the need for piecing. It can also be speculated that this garment was designed to make the best use of a textile, where the need to cut large and more visible front pieces is balanced by the cut of the sleeve, which is able to be cut from much smaller pieces, due to its tight, articulated fit, and ability to hide piecing seams.

A second speculation relates to the cut of the sleeves, an emblematic feature of this garment. The highly fitted sleeves do appear to have a wrinkling of fabric at the underarm. This could allow the fabric to extend into this area of the body, but with an excess of fabric that can be speculated to have been designed to allow a greater arm/shoulder mobility (see Figure 2). The articulated curve of the elbow may contradict this somewhat: as the arm moves, the sleeve typically slides up and down the arm for some distance. However there appears to be a bulkiness in the elbow area that might indicate some allowance was given in this area to facilitate this sliding of the arm within the sleeve.

Speculations are hypotheses that deliberately go beyond the object's ability to answer them, meaning beyond the internal evidence present in the object. Some of these speculations may be addressed in the making and wearing processes, where a closer examination of the pourpoint's construction can occur. Such actions also have the ability to allow us to observe how this specific garment can fit a specific body.

Making

The making process was informed by data collected from the object and its associated files at the Musée des Tissus alongside the use of the iterative, problem-solving nature of the making process. Secondary sources on period construction techniques were consulted to provide some information about the techniques the pourpoint's original maker(s) may have had at their disposal during its construction. The objective of this process was to explore body-garment interactions through a particular garment. Therefore, other surviving garments were not used to shed more light on possible construction techniques. This is a limitation of this research as results cannot be generalized to pourpoint making as a whole. A possible avenue for future research is building another reconstruction with Marie Schoefer's pattern informed by a survey of similar garments and their construction. Doing so could help unearth information that could not be drawn from the pourpoint because, for one, the interior was inaccessible to me at the time of my research appointment.

The making of the pourpoint occurred on a part-time basis from March to June 2020. I recorded the process with photographs and in a reflexive journal, as a way to capture details and impressions of the process. Reflexively considering the problems I encountered in the making

process facilitated a deeper understanding of both the original garment and my own decisions as maker of the reconstruction. Cutting followed the pattern produced by Marie Schoefer in the late 1970s and early 1980s.¹³⁶ Construction decisions were made based on data collected from direct access to the pourpoint and its associated files and on the logic of the making process itself. The focus of this project was on a particular existing garment and was intended as an exploratory study, therefore secondary sources used were limited to stitch types and other basic construction information for the medieval period. The making process allowed me to investigate the pourpoint in more detail: from its cut (as captured by Marie Schoefer's pattern) to methods of construction that may have been used by its maker(s). The process revealed that Schoefer's pattern was, for the most part, internally consistent, with few seam lines that did not line up or that diverged in observable ways from the original.

Asides from information collected directly from the pourpoint and its museum files, the reconstruction process relied on some secondary sources related to sewing and construction techniques known to have been used in the Middle Ages. Some stitching and construction details were observable in the pourpoint during the research appointment, but not all. Part of the reason for undertaking a reconstruction is to confront the material realities of the construction process and figure them out through concrete actions. Knowing what some of the basic techniques available were in this period can help guide the construction problem-solving process.

Sally Thursfield's *The Medieval Tailor's Assistant* and *Textiles and Clothing 1150-1450* by Elisabeth Crowfoot, Frances Pritchard and Kay Staniland both include sections on stitches and construction techniques. Thursfield describes oversewing (butting and whipping), felling, running stitch, stab stitch, and back stitch as common techniques in the medieval period.¹³⁷ Crowfoot et. al. describes techniques present on fragments recovered within the city of London: over stitching (butting and whipping), various forms of lapping and/or folding seams held

¹³⁶ To obtain a copy of the Schoefer pattern (found in the pourpoint's object file at the Musée des Tissus), I photocopied it onto A4 and A5 sized paper and re-assembled it with tape once I returned to Canada. I then photocopied the pattern pieces onto engineering paper. These pattern pieces were used to cut out the fabric. I stored the original, taped-together photocopied pattern pieces for reference.

¹³⁷ Sarah Thursfield, *The Medieval Tailor's Assistant: Making Common Garments 1200-1500* (Hollywood, CA: Costume & Fashion Press, 2001), 44-45.

together with some combination of hem stitching, running stitches, or backstitches.¹³⁸ These techniques are consistent with my findings from observing the stitching on the original pourpoint. When choosing techniques during the making process, I looked to the pourpoint first for clues, which could be partially validated by these two sources.

Some decisions were based on the object but could only be approximated in a different fabric, as in the case of quilting lines. As the reconstruction pourpoint does not have the motifs to guide the quilting pattern, I traced off a copy of each pattern piece (or group of pattern pieces that were to be quilted as a whole, such as the lower sleeves) and worked out a quilting pattern using a gridded ruler and picture references to the original. Because the round, *grande assiette* sleeve is composed of so many pieces, its quilting pattern diverges from the octagonal motifs in certain areas. To determine quilting line placement in these areas, I pinned the unquilted sleeve onto a model and drew the quilting lines freehand using reference photos of the original. These adaptations were necessary and, though designed to follow the original as closely as possible, may introduce divergences that impact both the making and wearing processes.

Time

A common question asked of this research is, “how long did it take to make?” Though I did not specifically keep track of work hours, I consistently devoted 10-20 hours per week during a thirteen-week period, indicating 130-260 hours of work went into the making of the pourpoint. As this was an experimental project, some of these hours went into testing and/or fixing mistakes. Additionally, while I have some experience sewing professionally and as a hobby, most of this experience is not hand sewing and I am by no means a seasoned professional. It is likely that the time required to make the original was less than this. The original pourpoint is more likely to have been made by experienced needleworker(s) who had completed multiple similar garments before taking on one of such costly materials. It can be speculated that the time they required to construct the original pourpoint was much less than for my reconstruction.

Reconstruction Materials

¹³⁸ Elisabeth Crowfoot, Frances Pritchard, and Kay Staniland, *Textiles and Clothing 1150-1450* (London: Her Majesty’s Publishing Office, 1992; Boydell Press, 2006), 153-155.

A limitation of any reconstruction project is that, very often, the original materials (or even reasonably similar materials) are unavailable. Systems of production do much to inform the making process and are embedded in the historical context of the time. Global and local trade systems, the labour market, and many other social and economic factors create a unique set of conditions that cannot reasonably be reproduced during every reconstruction project. Choosing materials therefore becomes a process of determining what would be reasonably close within the time, money, and availability constraints of a particular project. The materials used to make the reconstruction pourpoint are as follows:

- 2 metres of 135 cm wide medium weight linen (200 g/sm (grams per square metre))
- A spool of 60/2 white linen thread
- A spool of 50/30 white linen thread
- A spool of 50/3 indigo blue linen thread
- 80 metres of 1000 denier green silk twist
- 0.45 kg of ginned cotton fibre
- 3D printed plastic button molds
- White deerskin

The materials of this reconstruction project were chosen for their approximation of the material and aesthetic characteristics of the originals, as closely as possible. This was limited by both a lack of availability and of knowledge of what the original materials may have been. The greatest challenge in choosing materials for the reconstructed pourpoint was the main or fashion fabric. As discussed earlier (see Chapter 2: Thick Description), the gold, silk, and linen lampas fabric of the original pourpoint has very few parallels in modern textiles. Choosing a proxy for the reconstruction was a significant challenge. Not only were the materials and their construction important, some weight was also given to aesthetic impact. No silk and linen lampas fabrics were found online or locally, and the upholstery fabrics that had a similar weight and colour to the original fabric were often made at least partially of synthetic fibres. There were no similar motifs found. A medium-weight 200 g/sm, plain weave, unbleached linen was chosen because linen forms a large part of the original fabric construction: though nearly entirely hidden, a set of linen warp and weft yarns and the core of the *baudruche* yarns are made of linen, making linen a major component of the original fabric. The original lining is a plain weave partially bleached linen, so the same fabric was used for the reconstruction's main and lining fabrics. The main sewing thread used is a 60/2 bleached linen thread, similar to the thread used in the original. The buttonholes are sewn with a green silk buttonhole twist, similar in appearance to the original.

Topstitching at the front edge is done in indigo blue linen 50/3 thread, similar in appearance to the original. Ginned cotton was chosen as padding for the reconstruction, as the original was padded with cotton, which is visible through several holes in the outer fabric, and appears to not have undergone combing or other techniques of fibre orientation. The deerskin was difficult to match to the original because I could not access it from the exterior of the pourpoint and because the original leather appears worn and potentially torn in photographs of the original's interior. A leather that could feasibly withstand being tied into a pair of hose was chosen for the purposes of the reconstruction. All these material components, except for the button molds, could have been available to the original maker(s).

The button forms were 3D printed specially for this reconstruction in partnership with the University of Alberta's Department of Chemical and Materials Engineering, based on information gleaned from the in-person research appointment and photos of the buttons. Two iterations of the buttons were tested for proportion and size relative to the measured buttonhole length. The reason for such extensive testing was twofold: firstly, the buttons have a strong impact on the aesthetics of the garment as a whole and determining adequate proportions was deemed important, and secondly, compared to modern conventions, the buttons on the original are very large proportional to the length of the buttonholes. This posed interesting questions related to the ease of putting on the garment. Having buttons too large to fasten would be a significant roadblock to the wear trials. The final buttons were approximately 22mm in diameter, very close in size to the originals, and though manoeuvring them through the buttonholes took more effort than is necessary on most modern clothing, it was still possible to button and unbutton them.

Reconstruction Procedure

Truing the pattern:

All corresponding stitching lines were measured with a flexible measuring tape to make sure they corresponded to each other in length. The Schoefer pattern was highly internally consistent. Two areas of relatively significant incongruency were identified (see a breakdown of these two areas on page 82. Instead of altering the pattern to address these areas, I decided to wait for the making up stage to see if more information might arise to explain these incongruencies.

Cutting out pieces:

I used a 1.58 cm (5/8") seam allowance, a modern sewing convention that gives ample room to address mistakes or alterations. The amount of seam allowance cut for the original was likely different and potentially not even throughout the garment, however this cannot be verified without taking it apart. I chose 1.58 cm because it offers enough "insurance" to deal with any issues that might come up in the sewing process but is not unduly bulky for sewing. Further, I was not limited in fabric yardage and could afford to trim wider-than-necessary seam allowances later, if necessary.

Assembling:

I worked on one portion of the garment at a time, before fully assembling the garment, in this order:

1. Back
2. Fronts
3. Right sleeve
4. Left sleeve

Some pieces were seamed before being padded, as they appeared in the original garment. Certain seams of the garment appear "deeper" both in-person and in photographs, while others appear flatter, indicating that some pieces were quilted before assembly and others were not (see Figure 11).



Figure 11. Right front armhole detail. Note the difference in the appearances of the curved armhole seam (running from the bottom left corner to top right) and the straight sleeve gore seam (intersecting with the armhole seam at near the bottom left corner and moving to the top left corner). © Lyon, musée des Tissus – Pierre Verrier.

Assembling as many pieces as possible while maintaining a relatively flat section of the garment to pad and quilt appeared to be the logic of the original garment, a hypothesis that was supported by the making process. Most sections of the garment were partially assembled in some way before inserting the ginned cotton between the exterior layer (main fabric) and the interior layer (lining) and quilting these components together. The right and left sleeves were different as the left one has an extra piece that I first assumed was a cuff that the right sleeve was missing. This was a misconception that affected my process. To give an accurate description of my actions, I will describe my work as it occurred, including mistakes. Pieces are referenced according to the lettering system in Appendix 2 (note that Appendix 2 is a two-dimensional layout of a pattern drawn by Adrien Harmand, not the Schoefer pattern, due to copyright issues). The lining and the fashion fabric were treated identically, therefore I will describe the process

only once. All seams were pressed after sewing and seam allowances were clipped if the seam was curved, to allow it to lie flat. I proceeded as follows:

1. The back: I stitched together the waist seam (uniting the upper back piece (K) to the lower back piece (L)). Next, I attached the small triangular parts (H & N) to both sides of the lower back piece (L) at the hem. I placed both layers right sides together and backstitched them at the hem and at the neckline and turned the assembled external and internal layers right sides out. I then padded the space between those layers with the ginned cotton and quilted all the materials together. Topstitching was done, but after assembling the garment together (see Step 6).
2. The fronts: I stitched together the long underarm triangular pieces (O & Q) to each front sections (P & R). This appeared to be the way it was done, rather than stitching them to the back section. I placed both layers right sides together and backstitched them at the neckline, centre front, and hem. I clipped the seam allowances then turned the right sides out. I then padded the space between those layers and quilted all the materials together. Lastly, I cut and stitched the buttonholes using a buttonhole stitch as it was easiest to do so before the pourpoint was fully assembled. I left the side seams and shoulder seams open until later in the assembly process so that they would be easier to handle.
3. The right sleeve: The sleeves were difficult to investigate in terms of construction. As for the body of the pourpoint, I could not remove the garment from its mount to observe the interior, relying on a few pictures taken of the interior c. 1980 that do not show the full inside of the sleeve, limiting my understanding of the assembly process. Nonetheless, based on the appearance of the seams, I speculated that the upper and lower sleeves (separated above and below the elbow) were assembled, padded, and quilted separately before sewing the elbow seam. This made sense because it is easier to pad and quilt something that is mostly flat. Then the buttonholes would be worked before inserting the sleeves into the armscye because it would be easier to manipulate the sleeve only.
 - a. Upper sleeve: I backstitched all seven upper sleeve pieces together. I placed the external and internal layers right sides together and stitched the upper (armscye) and lower (elbow) seams just outside of the marked seam lines. This gives a minimal seam allowance with which to stitch the elbow and armscye seams where the raw edges are already enclosed. For the lengthwise arm seam, I enclosed the

lower edge that forms the apex of the slit that is to be buttoned closed and left the raw seam allowances out on the rest of the seam (see Figure 12). I padded in between the fashion and lining fabrics and basted the remaining open seams closed. Finally, I quilted the surface of the sleeve, which was somewhat more difficult than on other pieces because of the three-dimensional nature of the gored piece (Piece S on the right sleeve) at the armseye.



Figure 12. Assembled right upper sleeve before quilting. Note the gore at the top middle edge and where the lengthwise arm seams are enclosed to create the arm slit that will be buttoned closed. Photograph by © Katelin Karbonik.

- b. Lower sleeves: this piece was missing its original cuff and so it was simple for me to bag the piece (e.g. place the assembled lower sleeve pieces right sides together, stitching them on all sides except for the cuff seam, pressing the seams open and then turning the entire assembled piece right sides out). On the original left sleeve, which still has a cuff, the stitching appears to indicate the cuff being butted against the rest of the sleeve and whipstitched on from the exterior. The same process may have been done on the right sleeve too, however, without the missing cuff piece, this was not possible to do (I decided later to add a drafted cuff to this sleeve to facilitate the wearing process, but this was not decided upon until later). As with the upper sleeve, I finished the elbow seam 3mm away from

the true seamline, to create a finished seam allowance (see Figures 12 and 13). After turning the lower sleeve right sides out, I padded and quilted it.

- c. To sew the upper and lower sleeves together: I lined up the elbow seam with the upper and lower sleeves right sides together and backstitched them together. There were no raw edges as these were already enclosed (see Figure 13). As a result, there were at least four layers of fabric to sew through, which was rather bulky, requiring me to use a stab stitch at times.



Figure 13. Close up of left horizontal elbow seam, which was assembled in the same way as the right sleeve, showing the enclosed seam allowances. Note the thickness of the seam. Photograph by © Katelin Karbonik.

- d. Buttonholes: after the upper and lower sleeves are assembled, I cut and sewed all the buttonholes.
- e. Assembly of the vertical sleeve seam (i.e. the seam extending lengthwise down the arm, from the armhole to the cuff edge): I stitched the external face (fashion fabric) of the sleeve (upper and lower sections) together with a backstitch and used a whipstitch to enclose and secure all seam allowances.

- f. Addition of the missing right cuff: although I did not want to introduce added components that were not on the original pourpoint into the cut of the new garment, I did want to create a fuller wear experience for the eventual participant. Therefore, I used the cuff piece (I) on the left sleeve to create a replacement right cuff, ensuring the sleeves were symmetrical, the same length, and fully finished. This introduces a level of interpretation into the research but was important to create a balanced experience for the wearer.



Figure 14. Assembled right sleeve without the replacement cuff. Photograph by © Katelin Karbonik.

4. Realization of left “cuff” error: once the right sleeve was completed and I proceeded to do the left sleeve following the same method, I saw that what I thought was a cuff piece (I) on the left sleeve was not in fact a true cuff. I realized that the lower left sleeve section was pieced together, because the narrow vertical piece that forms the lower sleeve section (J) extends all the way to the hem of the sleeve. This made finishing the sleeve (upper and lower sections) first then whipstitching the cuff piece to the hem of the sleeve

afterwards impossible. Why did I err? I did not have enough good pictures of the specific area where pieces I and J intersect. This is partly because it was difficult to photograph that area due to a lack of light, and partly because I had not noticed that there was something different in this area beside the addition of a simple cuff piece. However, the slanted stitches visible on the original pourpoint appeared to be worked from the right side. This suggests that this seam may have been worked last to enclose the whole lower sleeve. Therefore, I used the bagging technique to construct the lower section of the right sleeve, including the cuff hem seam. To turn the lower sleeve right sides out, I pulled the entire section through the exterior cuff seam, which does not extend all the way across the sleeve.

5. Attaching the sleeves to the body of the pourpoint: I began by backstitching the narrow shoulder seam, which I hadn't done earlier to limit stretching in this area. I then inserted the sleeves to the body of the garment using a backstitch as for the horizontal elbow seam, encountering similar difficulties with fabric thickness. Had I treated the front and back armseye seams on the body of the pourpoint with the same bagging techniques as those I employed on the upper and lower sleeve sections, this issue would have been even worse. I formed a construction hypothesis about the fronts and back of the pourpoint after working on those components. This hypothesis required that I treat the armseye seam allowances differently on the pourpoint compared with the sleeve. I simply folded the armseye seam allowance of the pourpoint down towards itself and used a running stitch to hold it in place. This resulted in an appearance different from what was visible in the archival photos of the original's interior (see Figures 15 and 16).¹³⁹ The original seam allowances protrude less and the way in which the lining is offset from the fashion fabric is clear. The reconstruction seam allowances are larger and protrude more, and the interior and exterior fabrics are flush with each other.

¹³⁹ Readers can also note the differences in the vertical sleeve seam allowances which lay horizontally at the back of the sleeves (Figures 15 and 16). In the reconstruction, the seam allowances are pressed open and whipstitched down, while in the original, it appears that a section of fabric has been laid down over top to cover the raw edges. Though many divergences are present in the reconstruction pourpoint, this research focuses its discussion on those that furthered analysis of the making or wearing processes.



Figure 16. Interior armscye seams of reconstruction pourpoint. Note puckering and protrusion of the armscye seam allowances. Photography by © Katelin Karbonik.



Figure 15. Interior armscye seams of original pourpoint. Note the offsetting of the main fabric and lining on the interior and the lack of puckering and protruding of the seam allowances. © Lyon, musée des Tissus – Pierre Verrier.

6. Adding topstitches: once the sleeves were affixed to the pourpoint, I added top stitches on the sleeves around the armscye at the front and back, as well as at along the neckline and at the hem of the pourpoint.
7. Inserting interior ties (for the hose) the ties on the original garment are made of scraps of lining fabric wrapped tightly with thread to produce a similar effect to braided cord. As I did not have access to the interior of the garment in person, I relied on a few pictures taken of the interior to estimate their dimensions and construction. The original centre back tie was made of leather. In my reconstruction, I used deerskin (Figure 17).

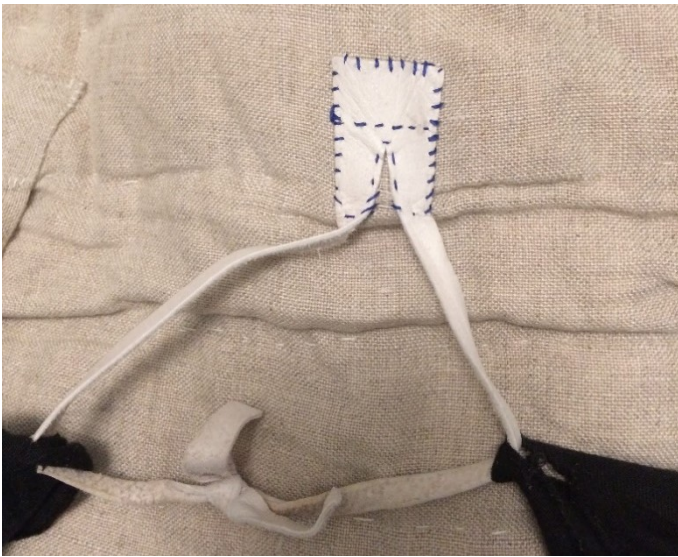


Figure 17. Detail of centre back deerskin tie with hose tied in. Photograph by © Katelin Karbonik.

8. Covering and applying the buttons: the buttons were covered with the same linen as the pourpoint. Small disks of linen were cut and the edges were folded in and running-stitched with a tail thread left long enough to handle drawing them in when a custom-produced 3D-printed button form was placed in the centre of each disk (Figure 18). These buttons were sewn onto the garment last, as they are heavy and would make the garment more difficult to manipulate during the construction process. Based on photos of the interior, I used shanked buttons which were secured with white 50/3 linen thread.

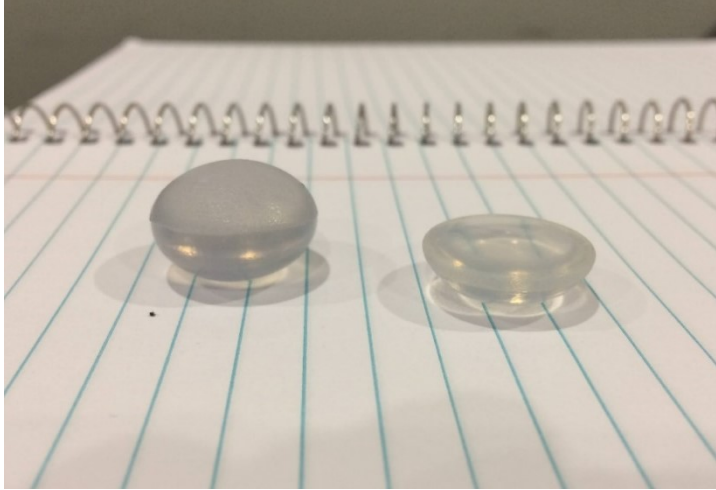


Figure 18. Round and flat 3D printed button forms. Photograph by © Katelin Karbonik.



Figure 20. Finished reconstruction pourpoint. Photograph by © Katelin Karbonik.



Figure 19. Finished reconstruction pourpoint, interior with hose tied in. Photograph by © Katelin Karbonik.

Areas of Incongruity in Schoefer pattern

As mentioned above, I came to the conclusion that there were two areas of incongruity in the Schoefer pattern. The making process did not shed light on their potential reason for being, suggesting that they may be pattern errors. The possibility that Schoefer deliberately chose to modify the pattern also exists but no notes were found to address this situation. Schoefer passed away in April 2020, and thus could not be contacted to clarify this possibility.

1. Back right strap: the upper section of the back piece (K) was drawn with a point on the armscye seam near the shoulder line. Schoefer's angular shape appears deliberate, but it did not match my direct observations of the piece nor photos of this area. Why Schoefer would have drawn the pattern in this way is not clear, especially given the careful nature of the rest of the pattern. A possibility would be that Schoefer, who used the pattern taken off the garment to construct a custom mannequin for permanently mounting the pourpoint, included this point as a feature of the mannequin. I have no direct access to the unclothed mount itself, in-person or through pictures or visuals, so I cannot verify this speculation.
2. Dimensions of the two parts of the lower right sleeve (Y and W): using Schoefer's pattern, I found that the widest of the two piece (Y) was longer along the segment that was joined it to the narrower piece (W). There was a relatively significant amount that could not be effectively "eased in" (where the widest piece (Y) was forced to as much as possible to conform to the length of the seam on the narrower piece (W)). I had to remove a slice of the widest piece (W) by pivoting the top part of the seam into piece Y until they matched up. This resulted in a 2 cm reduction in the elbow seam length. I was worried that this relatively large reduction would cause problems when assembling the upper and lower sleeve segments, but this was not the case.

These were the only two areas of significant incongruity that I could find in the Schoefer pattern. Overall, this indicates a well-made pattern that Schoefer took care to ensure was internally valid. Accuracy in the pattern-taking process can help achieve this, as well as properly truing the pattern afterwards. The fact that Schoefer used this pattern to create a support for the original garment suggests that not only is the pattern internally valid, it has external validity in relation to the size and shape of the original garment (although the mount created was likely slightly smaller

than the original pourpoint, in order that it would not strain the garment once dressed). There is undoubtedly many, impossible to quantify differences between Schoefer's pattern and the shape of the original garment, however the making process reveals the pattern to be well-made, with few areas of incongruity.

Wearing

Participant recruitment was time-consuming because of the very specific size of the pourpoint (and therefore its reconstruction) and due to social distancing requirements mandated by the COVID-19 pandemic in the summer of 2020, when recruitment took place. Advertisements were circulated via University email systems and through related community groups (e.g. historical re-enactment groups), and by word of mouth (all methods approved the University of Alberta Research Ethics committee). Interested participants were asked to send basic measurements (chest, waist, and hips) and, if they corresponded relatively closely to the pourpoint, the garment was delivered to them to try on. This was repeated until a participant that fit the pourpoint was found.

Fit was assessed via a virtual video meeting. While an in-person fitting would have permitted a more detailed fit assessment, this was not possible. The video meetings were still able to convey enough information to determine adequate fit. Additionally, given that the participant would dress themselves during the wear trials, having them do so for the fit assessment could give a more accurate sense of how the pourpoint would be worn in the wear trials.

My assessments were informed by the shape of the garment (its dimensions and morphology) and by depictions of similar garments being worn in the mid-fourteenth century (see Chapter 1, Figure 3). These two sources of information helped me to determine what an 'adequate' fit was, given that there was no way to know precisely how the garment fit its original wearer, nor what a historically situated "ideal" fit is. The human body is complex and subject to a great deal of variability and it is unlikely a perfect fit could be achieved without intimate knowledge of the body of the original wearer. Therefore, I was tasked with choosing a best possible fit based on the size of the reconstructed pourpoint and visuals contemporary to the pourpoint of similar garments. However, even the use of period illustrations may simplify or

otherwise modify reality. Therefore, my choice of participant introduced a further layer of interpretation into my findings.

Wear trials

The wear trials occurred between July 27 and August 9, 2020. The chosen participant was 68 kg and 178 cm tall, with body measurements (taken by the participant)¹⁴⁰ as follows:

Chest circumference:	95 cm
Waist circumference:	74 cm
Hip circumference:	91 cm

Items of dress peripheral to the pourpoint were not the focus of my study but needed to be factored in. A characteristic of the pourpoint of Charles de Blois is the ties sewn to the interior near the high hipline designed to tie into a pair of hose. In this way, the pourpoint is designed to be anchored to the lower body, an effect that was important to replicate for the wearing trials because of its potential to significantly impact the wearing experience. To approximate this situation, the participant was given the reconstructed pourpoint and a pair of knit hose to tie into it and he wore those over a t-shirt and his own underwear.

The research into peripheral attire was limited. Ideally, I would have researched and reconstructed a pair of historically accurate hose, in both materials and construction. However, due to time constraints, this was not possible. A pair of knit hose was thus created out of a pair of knitted long underwear. In the same vein, an ideal research scenario would have been a recreation of a full, historically-accurate outfit to wear with the pourpoint. This would allow a more complete and historically-accurate wearing experience. However, within the constraints of the present research, this was not possible. Further, it is impossible to know exactly what the pourpoint was originally worn with and the research required to construct a possible full ensemble was beyond the scope of this project. Instead, the participant was asked to wear a t-

¹⁴⁰ An ideal research scenario would have included a more extensive set of measurements taken by the researcher (who has training and experience taking body measurements) but due to COVID-19 distancing requirements, this was not possible. In light of these social distancing requirements, I could not ask my participant to take measurements he could not confidently take by himself, and the measurements used to determine eligibility were basic chest, waist, and hip circumference. Other measurements, such a length of the torso and arms, were assessed visually.

shirt underneath the garment, simulating the interim layer of the medieval shirt. The participant was given the choice of wearing shorts or his own underwear, as these two items are somewhat analogous to medieval *braies*. Prioritizing the participants' comfort was also important, not only for the participants' benefit, but also because he needed to feel at ease (physically and psychologically) when trying out a variety of activities in the pourpoint. An avenue for future projects would be to research and reconstruct a full mid-fourteenth century ensemble and conduct similar wear trials.

The wearing portion of the research was exploratory and designed to elicit the participant's subjective experience of this garment in relation to his own previous experiences with his body and clothes. There are more objective methods to measure mobility, some of which are explored in Chapter 3 (Literature Review), however this was beyond the scope of the current project. Wear periods were one hour per day for seven days, in the participant's home. After each one-hour wear period, he described his activities and impressions of the experience in a video, with the idea that the participant could "show" in addition to "telling" about his experience. The audio from these videos was transcribed, coded, and analyzed.

The participant did a variety of activities during the wear periods and, by the end of the seven days, reported that he felt his perceptions and experiences were repetitive, indicating data saturation. A summary of the activities the participant reported doing (which were chosen freely by the participant), their duration (where applicable), and his comments on them are presented in Table 1.

Table 1: Activities During Wear Periods

Activity	Duration (if noted)	Experience
Hand washing	N/A	Sleeves are very long and fitted and are uncomfortable because they get wet easily under the water from the faucet as they can't be rolled up.
Exercise		
Jumping jacks	Not noted	Restriction in ability to raise arms to full height due to tightness of chest, neck and waist areas.

Chin-ups	Not noted	More difficult due to the heat.
Squatting	Not noted	Uncomfortable because of the strings connected to the hose. Reduces arm mobility too, because the strings creates tension through the whole garment.
Eating	N/A	Pressure around neck when leaning over to take a bite of food.
Typing	Not noted	Buttons get hooked on the desk.
Vacuuming	Not noted	Neckline chokes when leaning forward for vacuuming or picking something up.
Walking	Not noted	Buttons get caught on walls or other objects.
Watering	Not noted	Tight around the neck from leaning forward, not to the point of discomfort.
Dressing	Once per wear period. Took longer at first, shorter towards the end of wear periods	Buttons are time-consuming to do up.
Undressing	N/A	Hose are prone to getting tangled.
Laying down	Two hours	Increasingly comfortable as he became used to it. Buttons would dig into his body if he leaned on them.

General comments echo many of the experiences presented in Table 1. The participant repeatedly mentioned heat and the impact of the strings on his wearing experience. He also compared the pourpoint to other garments, including sweaters, hoodies, and winter clothing.

Mobility Testing

At the end of the seven days, I was sent the videos to review, and a virtual meeting was scheduled wherein we conducted a short mobility test followed by a semi-structured interview. The participant completed a series of movements (see Appendix 3 first in comfortable workout

clothes (in this case, the clothes he had been wearing under the pourpoint, along with athletic shorts), and then in the pourpoint. For each movement, the participant used a three-point scale (0, equating to no perceived restriction; 1, some restriction; or 2, the highest degree of restriction) to describe the degree of restriction in a defined area of the body (arms, upper body, and lower body). For each area not rated 0, the participant was asked to describe the specific area that was restricted. The results of this process are presented in the following table:

Table 2: Results of Mobility Tests with a Summary of the Participant's Commentary

Position	Rating	Summary of participant's explanation
1 (standing position, reaching arms to ceiling)	Arms: 1	A one around the elbows
	Upper body: 1	A little tight around the shoulders, chest and waist.
	Lower body: 1	
2 (standing position, reach down to touch toes)	Arms: 1	A one around the elbows
	Upper body: 0	Little restriction on the lower back that prevents full extension bending over
	Lower body: 1	
3 (horse mounting motion)	Arms: 0	Zero everywhere
	Upper body: 0	
	Lower body: 0	
4 (Sitting down on a chair)	Arms: 0	Zero everywhere
	Upper body: 0	
	Lower body: 0	
5 (Squatting down onto ankles from standing position)	Arms: 0	One around his buttocks
	Upper body: 0	
	Lower body: 1	
6 Elbow Flexion	Arms: 1	A one on the elbow. The inside of the elbow it's thick and tight, but on both sides it's loose
	Upper body: 0	
	Lower body: 0	
7 Shoulder Flexion	Arms: 0	Tightness around front deltoids, limiting range of motion
	Upper body: 1	
	Lower body: 0	
8 Shoulder Extension	Arms: 0	Similar to above
	Upper body: 1	
	Lower body: 0	
9 Shoulder Abduction	Arms: 1	"Little mobility restrictions throughout the length of my arm I guess and actually a bit of tugging around the waist where the strings are."
	Upper body: 1	
	Lower body: 1	
10 Shoulder horizontal flexion	Arms: 0	A one around the front shoulder (deltoids)
	Upper body: 1	
	Lower body: 0	
	Arms: 0	A one around the front shoulder

11 Shoulder horizontal extension	Upper body: 1	
	Lower body: 0	
12 Hip flexion	Arms: 0	A one “around the buttocks.”
	Upper body: 0	
	Lower body: 1	
13 Hip abduction	Arms: 0	Just a little restricted at the base of the side slits
	Upper body: 0	
	Lower body: 0.5	
14 Knee flexion	Arms: 0	Zero everywhere
	Upper body: 0	
	Lower body: 0	

As seen in Table 2, elbows, shoulders, and buttocks had recurring mobility restriction ratings. Hip abduction resulted in a rating of 1 at the top of the side slits. The participant noted two positions (position 1 (standing) and position 9 (shoulder abduction)) where a restriction was felt in a line up the entire body. Three positions were given a rating of zero everywhere (position 3 (horse mounting motion), position 4 (sitting down on a chair), and position 14 (knee flexion)), and none of the ratings exceeded a level 1.

Semi-Structured Interview

The semi-structured interview (see Appendix 4) was designed to get more insight into the participant’s experiences in the wear trials in the mobility test. The participant made comments recorded throughout the research that were interesting but required more contextualization. Because this research had only one participant, he acted as the control and the experimental group. The participant based his observations about the pourpoint on his prior experience in clothes, a fact illustrated by frequent direct comparisons between the pourpoint and other articles/types of clothing. It was for this reason that the wearing sessions were done in the participant’s home, and that he was given freedom to choose how he spent each wearing session, because this could facilitate comparisons with the participant’s “normal” experience in clothes, and the experience of doing them in the pourpoint. Attempting to get at the participant’s account of his own experience can serve to understand how he created this meaning. Further, as identified in the literature review, comfort is a highly complex concept that relies on individual perception and context to become meaningful. In this way, examining the participant’s subjective

assessments in the semi-structured interview was important to gain insight into how he made sense of and measured his experience wearing the pourpoint. Questions targeted basic activities (sitting, standing, dressing, and undressing), mobility and comfort in the garment, and other related elements of dress worn with it. Additional questions were included during the interview to bring out greater detail or encourage the participant to explain his perceptions in more detail. The audio recording of the interview was then transcribed, coded, and analyzed for important and recurring themes and concepts in the data.

In the wear periods, the participant mentioned several recurring themes that were further examined in the semi-structured interview. He repeatedly described the pourpoint as being relatively neutral and/or comfortable to wear. Recurring themes were shoulder/arm mobility, thermal comfort, the impact of the hose on the wearing experience, the front neck area, the long, articulated sleeves, and the buttons. These topic areas were subject to further inquiry in the mobility testing/semi-structured interview.

The participant described basic activities as being comparatively comfortable. Standing in a neutral stance (arms at sides, relaxed) did not elicit any particular feelings of discomfort or restriction. Sitting was described as somewhat uncomfortable due to the strings connecting the pourpoint to the hose, but that this was not a major issue: he could get used to it over time. The participant's experience of dressing was related mostly to the time it took to do up the pourpoint's many buttons, but that within the span of the research (dressing seven times), he developed muscle memory and strategies, such as not unbuttoning all of the sleeve buttons, to make dressing easier. In contrast, undressing was described as time-consuming, less so than for dressing, but not challenging.

In terms of mobility, the participant identified raising his arms, squatting, and exertion potential as restrictions. Raising his arms fully was still possible, but it was not as easy to perform. Squatting was restricted due to the strings tied into the hose. The participant also said that he likely would not be able to run as fast or as comfortably in the pourpoint ensemble, but that "it's more of a matter of comfort" than mobility restriction. Overall, he described some areas of moderate limitation on mobility, however did not describe them as debilitating.

When asked to rate the overall comfort of the pourpoint ensemble on a scale of 1-10, (one being extremely uncomfortable and ten being extremely comfortable), the participant rated it

with a 6. He was then asked to explain his rating, in order to get a better sense of why he chose it. In his estimation, a rating of 1 would indicate extreme discomfort that verges on pain, while 10 would be a lack of sensation, like being naked. He removed points due to the annoyance of putting it on (primarily due to the buttons), because it was bulky, and because he found it to be hot. When asked to describe why he awarded it a six on a 10-point scale, he said:

“I mean like once you get used to it is just basically like an extra like heavy sweater so it's like you're wearing like winter clothes all the time, which are actually less comfortable than winter clothes because of the buttons and cause you have to do all that up. So like winter clothes except for less bulky and a bit less comfortable.”

This particular quote shows how the participant used other types of clothing to make sense of the experience of wearing the pourpoint. Additionally, it hints at the importance of time that the participant assigned to his experience of comfort in the pourpoint: after an initial period, the pourpoint gained a degree of familiarity and comfort. According to the participant, the pourpoint was decidedly not as comfortable as a sweater, but it was also not so uncomfortable that it couldn't be “gotten used to.”

The participant used comparisons to other garments throughout the research, usually to bulkier cold-weather garments. In the wear trials, the participant repeatedly referenced sweaters as being similar to the reconstruction pourpoint, describing a relative comfort he could compare to modern sweaters, but also a degree of discomfort related to feeling hot in the pourpoint, which was uncomfortable in hot summer weather:

“It's very hot? Well, not that hot because it's a bit colder right now. But generally it's warmer than something I'd usually wear especially during the summer.”

This explanation hints at the contextual nature of comfort, in this case the external environment that impacts how the participant experienced the garment.

The wearing process created data situated within the context of a reconstruction pourpoint (and its accompanying garments) and the body of the chosen participant. This introduced manifold limitations into the research, including the divergences between the reconstruction pourpoint and the original, the body of the participant and the original wearer, and the impact of not recreating a full, historically-accurate ensemble. These findings must therefore

be analysed within the limitations. The data created through the wearing process may be brought together with the making-process data in order to address the research questions in the next chapter.

Chapter 6: Interpretation of Findings

This thesis seeks to answer the question, “What can we learn about body-garment interactions through a case study on the pourpoint of Charles de Blois?” Secondly, it addresses the question, “Can the combined processes of making and wearing a reconstruction pourpoint help to understand body-garment interactions?” The processes of making and wearing a reconstruction of the pourpoint of Charles de Blois allowed an in-depth observation of its cut and construction, and the ability to think of this garment in relation to the mobile body, from the perspective of both the maker and the wearer, something that is currently unlikely to occur with the original garment. Making the reconstruction pourpoint was an iterative, reflexive process of considering the logic of the pourpoint’s cut and construction based on the embodied knowledge methodologies used by researchers Woodyard, Dowdell, and Tiramani, that was joined with an exploration of how this garment (together with a pair of non-historically accurate hose) may have interacted with a mobile body.

The making and wearing processes contributed two sets of findings that were ultimately able to inform each other in certain ways. Though with significant limitations, which can be examined through Ingold’s two definitions of “telling,” the reconstruction suggested that aesthetics, labour, and a judicious use of materials were balanced throughout the making process.¹⁴¹ The making process also contributed to the formulation of questions about the garment that could be explored in the wearing process, or in future research. The wearing process was designed as an exploration of how the garment may have been intended to interact with a mobile body. This portion of the research also had significant limitations, from the unquantifiable divergences in the body of the research participant from the body of the original pourpoint’s wearer(s) to the lack of quantitative measurements of mobility and comfort. The wearing process was designed to bring out subjective, context-specific information about how the reconstruction pourpoint interacted with the participant’s body. The findings underscore the context-specific nature of mobility and comfort in clothing and suggest an interplay between aesthetics and functionality in the pourpoint’s creation.

¹⁴¹ Ingold’s two definitions of “telling” are (1) to discern, and (2) to communicate stories. See Chapter 4: Methodology, page 46 for more detail.

Overall, the combined processes of making and wearing allowed the researcher to explore understudied aesthetic and functional dimensions embedded in an artifact and speculate on the balancing act and priorities that shaped its existence. In the case of the pourpoint of Charles de Blois, findings first reveal the balancing act between aesthetics and functionality. The makers took many measures to ensure the garment would be aesthetically harmonious, such as the symmetrical and directional placement of motifs in the most visible sections, but also created a garment that could be readily used, as was demonstrated by the results of the mobility tests. Moreover, the evidence unearthed by the research and addressed in this chapter can also suggest that the pourpoint of Charles de Blois should be understood as a garment intimately related to the mobile body. Through this case study, the maker's and wearer's body-garment interactions were able to reveal some insights on a specific garment and help formulate questions for further inquiries. Taken together, the research demonstrates how the making and wearing processes can be used as embodied research tools to learn more about what may have been experienced by the maker(s) and wearer in the past.

What Can be Learned from the Making Process?

Paramount to an understanding of the making portion of the research are its potential and limitations. The latter include the use of modern materials, my skill set as a twenty-first century maker, and potential deviations present in Marie Schoefer's pattern. Ingold's dual definition of "telling" can serve to illustrate and account for the knowledge produced in the making process while acknowledging both its power and limitations. Overall, the process drew heavily from Woodyard, Dowdell, and Tiramani, who used the (imperfect) making process as a way of knowing. Despite its limitations, the reconstruction of the pourpoint of Charles de Blois, through the maker's body-garment interactions, brought out information and further questions that would have been less accessible when using other research methods. In this section, I will delve deeper into the nature of the pourpoint reconstruction process as an example of body-garment interactions, as conceptualized through Ingold's two definitions of "telling." I will then discuss some of the conclusions that, framed by the research limitations, can be drawn from the reconstruction process, as examples of how maker body-garment interactions furthered an understanding of this rare garment.

The pourpoint reconstruction process can be examined through the lens of Ingold's two definitions of "telling," as a way to give meaning within the context of its many limitations. At the centre of the present research and its meaning is hand sewing. In comparison with machine sewing, the hand is immensely more adaptable. As a result, hand sewing is an endeavour that provides the needleworker with a variety of potential construction methods. As Tiramani concludes about her own reconstruction process, "[b]y its very nature, a reconstruction [like Tiramani's] cannot be entirely conclusive: instead it should be viewed as an experiment or conversation with history."¹⁴² Given the wide array of possibilities afforded by the needle in hand, choosing the most efficient construction technique is hardly a defined or simple right-or-wrong process. Using Ingold's approach, I attempted to *tell* which method might have been used in the original pourpoint throughout its reconstruction. I was doing this both through reflexively considering the material realities of the making process and through the examination of my data on the pourpoint. Through the making process, I was able to test methods and potential reasoning the original makers may have used in the fourteenth century. I was, however, limited by a number of factors, from missing information from the garment itself to my lack of experience with medieval sewing and my perspective as a twenty-first-century needleworker who grew up using machines in addition to hand processes. This likely impacted the reconstruction process in ways both large and small as hand sewing is a more flexible technique offering more potential stitches (for example, running stitches, backstitches, whipstitches, etc.) whereas a common sewing machine offers a single stitch type (a lockstitch) that can vary only in length and direction. Because of this, I am likely not aware of some of the ways I can use different hand-stitching techniques to my advantage. My reconstruction diverges in perceptible and imperceptible ways from the original, and the divergences *tell* of my making journey. These two types of "telling," the act of discerning and the act of communicating or expressing stories, are reciprocal in the making process and help to conceptualize my reconstruction as a tool to learn more about the original pourpoint of Charles de Blois.

The reconstruction of the pourpoint gave me an opportunity to consider each piece of the garment individually and to think through the making process. How is this piece treated and how does its treatment impact all the other pieces of the puzzle? For example, attempting to determine

¹⁴² Tiramani, "Reconstructing a Schwarz Outfit," 296.

how the sleeves were constructed forced me to carefully observe photos of the outside and the few photos I had of the interior. In doing so, I considered the order of operations (what should I put together first? How will that impact my next steps?) and some of the physical repercussions this might have on the rest of the garment (how will my treatment of the armseye seam impact the padding and quilting process, but also the function and appearance of seam?). Then it was a process of trying a method and evaluating its results against my data on the original garment. The process was even more extensive than drawing a garment in great detail, as championed by Mida and Kim's "slow approach to seeing."¹⁴³ The time spent making pushed my seeing capabilities as well as my thinking skills. Through this dual thinking/doing approach, I could attempt to experience what the original makers may have also experienced. I have no way to know if my experience is historically valid and the information I gained by thinking through each piece of the garment during the making process must be considered critically.

To give meaning to my research findings in context with their limitations, I find Ingold's two definitions of "telling" to be a useful way with which the significance and meaning of the making process can be conceptualized. To illustrate this, I will first summarize the limitations surrounding the making process, followed by a more detailed conceptualization of the making process using Ingold's "telling" approach.

Limitations

The process of making a reconstruction pourpoint has many limitations. First, though I had a great deal more access to the original garment than given for many reconstruction projects, I was still limited in the data I could retrieve from the original pourpoint. I collected as much data as was permitted in my five-day research appointment, but the fact remains that, once away from the museum, I was still working from a limited set of photographs and notes. I did not have the possibility of going back for further observations. More critically, I was not able to see the interior of the garment. As a result, it was difficult or impossible to determine or assess for myself many construction details. I did have at my disposal several photographs taken by Marie Schoefer during the conservation treatment of the artifact c. 1980, however these resources were inexhaustive, particularly for the insides of the sleeves (which were not visible in any

¹⁴³ Mida and Kim, *The Dress Detective*, 33.

photographs). The data I collected and the lack of full, continuous access to the pourpoint limited my ability to reconstruct the pourpoint accurately.

My approach was rooted in one garment, which may not be representative of medieval sewing techniques or garment construction as a whole. Comparing the pourpoint of Charles de Blois with other surviving garments of the same type could provide a wider array of findings about the artifact selected. For this project, I relied on my observation of the garment's cut and construction and the stitches and techniques that I could recognize. I also drew from information found in the object file. I do not know how accurate the information in these files was. Not until I used the pattern created by Marie Schoefer could I begin to assess some of its accuracy. I supplemented my observations from the primary source and materials in the object file with information on stitch techniques from secondary sources, as my lack of access to the interior of the garments meant that I probably could not fully identify all the stitches used in the pourpoint. As a result, my work is not generalizable to medieval garment construction generally or even merely to pourpoints/padded medieval garments broadly.

I am limited in terms of my skills and training as a stitcher, being a twenty-first century-based, relatively inexperienced professional garment maker. I do not have the extensive years of training of researcher-practitioners such as Tiramani or Woodyard. I can only interpret the construction of the pourpoint based on my own experiences and range of techniques I have been exposed to. This meant that I was sometimes unable to choose one method that seemed markedly "better" or more fitting than another. In these moments, the making became a process of trial-and-error. Choices or techniques that felt "wrong" or that perceptibly diverged from the original pourpoint were, however, interesting in and of themselves and could be areas of investigation for future research. For example, the way in which I finished the armscye seam allowances could potentially be attempted in a different way to give a result that is truer to the appearance of this area in the original garment seen in photographs. The making process is informed and limited by my current skills but even errors can be seen as steps towards finding more accurate sewing methods.

The materials available impacted my experience of the reconstruction process. Materials available now are most likely different from their equivalents in the fourteenth century. Certain materials may be closer to their medieval counterparts or merely less impactful on the making

process. For example, though the thread I used was likely of a different weight and quality than the linen thread used in the original, I was still able to find a reasonably equivalent 2-ply thread that served the same function. On the other hand, I was unable to find anything similar to the original gold and silk lampas fabric, either in aesthetics, construction, or materials composition. The plain weave linen I chose appeared to be of comparable weight, though this was impossible for me to gauge without touching or otherwise testing the fabric of the original. Upon handling of my chosen textile, I began to feel that the linen was slightly too coarse. Each choice of material introduced a level of interpretation and divergence from the original pourpoint that impacted my haptic experience of the reconstruction process and, very likely, the wearer's experience.

Framing the Research Findings Through Ingold's Telling

Though clearly limited, the making process was an ongoing reflexive learning experience about the original object, which finds expression through Ingold's understanding of "telling" as being able to both discern and communicate knowledge. As I undertook the cutting out and making up of each section of the garment, I was brought to looking at each piece closely, through the notes and photos from my research appointment, but also through the physicality of my reconstruction. It was these observations that formed the basis for my reflexive journaling. As discussed in Chapter 4 (Methodology), discerning is one of the senses of the word "telling," which is precisely what I was engaged in doing through the process of making the reconstruction pourpoint. The resulting reconstruction can be thought of as a manifestation of Ingold's other sense of "telling:" the communication or recounting of stories, because my pourpoint tells the story of my making journey, which is a central component of my research process. My reconstruction's divergences and the ways in which it is true (or not) to the original communicate my research process. In a way, the reconstruction pourpoint can be seen as an artifact that stands alongside and in support of my research findings.

A reconstruction considered perfect in process and materials would be a carbon copy of the original and, as such, a different project than the one I undertook. In the context of this research, and in most cases of reconstruction, perfection is impossible. However, the embodied process of making, followed by the assessment of the research findings, informs our understanding of how this garment may have been made, whether through mistakes or methods

that give results comparable to the original. The body-garment interactions¹⁴⁴ (of myself as the maker with the reconstruction pourpoint as the garment in question) that occurred in the making process created data from which a deeper understanding of this garment became possible. In the following section, I will interpret some of the research findings and explain their possible significance to our understanding of the pourpoint of Charles de Blois and of body-garment interactions more generally.

The Reconstruction of the Pourpoint of Charles de Blois as a Story Based on Body-Garment Interactions

The making process revealed information about why the pourpoint may have been cut and constructed in the way it was. Overall, the process of cutting and constructing the reconstruction pourpoint suggested that the original maker(s) may have balanced certain, sometimes conflicting, priorities. In some instances, the making process was not conclusive, hinting at a potential for further inquiry in future research projects. For example, my treatment of the horizontal elbow seams of the sleeves successfully enclosed the raw edges and kept the seam allowance narrow enough to not hinder movement in this area. However, this solution was physically difficult to work and there are likely other potential methods that could be tried in this area. One of the key findings that relates to making pertains to the cutting of the precious fabric: through the careful placement of the motifs and use of the textile, the maker(s) balanced aesthetic and resource-conservation priorities. The making process also revealed some of the significance of the buttons and *grande assiette* armscye. Finally, the focus on key findings through the making process leads me to review the whole garment in terms of relative time spent on each aspect of its construction.

¹⁴⁴ The maker's body-garment interactions are conceptualized in this research as the dialogue between the hands of the maker and the material realities of the reconstruction pourpoint. The intellect alone cannot sense what my hands can perceive through the manipulation of the different parts of the reconstruction. It is partially through the use of my hands that I was able to learn more about the construction of this garment.

Through my observations of the original pourpoint and experience of cutting the fabric for the reconstruction, I can suggest that the cut of the cloth appeared designed to make full use of a potentially narrow and precious textile. On the original, the octagonal motifs are centred at the upper back, and the motifs are matched across the fronts, and across the upper and lower back pieces (see Figure 1 in Chapter 1 (Introduction) and Figure 21 below). The piecing was artfully hidden in less conspicuous areas, including the sleeves and the sides. The overall effect remains strong despite the fair amount of piecing that may not have been done if the fabric was less precious or was wider to begin with. The aesthetics of the original garment clearly indicate that showing the textile to its best advantage was important.



Figure 21. Back waist seam. Note the vertical alignment of octagonal motifs. Photograph by © Katelin Karbonik.

Though the fabric of the reconstruction did not have a directional motif like the original, I cut each piece following the original grain orientation, in order to see how they may have fit onto the original fabric yardage. The widest piece was the upper and lower back. This may explain the piecing at the back hem (pieces H and N): piecing was likely necessary as the needed width of the hem section exceeded the width of the textile. The longest pieces were the two fronts: the front of a garment is usually most visually apparent and the uncut textile panels reflect this. The rest of the pieces were comparatively small. All parts of the garment included piecing, if one

considers that the large underarm triangular parts (O & Q) were sewn to the front panels, which appears to be the case in photos of the original's interior. While I cut the Schoefer pattern to stay as close as possible to the original pourpoint, the width of the linen I used was likely much wider than the textiles in the original pourpoint. As a result, I could easily have had far less pattern pieces overall. Future research could attempt to eliminate the piecing that occurred throughout and consolidate pieces H + L + N in the back, and certain parts of the sleeve (like V + C/A + B) to take advantage of textiles currently available.

Making the most of the precious fourteenth-century textile is demonstrated in different ways. Pattern matching takes extra fabric by limiting potential placement of pattern pieces. Moreover, it is probable that the original maker(s) could have consolidated several pattern pieces while maintaining fit, but this was likely impossible. The original maker(s) had to be strategic. The fact that the original pourpoint shows such careful matching is a hint that the original makers balanced competing aesthetic and fabric conservation priorities. Another aspect of the pourpoint's design appears to capitalize on the effective use of small textile remnants: the covered buttons provide an opportunity to use many small scraps of fabric. Pattern matching, piecing of larger pattern components, and the presence of fabric-covered buttons suggests that the original maker(s) prioritized fabric economy alongside a fashionable, harmonious aesthetic.

The tight fit of the sleeves and unique *grande assiette* armhole are emblematic of the pourpoint and one of the features of this garment that initially drew me to this object. Through the process of cutting out and assembling the sleeve pieces, I came to realize that the upper sleeves were essentially a collection of rectangles and triangles, tapered or rounded in to fit more closely to the body. This is not obvious when one looks at each piece individually (see Appendix 2) but it becomes clearer when observing the assembled upper sleeve in Chapter 4 (Findings), and Figure 12. That such a curved, body-delineating component could be reduced to rectangles and triangles (which are shapes that are economical in terms of fabric usage, while circles and curves generally are not) is very interesting. This insight became apparent during the physical process of cutting and assembling these pieces, where the making process facilitated an ongoing reflexive consideration of the garment I was making.

The many large, fabric covered buttons (seventy-one buttons total on the original pourpoint, each approximately 2 cm in diameter) are a second emblematic feature of the

pourpoint. The visual impact of the buttons has already been discussed (see Chapter 2: Thick Description), but it was through the making process that I experienced the considerable investment of time required to cover and sew on all the buttons and stitch all the corresponding buttonholes. Even though the original maker(s) likely were able to stitch more quickly than I, it is clear that a lot of work went into the buttons and buttonholes, relative to the rest of the pourpoint. Additionally, the wearer of the reconstruction pourpoint pointed out how cumbersome the numerous buttons were, to do and undo, but also in terms of the bulk they added around his physical space. This suggests that including so many buttons was deemed important and worth the button's potential unwieldiness. In addition to quantity of buttons, their size and the contrasting green silk buttonholes suggest that the prominence of these buttons was important.

It can be posited that the buttons' importance is functional as well as aesthetically fashionable. More closely-spaced buttons reduce gaping, helping to create the tight fit of the sleeves and body of the garment, and serve to emphasize the bulging chest that was fashionable for a certain segment of the population at this given time and place. The fashion for a prominent chest, small waist, and narrow hips may explain why the front buttons are round above the waist and flat below: this serves to emphasize the bulging chest and minimize the waist and hips. The presence of these large buttons may also offer a clue as to whether the pourpoint was meant to be worn under armour. Heavy plate armour, or even chain mail, would press into and potentially get caught on such large buttons. Unless the armour was designed specifically to accommodate the buttons, it seems unlikely that this garment would be worn under armour. The cut of the garment, the tight fit it yields, and the number, size, and shape of its buttons makes the artifact firmly anchored in the fashion of the period.

Despite the previously stated limitations, overall, the relative time each task of the making process took can serve to illuminate some of the priorities the maker(s) may have had in mind while constructing the original garment. The amount of piecing in this garment suggests that the textile was more valuable than the labour required to make it, or that only a small length of textile was available, or both. A great deal of time was spent working the seventy-four

buttonholes¹⁴⁵ and covering and applying the corresponding buttons to the reconstruction garment relative to the rest of the construction. The amount of buttons helps to stabilize the opening edges. The quantity and sheer size of the buttons and contrasting green silk buttonholes are aesthetically prominent but also important for maintaining the tight fit of the garment. The amount of work put into the pourpoint's sleeves and front openings reflects the dual aesthetic/functional purpose of these features. This relativization of assembly time is not necessarily readily accessible through simple observation of the garment, but, through the making process, it becomes quite obvious.

What can we learn about body-garment interactions through a case study of the pourpoint of Charles de Blois? From the making process, the physical and intellectual interface between my body and the reconstruction pourpoint revealed insights about why the pourpoint may have been made in a particular way. Using Ingold's two senses of "telling," discerning and communicating, the process of making a reconstruction pourpoint was given meaning within the context of its limitations. The reconstruction pourpoint was used to physically test out different theories of construction, where my body's experience of creating the garment sought to bring out details that may have been known and experienced by the original makers. In reconstructing the pourpoint of Charles de Blois, the maker's body becomes a central tool of inquiry capable of interrogating the workmanship of needleworkers of the fourteenth century.

What Can be Learned from the Wearing Process?

What does the process of wearing the reconstruction pourpoint of Charles de Blois tell us about body-garment interactions? Again, this research must be contextualized in terms of its limitations, which are numerous given that it was designed to be exploratory and grounded in one participant's experiences. The data recorded during the wear trials, the mobility test, and the semi-structured interview reveal that comfort and mobility can be complex, whole-body experiences. This data permitted me to explore the possible ways the reconstruction pourpoint interacted with a mobile body. Several themes related to body-garment interactions were drawn

¹⁴⁵ The original garment has seventy-one buttons, due to the missing cuff and the lowermost two buttons of the front closure were missing. The reconstruction included these missing elements to replicate the wear experience that was most likely experienced by the original wearer.

from the research data. The participant expressed comfort and mobility concerns related to posture, and identified issues regarding heat, the tying of the hose to the pourpoint, the buttons, and the sleeves. He also noted a connection between his upper and lower body during certain arm movements. He repeatedly referred to modern garments, his point of reference, as comparisons with which to discuss his experience with the pourpoint. Overall the garment appeared to offer significant mobility to the participant, particularly at the arm-shoulder junction. This section will begin with a discussion of the limitations of the wearing process and then delve into each finding in more detail. Finally, I will return to some experimental methods that may be able to shed some light on wearer body-garment interactions.

Limitations

The wearing process was exploratory and grounded in a single participant's experience of a particular reconstruction garment. I made no modifications to the sizing of the pourpoint pattern to accommodate a specific wearer. Doing so would have introduced an undesirable level of interpretation, as I do not know exactly how the pourpoint's original makers would have approached the task of fitting the pourpoint to another body. It was therefore necessary to find a person who fit the garment as closely as possible. This limited my choice of participant significantly. Finding the "right" body still had the effect of introducing a level of interpretation into the wearing process, as it is impossible for me to know what the original wearer's body was like and I was still required to make an assessment on the suitability of each potential wearer. A further limitation is related to my chosen research methods: this research is exploratory and situated in a participant's experience of a particular garment (and its associated accompaniments, e.g. the hose). The results from this research are not generalizable. A further avenue for research would be to design a similar study with multiple wearers or to introduce quantitative measures of mobility and/or comfort.

Findings from the Wearing Process

Framed by these limitations, it is possible to discuss findings drawn from the data about the participant's experience of body-garment interactions with the reconstruction pourpoint. The first finding relevant to body-garment interactions relates to the participant's comments on posture, which appeared during the wear trials. Interestingly, these comments were somewhat conflicting.

Initially, the participant described how a hunched posture would lead to “a bit of pressure around my neck... the chest area around the neck feels tighter.” The other posture-related comment was that the heaviness of the garment led to increased effort in maintaining posture. Taken together, it appears that the reconstruction pourpoint enforces an upright posture through a high and fitted neckline while weighing on the body of the wearer somewhat. The relevance of this finding to the original pourpoint is unknown, because as previously discussed (see Chapter 1 (Introduction), page 8), posture is a culturally situated behaviour. However, it does suggest that the pourpoint favours an upright position and that it was not designed for a slouched posture, despite its heaviness. Taken more abstractly, the pourpoint reconstruction can impact body posture by creating a normative shape for the body to adhere to.

Another finding from the wearing pertained to heat, which came up repeatedly through the wear periods and semi-structured interview. Heat relates to comfort, but the data suggests it can also affect mobility. The participant repeatedly compared the reconstruction pourpoint to warmer clothing. He commented nearly daily about the thermal effect of the pourpoint, a situation exacerbated by the fact that the wearing periods happened during the summer (during the wear periods, the temperature in Edmonton ranged from a high of 27° to 30° Celsius).¹⁴⁶ The heat led to the participant assigning a lower comfort rating to the garment but it also impacted his mobility and exertion potential, indicating that a sensation related to comfort can progress to the point of impacting mobility as well. In future experiments, a wear trial in winter could be interesting to explore if the heat provided by the padded and quilted garment would have an opposite (i.e. positive) effect on the comfort rating overall and even impact mobility favourably. The padded and quilted nature of the pourpoint is very likely a cause of thermal heat discomfort in summer but it would also be interesting to find out in future studies if an unpadded and unquilted pourpoint in the same cut also affects thermal comfort under similar conditions. Researching the use of padded and quilted clothing in the fourteenth century and the use of such garments created in body-delineating styles could also lead to interesting findings linking thermal comfort and fashion in medieval times.

¹⁴⁶ “August 2020 Weather Edmonton, Alberta,” Accuweather, accessed October 18, 2020, <https://www.accuweather.com/en/ca/edmonton/t5j/august-weather/52478?year=2020>.

The hose attached to the lower portion of the reconstruction pourpoint heavily affected the wearer's experience. The participant described impacts on both mobility and comfort due to the tying of the hose to the pourpoint. As seen in the previous chapter, the participant explicitly referenced the hose as being uncomfortable and/or restrictive in the wear periods (see "squatting," Table 1). In the case of squatting (Figure 22), such an activity elongates lower body muscles and may involve extending both arms horizontally in front to achieve greater balance. Such elongation could put an enormous amount of stress on upper and lower body garments, even when they are not tied together, but even more so when this is the case. As a result, the uncomfortable feeling experienced by the participant, who explained how "the strings connected to the hose" also "[r]educes arm mobility," makes sense given the lower and upper body elongation. The fact that leather was used in one area (most central tie at centre back) in the original pourpoint suggests the need for a more giving material that can provide a certain degree of stretch. As such, this change of material suggests that a similar strain may have impacted a fourteenth-century wearer. If extreme activities, such as squatting, are deemed uncomfortable in the pourpoint ensemble, other types of activities that may be more moderate were also impacted by the pourpoint/hose connectivity.



Figure 22. Position 5 (squatting down onto ankles). Photograph © Katelin Karbonik.

During the mobility trials, the tying of the hose can potentially be seen to impact a large number of the positions tested, even more moderate positions, though further testing would be needed to determine the exact nature of this impact. Lower body restrictions were most noticeable to the participant. He specifically mentioned the hose as restrictive in position 5 (squatting down onto ankles, Figure 22), and position 12 (hip flexion, Figure 23). This may, once more, be the result of the interior ties acting as tension points that pull the pourpoint and the hose tightly when these positions are adopted. This could cause pressure on the body and lead to discomfort. A fourteenth-century wearer may have been used to this and may also have had different types of hose that better accommodated moderate expansion. The tying may also have been done differently depending on the activities conducted, which was not accounted for in the wearing trial. One of the most important limitations when assessing our finding is that the hose used for this research were not historically accurate. As a result, the research findings are limited in their ability to speak to how a historically accurate ensemble would have affected our participant.



Figure 23. Position 12 (hip flexion). Photograph © Katelin Karbonik.

The whole-body impact through the act of anchoring the pourpoint to the hose may have broader consequences for mobility in the upper body, even when the legs are not bent. In position 9 (shoulder abduction, Figure 24), the connection of the hose to the pourpoint still created a line of restriction through the entire body. The participant described it as "...a bit of tugging around the waist where the strings are" (see Table 2, under position 9, summary). This finding for a position that is not the most extreme leads me to speculate that the anchoring of the pourpoint to the hose could impact other movements that received lower ratings throughout the whole body, such as position 1 and 2 (raising arms upwards and reaching down to touch one's toes). Other evidence also supports the centrality of this pourpoint/hose connection in the wearer's experience: in the semi-structured interview, the participant spoke of the connection between the pourpoint and the hose as more uncomfortable than similar modern garments (like snow pants) because the hose are tight, unlike comparable connected garments used today. Though the exact nature of the impact of tying the pourpoint to lower-boy garments is not fully explored, this research suggests that the relationship of the upper and lower body through the pourpoint-hose ensemble may be significant.

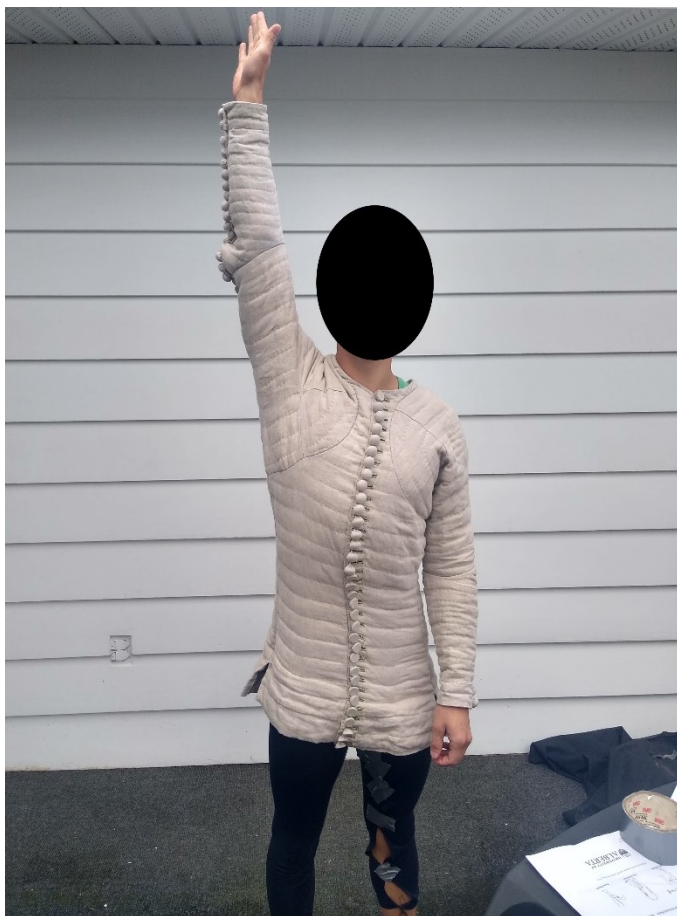


Figure 24. Position 9 (shoulder abduction). Photograph © Katelin Karbonik.

The buttons were a recurring theme during the wear trials and the semi-structured interview, but not the mobility trials. This indicates that the buttons were a significant part of the wearing experience from a comfort, rather than mobility, perspective. However, the participant noted their impact on the dressing and undressing process (see Table 1), which were important enough to merit reducing the overall comfort rating of the garment (see pages 89-90 of Chapter 5 (Findings)). This finding is interesting and suggests that body-garment interactions can be conceptualized to include more than simply wearing, which is supported by Tullio-Pow's and Strickfaden's Clothing Taskscape model for considering clothing in interaction with the wearer's practical needs.¹⁴⁷ The participant also noted that the buttons were liable to getting caught or hooking on other objects, such as when typing or walking past other objects (see Table 1 under "typing" and "walking"). Finally, the participant described how the buttons would dig into his

¹⁴⁷ Tullio-Pow and Strickfaden, "Mapping the Clothing Taskscape," 1.

body when laying down (see Table 1 under “laying down”). Both of these are examples of external objects impacting the body-garment experience in a negative way, which, though not strictly a body-garment interaction in itself, was deemed to be important enough to the participant that it has been included as a major facet of the wearing experience. The influence of the buttons suggests that body-garment interactions can be conceptualized to include dressing/undressing and the impact of the external environment on the body/garment unit.

The sleeves are a complex and emblematic part of this garment that affected the participant’s wear experience in multiple ways. As architecture and design researcher Simco noted in her paper on designing garments for a mobile body (see Chapter 3, Literature Review), the “forward projection of the elbows and wrists and the increased space between the flexed arm and torso” is a movement that can cause stress in tight-fitting garments.¹⁴⁸ In the wear trials, the participant did not note significant restriction of the arms. In the movements associated with forward arm projection (position 7 (shoulder flexion, Figure 25) and position 10 (shoulder horizontal flexion) commented upon in Table 2)), the participant noted a “tightness around the front deltoids,” that, in the case of position 7 (shoulder flexion), resulted in some mobility limitation. That being said, the participant was still able to carry out both motions. In position 9 (shoulder abduction, Figure 24), the participant was visibly able to carry out this motion, as in position 7 (shoulder flexion, Figure 25), indicating a lower level of mobility restriction, which is also supported by a rating of 1 on the three-point scale. This suggests that the level of restriction of the sleeves is relatively low. Position 9 (shoulder abduction, see Figure 24), a motion that lifts the arm straight up but not forward, was experienced by the participant as having “little mobility restrictions throughout the length of my arm... and actually a bit of tugging around the waist where the strings are” (see Table 2 under position 9, summary). As discussed previously, this motion is an example of the impact of the attachment of the upper and lower body through the hose, with repercussions on arm mobility. Testing arm movement without the connection of the pourpoint to the hose would be beneficial in future studies. Overall, the findings indicate that the tight sleeves of the reconstruction pourpoint did not appear to restrict arm movements significantly.

¹⁴⁸ Simco, “Viewing the Mobile Body as the Source of the Design Process,” 75.

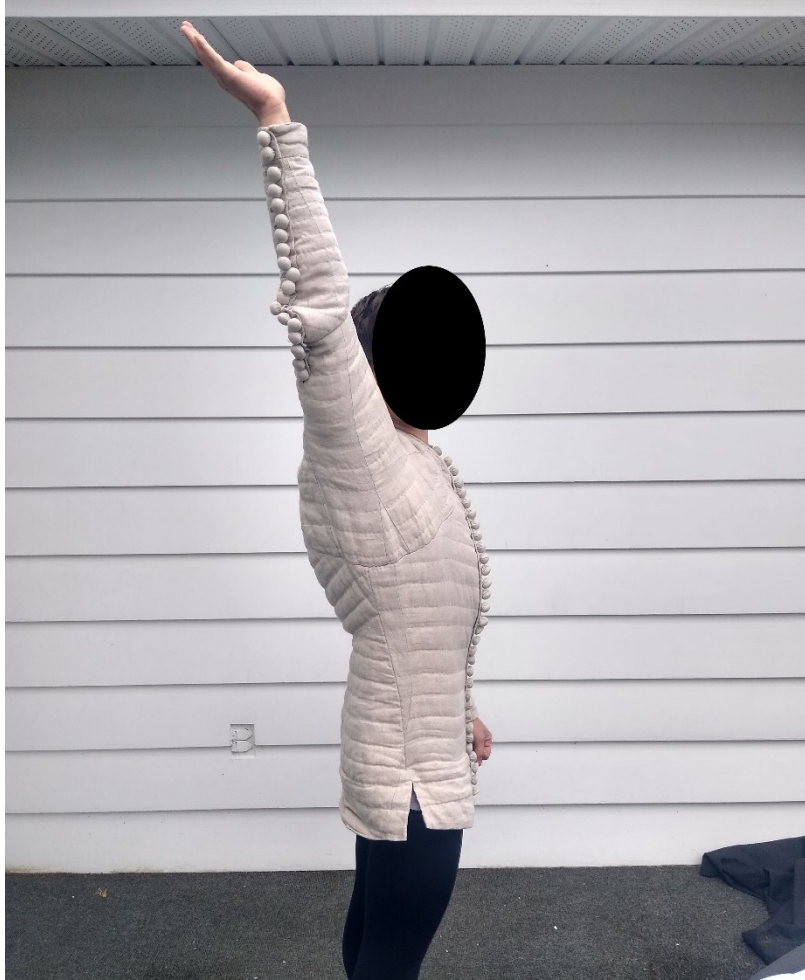


Figure 25. Position 7 (shoulder flexion). Photograph © Katelin Karbonik.

Findings indicate that the articulated sleeves had a slight impact on mobility as they affected the bending of the elbow. In position 6 (elbow flexion, Figure 26), the full bending of the elbow was given a mobility restriction rating of 1, which the participant described as being related to the thickness of the fabric (see Table 2 under position 6, summary). When bending the elbow, the fabric bunched in the elbow crease and was tight, but was loose on the sides (see Table 2 under position 6, summary). The articulated sleeve is designed for a slight bend of the elbow. Mobility restrictions were reported when the elbow is bent farther. On the other extreme, when the elbow is fully straightened, excess fabric gathers at the back of the elbow. However, no mention of restriction due to this excess fabric was noted by the participant. In the semi-structured interview, he did not attribute any significant discomfort or mobility restriction to the sleeves. Despite the thickness of the pourpoint that bunched in the elbow crease when the arm

was fully flexed, the findings support the idea that the sleeves' potential to restrict movement was relatively low.



Figure 26. Position 6 (elbow flexion). Photograph © Katelin Karbonik.

Finally, another facet of the study relates to the perspective of a twenty-first century participant and its impact on his perception of a particular example of fourteenth-century dress. The participant made frequent comparisons to other garments he was more familiar with to illustrate his experience with the pourpoint. These comparisons are grounded in the participant's experience of clothes as a twenty-first century man, meaning they are symptomatic of the limitation of today's bodies experiencing historic clothes: they likely have different expectations of their clothing than the original wearer(s) did. However, the comparisons the participant used can help to contextualize his experience of the reconstruction pourpoint. He compared it to warmer weather garments, including a sweater and a hoodie, and, in the context of the hose, snow pants. All of these are warm-weather garments, and are in line with the participant's reporting that the pourpoint reconstruction was hot, as discussed previously. That the participant compared the pourpoint with "a regular sweater" is interesting from a mobility perspective

because sweaters (and hoodies) are typically made of knit fabric, and are thus able to stretch to accommodate a moving body. The pourpoint reconstruction is made of two layers of plain-weave linen fabric stitched together, which is typically not as able to stretch over a moving body. Instead, the pourpoint relies on cut to facilitate movement. That the participant used such comparisons to extensible garments suggests that the cut of the pourpoint, though tight and warm, can still accommodate significant movement.

In summary, the process of wearing the reconstruction pourpoint of Charles de Blois created a rich data set that speaks to many of the ways in which bodily mobility and comfort are impacted by this particular garment. The reconstruction pourpoint impacted the participants' posture through its cut, propping up his body even while he reported that the garment's weight sometimes caused him to want to slouch. The thick, padded nature of the reconstruction pourpoint also caused thermal discomfort when worn in the summer, to the point of reducing body mobility. Defining characteristics of the garment include the attachment of the upper and lower body through the tying of a pair of hose into the pourpoint, which had a significant impact on the participant's comfort and some impact on mobility. The many buttons also impacted comfort by pressing into the body when leaned upon, as well as complicating the dressing/undressing processes, which are part of a more holistic conception of body-garment interactions. The sleeves, another focus of this research, appeared from the participant's perspective to be minimally impactful on arm mobility, which was supported by the mobility tests. The relatively wide range of motion is supported by the participant's comparisons to garments that, while warm, are typically designed to stretch with the moving body. Taken together, the wearing experience of the reconstruction pourpoint, grounded in the subjective perspective of a single research participant, shows the complex and inter-related nature of mobility and comfort in clothing.

Experimental Approaches to Body-Garment Interaction: Langer's Lines

Returning to the experimental methods described on pages 26-28 of Chapter 3 (Literature Review), the wearing process can be assessed from a mobile body-centred point of view. The work of Tullio-Pow and Strickfaden, and Simco was addressed earlier in the current chapter as it pertained to this theme. The work of Rickard Lindqvist on Langer's lines warrants further consideration as a way to conceptualize the role of grain direction in the *grande assiette* style

sleeves. Lindqvist’s work relating the stretching properties of woven fabric and skin was of great interest to this project. Cut far into the body, the pourpoint’s sleeves are markedly different from modern cutting conventions. Through the wearing process, it was discovered that this style of sleeve afforded the research participant a wide range of motion with limited restriction, mostly concentrated around the front deltoids and only in certain motions. How is this possible? How did the maker(s) of this garment accommodate the wide range of movement at the arm-shoulder juncture? As noted previously, raising or projecting the arms forward creates a larger surface area on the body, especially in the armpit area. To accommodate this change in dimensions, a garment must either stretch in this area or accommodate it with extra fabric. From the wear trials, it is apparent that the sleeve’s high cut into the armpit of the body likely contributes to the capacity of the pourpoint to accommodate the arm’s wide range of motion, reducing the need for stretch fabrics (see Figures 24 and 27).



Figure 27. Hip abduction (position 13). Arms held at rest – note wrinkling emerging from the armpit. Photograph © Katelin Karbonik.

The pourpoint’s cut may explain the significant range of motion given to its wearer, but can the grain orientations of the *grande assiette* sleeves be a contributor? Fabric, like skin, is anisotropic, meaning it stretches unequally along two axes.¹⁴⁹ Taken to one extreme, garments

¹⁴⁹ Lindqvist, “On the Relationship between the Shear Forces in Human Skin and the Grain Direction of Woven Fabric,” 109.

cut or draped on the bias exhibit a high ability to respond to the shape and movement of the body, such as the Vionnet gowns Betty Kirke studied and reproduced as toiles.¹⁵⁰ The seams on these garments must be carefully planned because seams typically reduce the full stretch potential of a fabric.¹⁵¹ By placing the armseye seam towards the middle of the body, where less dimensional changes occur, it can be speculated that the fabric closely delineating the armpit can better accommodate a variety of arm movements because it lacks a seam bisecting the fabric in that area. However, it should be noted that the placement of the grain on the sleeves (see Figure 28) is oriented along the length of the arm, which would reduce stretching along that direction as compared to the use of bias in this area. It can be speculated that this was done because only a certain degree of stretching was desired in this area. By placing the grain along the lengthwise direction of the sleeve, other areas benefitted from the bias' elasticity. This may be the case for the path outlined in blue in Figure 28, which represents the true bias, the direction with the greatest elasticity. This strategically placed gore may allow greater freedom of movement for horizontal extensions of the arms compared with the presence of a grainline (straight of grain or cross grain) in this location. It can be speculated that the dimensional stability of the lengthwise grain was desired along the length of the arm and shoulder, possibly to give stability to this area and reduce deformation over time or else to allow elasticity in other areas, but that the placement of the armseye seam away from the area of greatest dimensional change in the arm/shoulder juncture allows a degree of elasticity necessary to accommodate a wide range of arm positions.

¹⁵⁰ Kirke, "A Dressmaker Extraordinaire," 66-73.

¹⁵¹ Kirke, 69.



Figure 28. : Front of the pourpoint showing grain direction (black arrows), location of the gore (outlined in orange) and the true bias direction of the gore (blue line). Note the high cut of the sleeve close to the armpit, which can accommodate an arm raised high. Photograph by © Lyon, musée des Tissus – Pierre Verrier, modified by author.

How might the quilting pattern of the sleeves play into the question of mobility in this area of the body? As noted on pages 27-28 of Chapter 3 (Literature Review), the quilting pattern of the sleeves bears a remarkable resemblance to Langer's lines (see Chapter 3, Figure 7). The quilting stitches hold the two layers of fabric (exterior (fashion fabric) and interior (lining) layers) together with the cotton padding. As mentioned previously, stitching may have the effect of reducing the extensibility of fabric where it is applied, so it may be speculated that the circular quilting lines were in part designed to reduce stretching of the fabric around the armhole. Do the quilting lines have a relationship to the stretching of human skin in the same area, as seen through Langer's lines? This is not made clear in the research and could benefit from further inquiry. However, it is clear that, to accommodate the wide range of motion at the arm-shoulder junction, the pourpoint's maker(s) brought the sleeve very high up into the underarm. In doing

so, the extra fabric used to closely delineate the armpit area facilitated movement. The placement of the armseye seam far into the middle of the body may be a strategic choice to reduce the restriction caused by seams in the area of the arm-shoulder junction most subject to dimensional change. Approaching the cut of the pourpoint's sleeves from the perspective of the mobile body—one demonstrated several centuries later by Lindqvist—can allow a consideration of some of the numerous factors that contribute to body-garment interactions.

Addressing the Research Questions

This section will attempt to address the research question and sub-question, beginning with the main inquiry, “What can we learn about body-garment interactions through a case study on the pourpoint of Charles de Blois?” Considering the research broadly, it is possible to see that the body was central to generating the research findings. The making process was characterized by my body interacting with the materials and forms of the reconstruction, which, along with my data on the original pourpoint, helped me test construction methods and assess them for their ability to give results that matched the original garment. During the embodied making process, I was able to reflexively consider the pourpoint piece by piece—a very slow and analytical research approach. The resulting reconstruction pourpoint was then given to a participant to wear and experience with his own body. The data drawn from this process shows that the bodily experience of a garment can help to explore its craftsmanship as well as its impact on mobility and comfort. The processes of making and wearing the reconstruction pourpoint reveal that the body is a potent research tool capable of facilitating a reflexive consideration of the physicality of the pourpoint as well as unearthing possible ways it may have been meant to interact with the mobile body of its wearer. Throughout this research, body-garment interactions (first maker-garment, then wearer-garment interactions) act as critical research methods that enable a greater understanding of the original garment.

The embodied reconstruction process brought out information and further questions that would have been less accessible when using other research methods. This reconstruction project found that the pourpoint appeared to balance aesthetic and fabric conservation priorities throughout its construction. Further, the making process allowed me to compare relative amounts of time spent on each aspect of the reconstruction, giving insight into what parts were more time-

consuming, potentially pointing to their importance. Additionally, the experience of making the reconstruction helped me identify areas where further research could be done, potentially through the application of new construction strategies. These findings are in line with the work of Woodyard, Dowdell, and Tiramani, who all used embodied-knowledge methodologies to learn more about historic dress. The body-garment interactions I enacted in reconstructing the pourpoint form the basis for the research findings and provide possible avenues for future research.

The wearing of the reconstruction pourpoint also permitted an exploration of the way the garment may have been intended to interact with a moving body, which is the second component of “body-garment interactions” that this thesis is interested in. Critically, this research points out that there is information that may be brought out of a garment by wearing it, which is often ignored in museum settings where objects can no longer be worn for their continued preservation (see Chapter 4: Methodology, page 41). Though this section of the research was exploratory, it did allow an investigation of the mobility and comfort that this garment may have permitted. In this research, the participant was able to carry out most of the movements tested, indicating that this garment could have been designed to be used for a wide variety of activities. Further, body-garment interactions suggested that there may be a logic to the cut of the sleeves of this garment. Body-garment interactions are a way to learn about how the pourpoint of Charles de Blois may have behaved on a moving body, but also about why it was cut as it was.

Body-garment interactions, including those of both the maker and the wearer, were capable of drawing out unique data potentially unavailable by other means from the reconstruction and wearing of the pourpoint. As previously noted, both of these sections of the research had significant limitations, yet they were still able to contribute to an understanding of the original garment and present opportunities for future research. The body-garment interactions of the maker were used to learn about the priorities and relative importance of different parts of the pourpoint. That the embodied process of making can be used as a research tool on historic dress is reflected in the work of other scholars, such as Woodyard, Dowdell, and Tiramani. The wearing aspect of body-garment interactions allowed an exploration of how this garment may have interacted with a mobile body, indicating how it may have impacted mobility and comfort, but also about why it was cut as it was. As with the making process, the wearing of the pourpoint

also suggested several avenues for future research. In both cases, body-garment interactions form the crux of this research project and were able to shed light on the potential logic and priorities of the original maker(s), and the possible mobility and comfort of the original wearer.

Bringing Together Making and Wearing

This section will address the secondary research question, “Can the combined processes of making and wearing the reconstruction pourpoint help to understand body-garment interactions?” The making and wearing processes were complex undertakings each subject to specific limitations, however, they may be assessed together to see how they relate. Not all aspects of the making and wearing processes can be brought to bear on one another within this research, but the pourpoint’s sleeves may present a unique opportunity to see how making and wearing can inform one another.

The sleeves were a major point of interest in both the making and the wearing portions of the research. In the making process, the cut and construction of the sleeves were governed partly by aesthetic and fabric conservation priorities, and partly by mobility concerns. The sleeves hid more piecing than the body of the pourpoint, so that more prominent areas could be cut with less interruptions. The upper sleeve section was composed of seven pieces that could be understood as forming basic rectangles and triangle shapes, despite their apparent rounded contours. These many pieces also make better use of a narrow length of precious woven fabric. The impact of the sleeves’ cut on a mobile body was a point of great interest in this research due to their tight fit and unconventional (by today’s standards) cut. Tight clothing presents interesting challenges in terms of mobility and is often considered to be indicative of potential restriction and discomfort. However, the participant’s wearing experience of the sleeves did not result restriction or discomfort in a significant way. Though slight restriction was reported around the front deltoids for some motions, the participant was still to a large degree able to carry out the arm motions requested. This finding can be compared with Lindqvist’s work relating to the stretching characteristics of human skin and woven fabric. Though the majority of the motion afforded to the participant’s arms appears to be related to the high cut of the sleeve, which entails a judicious amount of fabric to closely delineate the armpit, the impact of placing the armseye seam at a more dimensionally stable area of the body and the orientation of the grain on the front gore may also have had an impact on mobility. By relocating this seam, the fabric in the area of the body

that changes most drastically (the arm-shoulder juncture) is likely able to move and stretch with the body more easily. The impact of the quilting lines is, at this point, unknown, but might benefit from further inquiry. The similarity of Langer's lines (used in medical surgery) to the quilting pattern of the fourteenth-century pourpoint of Charles de Blois is certainly striking but requires more research to be understood. The rich data set drawn from the sleeves in both the making and the wearing processes offers interesting avenues for ongoing analysis.

To address the secondary research question, a relationship can be drawn between the two corpuses of data resulting from this research. The construction of the sleeves appears judiciously done to make the most of a likely finite piece of precious textile. The high cut of the sleeve at the underarm suggests that the original maker(s) of the pourpoint understood the degree of dimensional change this area of the body undergoes when in motion and knew exactly what was needed to facilitate maximum movement while not creating discomfort or preventing the wearer from placing his arms by his side. This suggests that the maker(s) of the pourpoint were aware of the repercussions of their work on the movement of the wearer and developed strategies to maximize comfort and mobility. Given the judicious use of fabric through the garment, the inclusion of a sleeve that is cut high into the armpit area appears even more deliberate: it can be seen as an investment of a precious resource for maximum return of use by a wearer's mobile body. This is in line with the fact that part of the job of a garment maker is to conceptualize the needs of the wearer in terms of movement. In this way, wearing informs making. In this research, the combined processes of making and wearing have the potential to develop a deeper understanding of the pourpoint that other methods of inquiry may not have uncovered. Unique in cut, the *grande assiette* style sleeves were one of the initial points of interest at the beginning of this research. Through the making process, I came to see the structure and cut of sleeves as likely being economical in fabric usage, despite its large, rounded shape. The sleeves of this garment offer an opportunity to link the embodied knowledge brought out by both the making and the wearing of the reconstruction pourpoint.

Conclusion

The embodied processes of making and wearing are sources of knowledge. In the context of historic dress, both making and wearing are often excluded from traditional research

methodologies. This project used an object-based research approach to fuel the study of the embodied experience of the making and wearing of the reconstruction pourpoint of Charles de Blois, in order to go beyond the limitations placed on the study of this singular garment. My approach combines object-based research methodologies to understand the garment, with embodied-knowledge methodologies able to tease out insight from its making and wearing. Through this process, an understanding of this garment as intimately related to the dynamic bodies of its maker(s) and wearer was developed. This approach is tailored to cut and sewn garments held in museum collections, which stands to benefit particularly due to institutional restrictions placed on their usage in research.

Historically significant and rare, the pourpoint of Charles de Blois is an example of a tight-fitting garment with a cut that diverges in interesting ways from today's clothing. Due to its status as a museum object and its condition, the original pourpoint cannot currently be worn, manipulated, or taken off its custom mount. As a result, some information embedded in the object is currently inaccessible. This research has demonstrated that one particular line of inquiry conducted within limited rules of access can push boundaries of knowledge about the piece. Through the processes of reconstructing and wearing the pourpoint, information unavailable via other means was brought out, exploring the inter-relation of the body and the garment. The making process was an iterative, reflexive process based on the embodied knowledge methodologies used by Dowdell, Woodyard, and Tiramani. Once the reconstruction was created, I was able to go a step farther and have a participant wear it, in order to learn about it from the perspective of a mobile body. The embodied nature of both of these processes (making and wearing) enabled me to examine this garment from both the maker's and the wearer's perspective, ultimately allowing me to deepen my understanding of this particular garment.

The making process, though with significant limitations, furthered an understanding of this rare garment and the craftsmanship required to make it. Reconstruction projects must always grapple with numerous shortcomings, including, in this case, available information on the original artifact, such as the fact that I had only partial access to the garment, including being unable to touch it or see the interior. Other limitations include the use of twenty-first-century materials and the impact of sewing skills not contemporary to the original garment. The pourpoint-making process was made possible through a pattern taken by museum conservator

Marie Schoefer, and, while the pattern proved itself to be mostly internally consistent, the ways in which it diverges from the original garment remain mainly unknown. The choice of materials introduced a level of interpretation into the process, as it was not possible to procure exact matches, particularly with the original gold, silk, and linen lampas fabric of the original. Instead, my reconstruction was done in a plain weave, unbleached, 200 g/sm linen. Choosing materials that would best approximate those found in the original was a challenge that could not be met perfectly. The making process was also limited by my skills as an early-career professional needleworker of today. Though my understanding of garment construction and hand sewing allowed me to create a reconstruction pourpoint, my understanding of the process was impacted by my skill set, the information available to me, and the materials used.

The strengths and limitations of my pourpoint reconstruction can be viewed within the framework of Ingold's two definitions of "telling," the first viewed as discerning and the second as communicating or telling a story. The making process was a continual practice of discerning: discerning the impact of my actions, discerning what was done on the original based on my data, and discerning how my construction choices compared to the original. The making process was communicated through the resulting reconstruction pourpoint. The ways in which the reconstruction replicates and differs from the original artifact tell of the making process and can suggest further avenues for research, for example the armseye seam, where my treatment of this part of the garment differed visibly from the original, suggesting further research is needed to better understand this area of the garment. These divergences are part of the reflexive research process, where I continually attempted to discern the correct construction techniques based on my data on the original garment, which is communicated or told through the physical characteristics of the reconstruction pourpoint.

The making process revealed an interplay between aesthetic and practical concerns. Care was taken to use the fabric judiciously for maximum visual impact: main pattern pieces were cut in larger pieces and with motif placement and the directional nature of the original fabric in mind, while piecing occurred in the sides and sleeves. The importance of different aspects of the garment could be weighed based on the amount of time they took to be produced, relative to other parts of the garment. This suggested that the buttons and buttonholes were of importance to the garment's design, as it took significant time to produce them. The cut of the *grande assiette*

sleeves was a point of significant interest, and through the making process, it became apparent that the seven pieces composing the upper sleeve were essentially a collection of rectangles and triangles. These shapes are economical to cut out of fabric, but in this case still able to conform to the curves of the upper arm and torso. Hand-sewing a reconstruction pourpoint enabled a deeper, though imperfect, consideration of this rare garment as an artifact resulting from the bodily knowledge of its original maker(s).

Made possible by the reconstruction pourpoint, the wearing process sought to address what is normally left uninvestigated in historic dress research: the impact of the garment on the body of a mobile wearer. Though significantly limited by the inaccuracies of the reconstruction, the lack of a full, historically-accurate ensemble, and the body morphology of my participant as well as his perspective as a twenty-first-century garment wearer, the research still enabled significant findings. These findings related to the overall mobility and comfort of the reconstruction pourpoint, including posture, thermal comfort, the impact of the hose and the buttons, and the broad mobility afforded to the arms. An additional component of this portion of the research are the use of experimental, body-centred garment construction theories that attempt to deepen our understanding of how the cut and grain orientation of the *grande assiette* sleeves function to allow the wide range of motion captured in the wear process. Taken together, the research is able to explore, with limitations, how the body and the pourpoint reconstruction may have interacted and illuminate some of the strategies the original maker(s) may have used to accommodate the mobile body.

The reconstruction pourpoint is an imperfect stand-in for the original garment and the choice of wearer introduced another layer of interpretation, as it is impossible to know how close in body morphology he is to the pourpoint's original owner. In addition, it was beyond the scope of this project to research and recreate a full ensemble. As such, the participant wore the pourpoint tied into a pair of non-historically accurate hose. The general effect of anchoring the pourpoint to the lower body was captured, but it cannot be seen to replicate a period-appropriate ensemble. Finally, this research is grounded in one garment and one participant's subjective experience of that garment's comfort and mobility. While the limitations of the reconstruction pourpoint and its associated hose were numerous, the wearing of the reconstruction pourpoint

ensemble provided several findings that address a gap normally unavoidable in the study of fragile museum artifacts.

The wearing process is grounded in the participant's subjective experience and the findings are not generalizable outside of the context of this research. No quantitative measures of mobility or comfort were included, instead the participant was given the ability to choose his activities in a familiar environment, in order to facilitate comparisons with his experience with his regular clothes and encourage a context-sensitive understanding of this garment. The mobility test was designed to test basic movements that could be used to give meaning to the participant's experiences in the wear periods. Finally, the semi-structured interview was intended to draw out more information about the participant's perceptions of his experience. The results of the wearing process cannot thus be compared or generalized. This portion of the research was intended to be exploratory and sensitive to the contextual nature of mobility and comfort in clothing.

The participant's experience in the wear periods, the mobility trials and the semi-structured interview raised several issues that hint at the context-sensitive nature of the wear experience. Drawn from the participant's observations, the pourpoint ensemble (as the pourpoint was worn while anchored to a pair of non-historically accurate hose), was reported to encourage a normative, upright posture on the participant. Thermal comfort was a major finding identified by the participant, indicating that heat retention may have been an important characteristic of this garment. The large, protruding buttons influenced the comfort level of the participant, and also his experience of dressing and undressing, suggesting that these necessary activities could be conceptualized as part of the overall comfort of a garment. The anchoring of the hose to the pourpoint had a significant role in the pourpoint reconstruction's behaviour with the body, particularly in more extreme postures such as squatting, but also in other, less extreme positions. The *grande assiette* sleeves offered a relatively large range of motion despite their articulated and delineated cut. Overall, the participant did not report major discomfort or restriction in the garment, comparing it to modern garments such as sweaters that are typically able to stretch or otherwise accommodate the moving body. The wear component of the research, intended to test the impact of the pourpoint-hose ensemble in an exploratory, contextually sensitive way, indicates that overall the pourpoint ensemble gave good mobility and that comfort was

experienced in a more holistic way that includes bodily sensation, such as physical restriction or thermal retention, as well as associated activities essential to wearing clothing, such as dressing and undressing. Taking into account its numerous limitations, this portion of the research suggests that comfort and mobility are highly inter-related topics, in the case of the reconstruction pourpoint ensemble, that present numerous opportunities for future research.

A key point of interest in the cut of the pourpoint was the *grande assiette* sleeves, which were subject to further analysis, including experimental approaches, in an attempt to develop a better understanding of how these sleeves permitted the wide range of mobility demonstrated in the wearing process. Based on the wearing process, it appears that the high cut of the sleeves greatly contributed to range of motion by adding extra fabric into the armpit area that could accommodate a raised arm. The grain of the fabric – a critical variable to manage in garment cut and construction – was placed in a direction that provides stability along the length of the arm, avoiding stretching and deformation of the fabric from bias extension. Though some bias-cut related extensibility could have an impact on the wide range of motion provided by the sleeves, the impact of placing the rigid armseye seam towards the centre of the body (where less dimensional change occurs during movement) likely also contributed to the mobility afforded to the wearer in this area. The similarity of the form of the *grande assiette* sleeves to Langer’s lines, which indicate the anisotropic extensibility of human skin in this area, is intriguing but requires further research to understand fully.¹⁵² Numerous factors contributed to the mobility afforded to the participant’s arms during the wear periods, which can be partially explained by examining the cut of the pourpoint using experimental garment design methods that place the mobile body at the centre of the research.

Taken together, the results of the making and wearing processes provided an opportunity to consider this particular garment more deeply, as both maker-garment and wearer-garment interactions were sources of knowledge. Examining both types of interactions led to several key findings. The sleeves of the pourpoint appeared to be dually concerned with judiciously using fabric and accommodating a mobile body (known through the making process) and able to offer a significant range of motion while maintaining an articulated, body-delineating fit (known

¹⁵² Lindqvist, “On the Relationship between the Shear Forces in Human Skin and the Grain Direction of Woven Fabric,” 109.

through the wearing process). Embodied in the *grande assiette* sleeves are a consideration of the needs of the wearer's body balanced with the practical priorities of the maker (in particular, a judicious use of materials). Through a reconstruction of the pourpoint of Charles de Blois, a methodology based on making and wearing as embodied sources of knowledge was presented, and some findings from one method were brought together to inform findings from the other method. Though not all aspects of the making and wearing processes could be brought together, there exists many opportunities for future research that could further develop and integrate an understanding of these inter-related processes. Through the combined, embodied processes of making and wearing, a fuller understanding of the pourpoint of Charles de Blois as a garment made by and for a mobile body becomes possible, and whose limitations, though numerous, may also present interesting avenues for future research.

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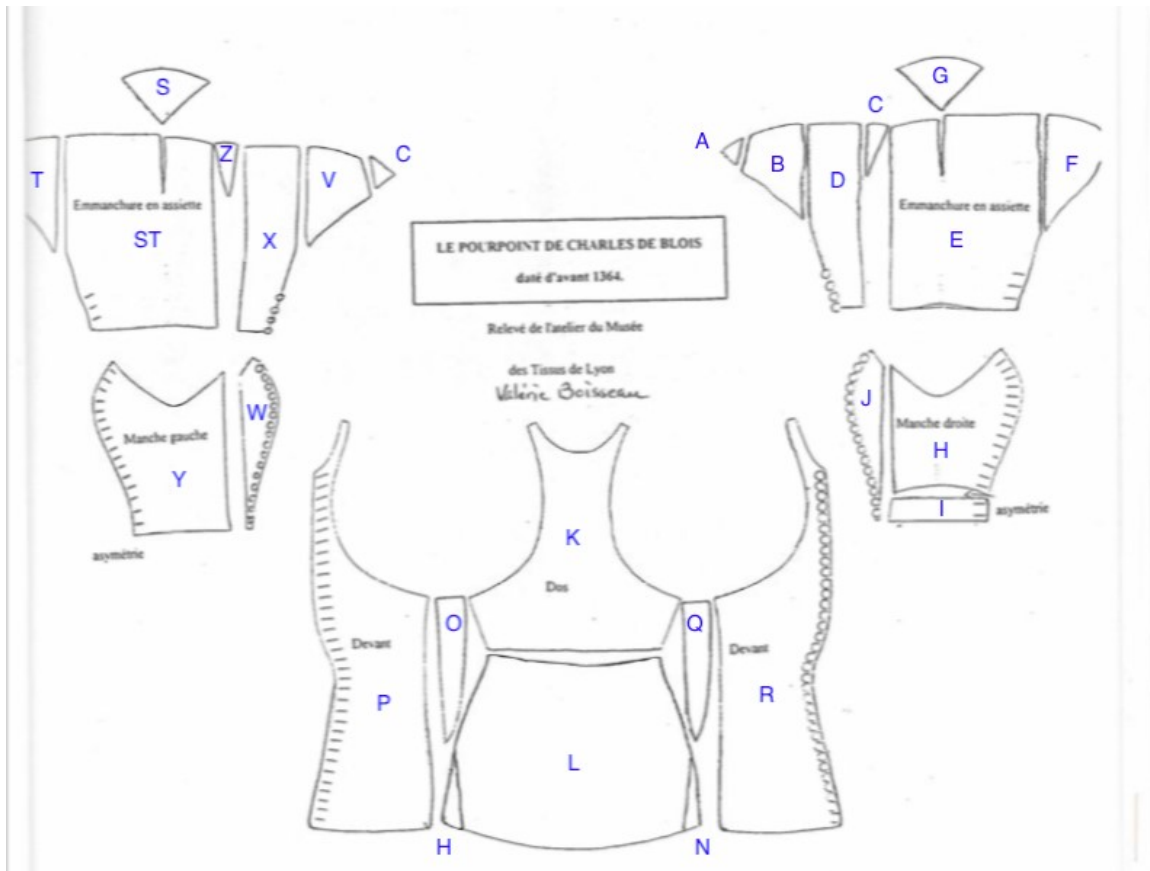
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Appendix 1: Pourpoint Front Detail



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Appendix 2: Pattern Flat Layout, after Harmand (1929)



Note that this diagram does not use proper left and right. Piece W has a small area of piecing at base of cuff not noted on this pattern.

Appendix 3: Mobility Test Procedure

STUDY: CLOTHING THE MEDIEVAL BODY: A RECONSTRUCTION OF THE POURPOINT OF CHARLES DE BLOIS

Introduction: This short mobility test is designed to help understand how the pourpoint reconstruction impacts specific body movements. Combined with data from your experience wearing the garment in everyday settings, this mobility test may help develop a deeper understanding of how the pourpoint may have originally felt and moved. Due to the COVID-19 crisis, all of these activities will occur remotely via video conference call, which will be recorded.

Process: Please complete these movements twice: once in comfortable workout clothes, followed by once in the pourpoint reconstruction. If you experience discomfort at any time, stop the exercise and inform the researcher.

1. From a standing position, reach your arms towards the ceiling as far as they will go
2. From a standing position, reach down and try to touch your toes
3. From a standing position, with your hands on the back of a chair or other steady object, raise one of your legs out behind you and swing it out to your side, similar to the movement required to mount a horse.
4. From a standing position, sit down on a chair
5. From a standing position, squat down onto your ankles
6. Perform the following movements: (see next page)



Elbow Flexion



Shoulder Flexion



Shoulder Extension



Shoulder Abduction



Shoulder Horizontal Flexion



Shoulder Horizontal Extension



Hip Flexion



Hip Abduction



Knee Flexion

Adapted from P.S Adams and W.M. Keyserling, 1993.

Appendix 4: Semi-Structured Interview Script

General questions:

1. How does the garment ensemble feel when:
 - a. You are standing still
 - b. You are sitting
2. How did you find dressing in this garment ensemble?
 - a. Tell me about the first time you dressed in the full ensemble
 - b. Tell me about the most recent time.
 - i. Did it get easier? Did you figure out any strategies? What was the most difficult or time-consuming part?
3. How did you find undressing?

Mobility:

1. Were you able to do all the motions you are normally able to do in the garment ensemble?
2. Were there any motions or movements you had difficulty performing in the garment ensemble?

Comfort:

1. On a scale of 1-10, 1 being highly uncomfortable and 10 being extremely comfortable, how would you rate the comfort of this garment ensemble?
 - a. Can you explain your scale? What is a 1? What is a 10?
2. Can you explain your rating?
 - a. Most uncomfortable parts?
 - b. Most comfortable parts/parts that made no particular feeling?