University of Alberta

Five Building Blocks: A Study of Madeleine Vionnet's Construction Techniques Explained to the Novice Through the Exploration of Five Patterns by Betty Kirke

by

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ABSTRACT

The aim of this research was to study French fashion designer Madeleine Vionnet's innovative garment construction techniques through dress patterns generated by Betty Kirke. Kirke, an American entrepreneur and costume conservator, conducted extensive artifact-based research, focusing on pattern design and engineering, as well as on Vionnet's life and times. Vionnet used the structural properties of the fabric as a foundation for her bias-cut creations rather than relying on aesthetic considerations alone. I use this case study to break down the process for a novice learner; I have reproduced five key patterns created by Kirke and suggested by her as the cornerstone of Vionnet's work. Using reflexive methodology, I describe the draping procedure step-by-step, and identify technical issues novices may have difficulty with. Through my struggle with the complicated draping process, my deficiency of technical knowledge, and my modern fashion bias, I come to a greater understanding of both women.

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INTRODUCTION

My Background

Before embarking on this master's degree, I worked as an Intern Architect for seven years. I was always interested in the construction process and putting things together. However, working in the architecture industry, I felt far too removed from the actual building process. I wanted to be able to feel the materials in my hands and actually connect them together to get the final product. In order to satisfy this desire, I learned how to sew so that I can experience the construction process more readily with cloth and a sewing machine. The more I sewed the more I wanted to learn about fabric structure and how it affects the design and construction of clothing. In trying to learn more about this aspect of sewing, I stumbled upon Madeleine Vionnet and admired her method of integrating garment design with the actual construction process. Consequently, when I decided to enter this master's program I immediately wanted to focus on Vionnet and learn more about her methods. It was in proposing this subject to Dr. Anne Bissonnette that I was introduced to Betty Kirke's work. Kirke studied Vionnet's work in a way that is unique from other historians. She not only looked at Vionnet's life and times, but also analyzed the designer's garments in terms of the geometry and structure of their patterns. Furthermore, she tied these in with the basic principles of fabric structure and how it affects the overall design. Studying Vionnet through Kirke's eyes was therefore a suitable path for me to take. While doing my coursework, I completed an independent study that

involved reproducing five key patterns created by Kirke in her book, and suggested by her as the cornerstone of Vionnet's work. Having stumbled upon some questions and new discoveries while doing the independent study, my advisor and I decided to use it as the basis for a larger and more in-depth project, the results of which are presented in this research paper.

The Research

The aim of this research is to study French fashion designer Vionnet's garment construction techniques through dress patterns generated by Kirke, and to subsequently break down the process for a novice learner.[1] As previously discussed, Kirke, an American entrepreneur and costume conservator, conducted extensive artifact-based research with a perspective unique from most dress historians as she focused on pattern design and engineering as well as on the designer's life and times. Vionnet, unlike her peers, used the structural properties of the fabric as a foundation for her creations rather than relying on aesthetic considerations alone. These singular women have pushed the boundaries of knowledge in their fields and changed the design and study of fashion in their own way. Their work is complicated, atypical, and requires advanced knowledge to be understood and internalized. While individuals with years of experience in garment construction and pattern design may grasp the depth of Vionnet's work through an industry veteran like Kirke, a novice is often ill equipped to do so. In

[1] The skill sets needed to create and understand these garments are usually quite high. As a result, I consider a novice to be a person without a formal garment construction education or with only basic knowledge in this field.

an effort to deconstruct a multi-faceted and difficult knowledge base, I will attempt to break it down into smaller components. Taking into consideration how a novice may learn, I will attempt to capture the challenges they may experience in their quest to master an expert's knowledge.

To come to a greater understanding of both women, I will reproduce five key patterns created by Kirke in her book, and suggested by her as the cornerstone of Vionnet's work, as the basis for case studies. I will then attempt to identify technical issues that novices may struggle with and complete the journey with discussions around possible solutions. During a conversation with Kirke in the winter of 2010, she identified five key patterns from her book that she considers the most important for a novice to address.[2] As will be discussed in the following section, Kirke demonstrated in her research that one must undergo a hands-on investigation in order to fully understand Vionnet's work. The five key patterns she outlined are: Pattern 1, Pattern 3, Pattern 14, Pattern 15 and Pattern 23.[3] The general premise of this research project is to reconstruct some of the patterns at half-scale. Instead of simply tracing the patterns, cutting them out, and then putting them together, the process began, as Vionnet would have tackled it - by

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[2] Betty Kirke, interview by author, phone conversation, January 29, 2010.

[3] During the conversation, one of the patterns Kirke recommended was the circular skirt that she discussed in her 1989 article for *Threads* magazine. However, as the article preceded the book, this pattern does not have an assigned number. The only clue to determine which one it might be is a sentence describing it as a "circular skirt of two quarter circles, for front and back." Betty Kirke, "A Dressmaker Extraordinaire," *Threads Magazine* 1989, 71. Through a discussion with Dr. Anne Bissonnette, it has been determined that Pattern 10 and Pattern 14 come closest to this description. Although Pattern 10 and 14 appear different at a glance, they share basic concepts. Pattern 14 was specifically chosen for reproduction during the independent study in order to understand the challenges of assembling a warp or weft grain to a piece cut on the bias. Pattern 12 was also substituted for Pattern 1 in the independent study. Pattern 1, however, was attempted in this research project as Kirke recommended.

draping. Therefore, with clues from Kirke's book, and from the Bunka Fashion College's book based on Kirke's work, uncut pieces of fabric were slashed and pinned to obtain the shape of the garments.[4]

The process of reconstructing the five patterns will inherently be complicated as it involves layers of different influences. These influences will be derived from an "assemblage" of material or non-material sources from different time periods. Experiential praxis is therefore compounded by temporal realities. For instance, Kirke's book from the 1990's and its Japanese accompaniment from Bunka from the 2000's will be used with Pepin's book from the 1940's.[5] Furthermore, the reconstruction of the pieces is interpreted by my own twenty-first century skills that are shaped by advice from Bissonnette whose formal garment construction education is rooted in the late 1980's followed by her continued involvement with Kirke since 1992. Finally, the materials used, such as the availability and type of fabric, and the shape of the dress and pant forms, impact the outcome.

Before embarking on the hands-on component of this project, one must first look at Vionnet's life and times in order to understand the significance of her work. Furthermore, as Kirke provides groundbreaking perspective on Vionnet's work, it is important to look at the background and evolution behind her research. In the following section, I will explore how both her background as seamstress

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[4] As fashion students expressed difficulty understanding Kirke's work, Bunka obtained permission from Kirke to dwell on technical issues not addressed in her book. While technical line drawings and pictures are present, Bunka's book is in Japanese and has not yet been translated.

[5] Pepin's book is closer to the period of operation of Vionnet's fashion house and Kirke's formal training.

and designer as well as time period in which Vionnet worked influenced her. I will likewise explore the influences behind Kirke's work.

LITERATURE REVIEW

Vionnet actively worked as head of her couture house from 1912 to 1939.[6] During the First World War, women were developing a taste for more simple and functional clothing to wear when they returned home from working in hospitals and factories[7]. Other developments, such as jazz, music and sports, also resulted in women becoming increasingly more active and therefore more interested in less physically restrictive clothing.[8] Motion was therefore a central theme as the fashion silhouette evolved from straight lines with no waist definition in the 1920s to a more accentuated female figure in the 1930s.[9] Although the bias technique was already being used in fashion to create details such as flounces, edgings and pleats, Vionnet was often credited with inventing it.[10] This was largely due to the innovative ways in which she used it throughout the entire garment to express an un-corseted and natural female body in motion.[11]

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[6] Betty Kirke, *Madeleine Vionnet* (San Francisco: Chronicle Books LLC, 1998), 27, 226; Pamela Golbin, "Madeleine Vionnet Fashion Purist," in *Madeleine Vionnet*, ed. Pamela Golbin (New York: Rizzoli International Publications, Inc., 2009), 29, 30. Vionnet closed her business in 1914 due to the onset of war. She reopened it again in 1918. Kirke, *Madeleine Vionnet*, 37, 114.

[7] Mary Louise Roberts, "Samson and Delilah Revisited: The Politics of Women's Fashion in the 1920s France," *The American Historical Review* 98, no. 3 (1993): 667.

[8] Kirke, *Madeleine Vionnet*, 38.

[9] Phyllis G. Tortora and Keith Eubank, *Survey of Historic Costume*, 5th ed. (New York: Fairchild Books, 2010), 469.

[10] Kirke, *Madeleine Vionnet*, 58; Nancy O. Bryant, "Insights into the Innovative Cut of Madeleine Vionnet," *Dress* 12 (1986): 73, 74.

[11] Kirke, *Madeleine Vionnet*, 35-36, 58.

Coming of Age

"Her genius was slow to surface . . . It had to be nurtured by experience in order to ensure its ripening at the appropriate time."[12] Vionnet's design process is characterized by a cerebral approach that employs a deep understanding of fabric structure and garment construction techniques. Her focus on the capabilities of the medium of cloth, rather than on aesthetic considerations alone, set her apart from her peers. This approach was derived from her extensive background as a seamstress that began when she was only eleven.[13] It was at this time that she left school to apprentice at a seamstress' shop.[14] Although the hours were long and the working conditions poor, Vionnet excelled at her tasks exclaiming, "Madame Bourgeuil and I once had to make matching blouses for twins, she made one and I made the other. They were ready at the same time, and mine was just as good as hers."[15] In her early twenties, she moved to London and worked for Kate Reilly who copied Paris couture originals for her clients.[16] Vionnet was hired to lead the atelier of seamstresses that made these copies.[17] From this experience, Demornex writes that Vionnet also "[learned] the techniques of the English tailors."[18]

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[12] Kirke, *Madeleine Vionnet*, 28.

[13] Ibid. 29; Delphine Saurat, "Chronology," in *Madeleine Vionnet*, ed. Pamela Golbin (New York: Rizzoli International Publications, Inc., 2009), 292.

[14] Kirke, *Madeleine Vionnet*, 29; Saurat, 292; Jacqueline Demornex, *Madeleine Vionnet* (London: Thames and Hudson, 1991), 21.

[15] Kirke, *Madeleine Vionnet*, 30; Demornex, 21.

[16] Kirke, *Madeleine Vionnet*, 30; Pamela Golbin, "Madeleine Vionnet Fashion Purist," in *Madeleine Vionnet*, ed. Pamela Golbin (New York: Rizzoli International Publications, Inc., 2009), 26; Saurat, 292; Demornex, 23.

[17] Kirke, *Madeleine Vionnet*, 30; Demornex, 23.

[18] Demornex, 23.

In 1901, in her mid-twenties, Vionnet relocated to Paris and worked for Callot Sœurs.[19] Callot Sœurs was a couture house founded in 1895, whose designs Vionnet had come to know and admire through her work at the Reilly copy house in London.[20] She landed the role of *première*, or Head Seamstress, for Madame Gerber, one of the sisters who owned the House.[21] According to Golbin, Vionnet's role as première was vital as it was her "responsibility to interpret Mme Gerber's ideas technically - to transpose them so the creative concept would become a reality."[22] Kirke elaborates that Vionnet was also encouraged to "put the form of the woman at the center of her art," and it was here that she learned to integrate the design of a garment with the body of the wearer.[23] Furthermore, she claims that it was at Callot Sœurs that Vionnet was exposed to "an important stylistic and technical innovation."[24] Madame Gerber discovered that the bodice of the kimono had a drop shoulder that can be extended to cover the arms and become the sleeve.[25] Referring to her time at Callot Sœurs, Vionnet spoke of having made the first "dress that had the sleeve and front and back bodice parts all in one piece."[26]

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[19] Kirke, *Madeleine Vionnet*, 31; Golbin, 26; Saurat, 292.

[20] Kirke, *Madeleine Vionnet*, 31.

[21] Ibid; Saurat, 292.

[22] Golbin, 26.

[23] Kirke, *Madeleine Vionnet*, 32.

[24] Ibid. 33.

[25] Ibid. 32-33.

[26] Ibid. 33.

This would have an influence on the way Vionnet would design her patterns throughout her career.

In 1906, in her early thirties, Vionnet left Callot Sœurs to work for the House of Doucet as a designer and was given the mandate to rejuvenate it.[27] The dancer, Isadora Duncan, who performed corset-less, in a tunic, in bare legs and sandals, inspired Vionnet.[28] Through Duncan's more natural way of dancing, Vionnet found the inspiration for her first fashion collection.[29] She came up with garments that could be worn without a corset and accentuated the body's natural form.[30] This was a pivotal point in her career although the staff felt these designs were too "risqué" and often refused to present them to clients.[31]

Freedom to Explore: Vionnet On Her Own

In 1912, in her mid-thirties, Vionnet left the House of Doucet and opened her own business where she was now free to explore her own ideas.[32] As mentioned, Vionnet is often credited with "inventing" the bias cut even if the technique was already employed for elements such as dress trimmings.[33] Her days as an eleven-year-old seamstress and première to Madame Gerber, as well as her

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[27] Ibid; Golbin, 29; Demornex, 27; Saurat, 292.

[28] Rebecca Arnold, "Vionnet & Classicism," in *Fashion Critical and Primary Sources*, ed. Peter McNeil (Oxford: Berg Publishers, 2009), 232; Demornex, 27.

[29] Kirke, *Madeleine Vionnet*, 35; Demornex, 27.

[30] Kirke, *Madeleine Vionnet*, 35; Demornex, 27.

[31] Demornex, 27.

[32] Kirke, *Madeleine Vionnet*, 36; Golbin, 29; Saurat, 293; Demornex, 28.

[33] Ibid. 34; Kirke, *Madeleine Vionnet*, 38; Bryant, 73,74.

fascination with Isadora Duncan, all contributed to the development of her structural innovations, particularly in exploring the bias beyond its traditional use. Vionnet's extensive experience in various aspects of the industry contributed to the depth and complexity of her garments, and may be one reason why novices struggle with her work. To understand the clothes, one must first understand the cloth.

Bias is an inherent part of woven fabrics that generally have "two or more sets of yarns that are interlaced at right angles to each other."[34] The yarns that run lengthwise in a woven bolt of fabric are known as warp and the crosswise yarns as weft.[35] True bias is the 45° angle on this warp-weft grid, and bias is all other angles within the 90° angle of the woven fabric.[36] Woven fabric is an anisotropic material, meaning that it has different strengths when pulled in different directions.[37] Generally, it will stretch very little when pulled directly on the warp or weft threads, but when pulled in the bias direction the warp and weft threads contract and expand.[38] The ability to contract and expand in this direction makes the fabric more extensible, therefore allowing the body underneath to move more freely. During Vionnet's time, her contemporaries still followed the general

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[34] Kathryn L. Hatch, *Textile Science* (St. Paul: West Publishing Company, 1993), 316.

[35] Ibid. 318.

[36] Ibid. For the sake of simplicity, the term bias will be used to generally refer to all directions of the cloth that do not intersect at a 90° angle.

[37] J.E. Gordon, *Structures or Why Things Don't Fall Down* (Cambridge: Da Capo Press, 1978), 251; Kirke, *Madeleine Vionnet*, 87.

[38] Gordon, 251-52.

convention of cutting pattern pieces along the warp threads.[39] Vionnet set herself apart by either cutting on the lengthwise grain but positioning the fabric on the bias, or cutting on the bias to draw advantage of its elasticity. Therefore, by addressing the properties of the bias, Vionnet not only revolutionized the way garments were made but how the natural female form could move freely in clothing.

Vionnet used unique draping methods, often referred to by historians as "three dimensional cutting," to test and develop her ideas.[40] In fashion schools today, draping begins by placing an uncut piece of fabric on a dress form, and manipulating it into the desirable shape.[41] Subsequently, the manipulated fabric is removed from the dress form and the resulting shape is traced onto paper, creating a pattern piece.[42] This process begins with the three-dimensional form in order to generate a shape that is translated into a two-dimensional representation. Contemporary practice still has a tendency to divide the body into front and back, following the practices of pattern makers, which is echoed in the way clothing is merchandised two-dimensionally on hangers. Vionnet's method was unique in that she draped her fabric on a half-scale wooden doll, which she placed on a piano

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[39] Golbin, 24; Bryant, 73.

[40] Nancy O. Bryant, "Facets of Madeleine Vionnet's Cut: The Manipulation of Grain, Slashing, and Insets," *Clothing and Textiles Research* 11, no. 28 (1993): 28.

[41] Hilde Jaffe and Nurie Relis, *Draping for Fashion Design* (New Jersey: Prentice Hall Career & Technology, 1993), 10-30.

[42] Ibid.

stool that she could rotate.[43] She worked this way so that she could see the figure in the round as she draped.[44]

Traditional pattern making is based on a geometrical plan that is generated using a human body's proportions and measurements.[45] It is a formulaic process where the basic steps and measurements needed to create a pattern do not change drastically.[46] Pattern pieces are drafted from the beginning to end on paper.[47] When the desired shape is achieved on paper, it is then transferred onto a test fabric that can be adjusted on the dress form or body for fit.[48] Flat pattern drafting operates in the opposite way to draping in that it begins with a two-dimensional shape that is later assembled into a three-dimensional form.

Draping and pattern drafting are still the main methods used for design and pattern generation in the garment industry today. As Vionnet draped in the round by rotating her wooden doll, the pattern shapes that resulted were dictated by the curves of the body itself, as front pieces extended to the back or became one with the sleeves. As a result, her pattern pieces were more complex and may be another reason that prevents a novice from initially understanding her work. However, her

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[43] Betty Kirke, "A Dressmaker Extraordinaire," *Threads Magazine* 1989, 68; Kirke, *Madeleine Vionnet*, 122-23; Nancy O. Bryant, "The Interrelationship between Decorative and Structural Design in Madeleine Vionnet's Work," *Costume* 25 (1991): 73.

[44] Kirke, "A Dressmaker Extraordinaire," 68; ———, *Madeleine Vionnet*, 122-23; Bryant, "Facets of Madeleine Vionnet's Cut: The Manipulation of Grain, Slashing, and Insets," 28.

[45] Kirke, *Madeleine Vionnet*, 28; Norah Waugh, *The Cut of Men's Clothes 1600-1900* (New York: Routledge, 1964), 130.

[46] Harriet Pepin, *Modern Pattern Design* (New York: Funk & Wagnalls Company, 1942), vii.

[47] Ibid. 7.

[48] Ibid.

method resulted in an integration of draping and pattern drafting that had unique outcomes. She was able to attain more innovative shapes and resolve nuances of the bias cut, that otherwise would not have been possible if initially done on the flat table, as cloth is generally subject to the effects of gravity. At the core of her work is the ability to draw from her in-depth knowledge of the field that began at a tender age, her understanding of fabric structure, and her exploration of dynamic three-dimensional draping techniques combined with pattern-making. Vionnet developed a unique structural approach by pushing draping in a new direction and combining it with known garment construction methods to create clothes differently, for a new woman.

The Bias Post-Vionnet

Vionnet closed her couture house in 1939, shortly before Germany declared war on France.[49] During the war, due to fabric restrictions, bias-cut garments fell into limited use, as they generally required more material.[50] The fashion aesthetic adopted a more tailored military-inspired look that consisted of shorter skirts and structured bodices with broad shoulders rather than the softer clingy fit of clothes cut on the bias.[51]

In 1947, Christian Dior introduced a new silhouette dubbed by the fashion press as the "New Look."[52] It consisted of full or narrow skirts with a small,

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[49] Kirke, *Madeleine Vionnet*, 226; Golbin, 30.

[50] Tortora and Eubank, 470.

[51] Ibid; Kirke, *Madeleine Vionnet*, 226.

[52] Tortora and Eubank, 495.

nipped in waistline, which required the use of corsetry and various undergarments that transformed women's bodies into a hyper-feminized form.[53] Design therefore moved away from draping more fluid garments that aimed to enhance an unhindered natural body; moved away from Vionnet's bias-cut garments that allowed for the expansion and contraction of the fabric to provide fit and allow motion.

In the mid to late 1970's, an appreciation was developing for fluid clothing that had an easier and more casual fit.[54] Consequently, there was a mainstream rediscovery and re-emergence of the bias-cut. Undergarments were often made seamless in order to achieve a more natural appearance under clinging fabrics.[55] Another factor that contributed to the return of the bias cut was the 1973-74 exhibition at the Metropolitan Museum of Art, *The Tens, Twenties, Thirties - Inventive Clothes: 1909-1939*.[56] Vionnet's garments were one of the main attractions. Kirke described how market forces also played a role, stating, "Whenever the silhouette was soft, the market would return to take a look at Vionnet's work."[57] In fact, it was at this exhibition that Kirke noticed her first Vionnet dress, an event that eventually lead to decades of extensive research on the designer.[58]

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[53] Ibid. 507.

[54] Ibid. 562.

[55] Ibid.

[56] Kirke, *Madeleine Vionnet*, 16.

[57] Ibid. 16, 228.

[58] Ibid. 228.

Kirke was working as a costume restorer at the Metropolitan Museum of Art at the time of the exhibition.[59] Like others who have seen Vionnet's work in the exhibition, she was intrigued by the work on display.[60] As a retired designer, she looked at it from a different angle.[61] Vionnet had resolved many aspects of garment construction that she had not been able to solve in her own career.[62] To understand how, she did what made sense to her, that is, make patterns of surviving garments.[63] She travelled to England and France, even meeting Vionnet in person and, as instructed by the designer, trying on original garments that had been worn by the small-framed Vionnet.[64] Although doubtful at first whether the clothes would fit her, the tall and statuesque Kirke was amazed to discover that she was able to comfortably wear them thanks to the bias' elasticity.[65] Kirke was therefore able to handle and observe the actual objects of her research, and experience how the clothes moved with the body. Supported by her extensive experience in the fashion industry and knowledge of garment construction, she was able to question what she saw and discover a way to make sense of Vionnet's work through the exploration of surviving garments.

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[59] Ibid. 16; ———, "A Dressmaker Extraordinaire," 69; Betty Kirke, "About Betty," http://www.bettykirke.com/about.htm.

[60] Kirke, *Madeleine Vionnet*, 16; ———, "A Dressmaker Extraordinaire," 69; ———, "About Betty."

[61] ———, "A Dressmaker Extraordinaire," 69.

[62] Ibid.

[63] Ibid.

[64] Ibid.

[65] Ibid.

Artifact-Based Exploration: The Kirke Patterns

Kirke knew that the only way she could attempt to unravel the mysteries of Vionnet's intricate cuts was to take measurements of actual garments and reproduce their patterns.[66] By manipulating and exploring those reproduced patterns and describing how they came together, she started on a journey of discovery.[67] Through hands-on artifact observation and research that continued for twenty years, she was able to identify some general themes.[68] She summarized her research using geometric shapes she observed from the patterns she took and summarized them into the categories of rectangles, quadrants and triangles. Each geometric shape makes a unique contribution to the overall design of the garment and is a leitmotif in Vionnet's body of work.

Under the category of rectangles, Kirke describes an off-white silk crêpe dress where Vionnet duplicated two rectangular pattern pieces to generate four pattern pieces.[69] These pieces were cut mostly on the lengthwise grain but hung on the bias to create the garment.[70] The front pattern piece was duplicated to cover the left and right and the same was done in the back.[71] They were sewn together at the centre front, centre back, and sides. No darts or other traditional techniques

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[66] ———, *Madeleine Vionnet*, 233; ———, "A Dressmaker Extraordinaire," 69.

[67] ———, *Madeleine Vionnet*, 233; ———, "A Dressmaker Extraordinaire," 69.

[68] ———, "About Betty."

[69] ———, *Madeleine Vionnet*, 54-55.

[70] Ibid.

[71] Ibid. 54.

were used to achieve shaping. The dress falls elegantly on the body, and does not have a square or boxy shape that one would otherwise expect out of a dress made from rectangular pieces. By simply rotating the pattern pieces to have them fall on the bias, Vionnet exploited the fabric's ability to cling by contracting and expanding to the contours of the body. She also accomplished shaping for the bust solely by twisting the fabric at the shoulders to provide volume for the breasts. Therefore, she achieved her goals of enabling motion and glorifying the natural body through fabric manipulation and arrangement of the geometrical shape.

The quarter circle, or quadrant, is another leitmotif in Vionnet's work that is brought to the forefront through Kirke's artifactual research. It appears in either quarter, semi or full circle pieces.[72] The right angles that form the two sides of a quadrant are usually placed on the warp and weft directions. However, when the quadrant is hung vertically from the point where the two right angles meet, the cloth in between will be oriented on the bias, causing it to stretch.[73] As the curved section of the quadrant between the right angles is often used as the hemline, the bottom of the skirt will appear distorted, ruining the overall appearance of the garment.[74] In an article for *Threads* magazine dated from 1989, Kirke explained that this is a frequently cited problem of circular-cut garments.[75] She observed that the ones constructed by Vionnet have not suffered the same consequences.[76]

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[72] Ibid. 80.

[73] Ibid. 87.

[74] Ibid.

[75] ———, "A Dressmaker Extraordinaire," 71.

[76] Ibid.

Through draping, Vionnet was able to place the fabric according to the stretch ability of the cloth.[77] She further tempered this problem by hanging weights along the curved section of the quadrant and letting it distort before use.[78] This pre-stretches the cloth and stabilizes it, and as a result, will cause fewer changes after assembly and continued wear. As Kirke demonstrates, although Vionnet did not discover this pattern shape, she developed unique solutions to address its particularities.

In the same 1989 article referenced above, drawing from her study of actual garments, Kirke describes a hands-on way to achieve the effect of Vionnet's circular-cut skirts.[79] As *Threads* is aimed at an audience of sewers, her explanation may be geared towards a more experienced reader, leaving a novice who has little knowledge of fabric structure and draping concepts to look for a more basic description. She states, "At the true bias, I stretch the fabric horizontally and force some of the fabric into the area of less stretch ability. Theoretically, each ripple will then have the same number of yarns, the same weight, and the same degree of stretching. The even hemline should persist."[80] She seems to imply that by simply shifting the fabric one can affect its density, weight and elasticity, but does not break the concept down further. It is evident in her statement how experts can take

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[77] Ibid.

[78] ———, *Madeleine Vionnet*, 87.

[79] ———, "A Dressmaker Extraordinaire," 71.

[80] Ibid.

for granted the basic body of knowledge required to understand a more advanced concept.

According to Kirke, the act of slashing, spreading and inserting a gusset changes the fabric from a two-dimensional surface to a three-dimensional space.[81] The wider angles of the gusset force the slashed fabric to open and drop, transforming the plane into a type of "virtual sphere" that can accommodate body contours.[82] In one of her dresses, Vionnet used triangular gussets to provide fit but also to create new components of the garment such as cowl necklines.[83] By inverting the triangular gusset so that the apex is at the waistline, the widest part of the shape can generate more cloth to cover the upper torso and provide excess fabric at the front to create a cowl.[84] Therefore, through this geometric shape, Vionnet found a way to achieve both fit and stylistic elements, a method that became part of her overall approach throughout her career.

Exploring the significance of Vionnet's life and times, as well as the background behind Kirke's research, give us a greater understanding of how the construction process is closely integrated with both women's work. However, before beginning the hands-on component, I will first discuss the methodology that will help guide the draping and reproduction process.

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[81] _____, *Madeleine Vionnet*, 142. A gusset is defined as "a small fabric piece, often diamond-shaped or triangular, that is inserted into a slashed opening." Pamela Johnson, ed. *New Complete Guide to Sewing: Step-by-Step Techniques for Making Clothes and Home Accessories* (Montreal: The Reader's Digest Association (Canada) Ltd.,2002), 371.

[82] Kirke, *Madeleine Vionnet*, 142.

[83] Ibid. 153.

[84] Ibid. See Pattern 23 on referenced page.

METHODOLOGY

Pilot Study

As previously discussed, I completed an independent study that involved reproducing five key patterns created by Kirke in her book, and suggested by her as the cornerstone of Vionnet's work. Having stumbled upon some questions and new discoveries while doing the independent study, I decided to embark on a larger and more in-depth project. Consequently, the independent study acts as a pilot study where the basic idea of this research project stems from, and where the initial limitations can be tested.

During the pilot study, Kirke was more involved in the process, not only in offering her suggestions but also in discussing solutions. However, her health began to decline at the start of the actual project, and was not able to take an active part. Therefore, the pilot study was not only important in setting the initial aspects of the project, but also acted as a platform where Kirke was able to voice her opinions. It gave me a chance to understand Kirke's approach and practical mindset.

The pilot study gave me the initial seeds for this project. In the rest of this section, I will examine the methodology that guided the execution of this more in-depth study.

Reflexive Methodology

Reflexive methodology was used as a guide in this project. Reflexive methodology "[demands] for reflection in research in conjunction with

interpretation."[85] The unique aspect of this methodology is that there is an "awareness of the interpretive act."[86] As will be explained in more detail below, I recorded my thoughts by videotaping myself and talking out loud as I conducted a series of draping exercises. These were later transcribed and reread as part of the analysis. Thoughts and questions that arose from reading research material were recorded through written side comments and in a journal.

My Approach: Way of Seeing - Researcher as a Research Tool

This project used the participant observation approach, which is an ethnographic technique where the "self is instrument."[87] In this particular case, I was the only participant and the main focus of the project. My experience of draping as a novice was the object of study, and I did in essence gather "data" to record what I encountered.

According to Wolcott, writing ethnography can be approached in two ways. One approach is to treat it as a "way of looking" where the researcher takes a passive role and simply sits back and observes.[88] In this case, the researcher merely describes and records what he or she sees. As discussed, one of the goals of the project was to consciously record my experience of draping as a novice. Therefore, this method is unsuitable, as I have to actively engage in performing

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[85] Mats Alvesson and Kaj Sköldberg, *Reflexive Methodology* (London: Sage Publications, 2000), 238.

[86] Ibid.

[87] Harry F. Wolcott, *Ethnography* (Altamira Press: Walnut Creek, 1999), 43.

[88] Ibid. 44.

the exercises in order to gather the necessary information. A more appropriate approach, and one that this project used as guide, was to look at it as a "way of seeing."[89] In this case, the researcher's descriptions are accompanied by analysis and opinion. The researcher's "way of seeing" is defined as his or her unique viewpoint that is shaped by his or her background. It influenced the direction of the project, and made it unique from a direction another researcher with a different background might take.[90]

The Players - Layers of Influence

As previously discussed, the process of reconstruction is inherently complicated as it involves layers of different influences. Experiential praxis is compounded by temporal realities, and the various layers of influences were derived from an “assemblage” of material and non-material sources from different time periods.

The first layer of influence comes from the books I used to help me drape the pattern pieces. The main books that I used as references were Kirke’s 1998 book and its Japanese accompaniment from Bunka that was produced in the 2000’s. Furthermore, I used Pepin’s book on sewing from the 1940’s to get a sense of the concepts and language that may have influenced Kirke’s education in garment construction. All three of these books were written in their own time and for their own particular audience. For instance, Kirke’s 1998 book is an English

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[89] Ibid. 66.

[90] Alvesson and Sköldberg, 8.

translation of her original book that was first published in Japanese.[91] It was intended to be an art book that showcased her patterns in a stylized way. It was not intended to be extremely technical or instructional in the construction of the garments themselves. Instead, Bunka's Japanese accompaniment served to achieve that goal. It was produced as a way to instruct students from the Bunka Fashion College on how to put the patterns from Kirke's book together.[92] Pepin's book is also largely technical and was intended as a reference for women who sewed their own garments. By referring to these books, I interpreted the information they contain through the lens of my own background. However, the initial influences from when the books were written indirectly also played a role.

The next layer of influence comes from the people who offered advice and possible solutions during the reconstruction process. The reconstruction process primarily was interpreted by my own particular skill set, which developed from my background in architecture and the problem solving skills I have had to exercise in school and at work. From this experience, I was able to practice turning a two-dimensional representation of an idea into a three-dimensional form. Although I consider myself a novice in terms of my limited background in garment construction, the particular skill sets that I brought into the project gave me a unique advantage. Bissonnette also worked with me, providing advice and

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[91] Before the official English translation of Kirke's book was produced in 1998, Kirke included her own English translation with the original Japanese version. It was available for those who bought the Japanese version directly from her. After the official translation of Kirke's book was produced in 1998, it was reprinted twice. Each version contained the same content but had different covers.

[92] At the time this paper was written, no English translation was available for Bunka's book. According to Bissonnette's unpublished research, before creating the technical accompaniment in Japanese, Bunka received special permission from Kirke.

support when needed. Therefore, her insights, which stem from her own background as a dress historian, with formal garment construction training, created another layer of influence. As Kirke's friend and mentor since 1992, she could offer advice drawn from Kirke's knowledge, and provided a voice for her. Although Kirke could not participate beyond the pilot study, I was able to meet her in January 2010 during a symposium on Vionnet in Paris. During this time, I was able to converse and interact with her both on an intellectual and a personal level. Therefore, this experience indirectly affected some of the decisions I made as I recalled conversations with her.

The final layer of influence on the overall product would be the material I used, such as the type of fabric and body forms I selected. I used medium weight muslin, partly because of its availability in stores. At the time of the project, it was a choice between medium or heavy weight muslin, and the medium weight muslin felt as if it would have a better drape. In pictures of Vionnet at work, she appeared to use a half-scale articulated wooden mannequin. I did not have access to this type of form, so I used what is most available to me, a half-scale dress form with a 1940's structured silhouette.[93]

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[93] The Human Ecology Department made this dress form available to me. A 1940's silhouette is characterised by its square shoulders, pointed breasts, indented waistline, rounded hips, flattened stomach and buttocks. The dress form is stamped with the words, "HALF SCALE 16/BAUMAN/ Normal Model Form Inc./N.Y." As will be discussed in a later section, a child's pant-form was also used. The pant-form I used is stamped with the words, "3/Wolf Model Form/◆ Inc. ◆/ Englewood, N.J./MODEL 1993 3T," and the manufacturer's paper label glued to the chest with the words, "WOLFFORM Co./REGISTERED/PERFECT MODEL FORMS/FOR GARMENT M'F'R'S &/RETAILERS/WOLFORM/REG./P.O. BOX 510/ENGLEWOOD N. J. 07631/(201) 567-6556."

These layers of influence created a dialogue and shaped the actions I took to get to the final product.[94] The influences that shaped these women directly and indirectly affected how I interpreted the influence of my own skill sets.

Thingness: Objects of Study

Another unique aspect of this project is that it involved the study and creation of objects. More specifically, the aforementioned draping exercises involved five patterns from Kirke's book, and were suggested by her as core to understanding Vionnet's work. I used both Kirke's book and the Bunka Fashion College book, based on her work, as guides to reproduce these patterns through draping.[95]

It was decided that five was the appropriate number of pieces to use for the time allocated to complete the project. This follows the idea that less is more, and with a greater number of pieces involved "the strength of each case is reduced proportionately, the number of cases serving as a denominator that reduces the time that can be devoted to each one."[96] Furthermore, each of the five pieces was draped at half-scale to make the material more manageable.

Alvesson and Sköldberg writes that the "study of suitable (well-thought-out) excerpts from this reality can provide an important basis for a generation of knowledge that opens up rather than closes, and furnishes opportunities for

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[94] For a summary of these, see Appendix A.

[95] While I do not read Japanese, I will use the diagrams and photographs from Bunka's books as an aid.

[96] Wolcott, 88.

understanding rather than establishes 'truths.'"[97] This further supports the idea that evaluating a few representative pieces, rather than Kirke's entire repertoire of patterns, is enough to accomplish the goals of the project. However, one must keep in mind that the knowledge obtained from this exercise should serve to foster a better understanding of Kirke's work and does not intend to correct it.

Thingness: The Complexity of Interacting with Objects

According to Hodder, the study of material culture often involves the "interpretation of mute evidence."[98] Objects can easily be separated from their maker and therefore the thoughts and reasons behind their creation are lost. There is less chance of an interaction between the "spoken emic 'insider'" and the "etic 'outsider' perspectives." However, in this project, that bridge can be linked with the use of reflective methodology, as the researcher is simultaneously creating the object while actively reflecting and recording her thoughts. More specifically, the researcher as the "insider," the one creating the object, is interacting at the same time with the researcher as the "outsider," the one whose particular background as a novice will provide the analysis. This particular aspect of the project brings a unique complexity to the study of material culture.

The act of consciously reflecting while creating the object carries with it a certain assumption by the researcher that the object possesses more meaning

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[97] Alvesson and Sköldberg, 5.

[98] Ian Hodder, "The Interpretation of Documents and Material Culture," in *Collecting and Interpreting Qualitative Materials*, ed. Norman K. Denzin and Yvonna S. Lincoln (Thousand Oaks: Sage Publications, 2003), 155.

beyond its step-by-step construction. Hodder expresses this sentiment by stating, "The ideational component of material patterning is not opposed to but is integrated with its material functioning. It is possible therefore to infer both utilitarian and conceptual meaning from the patterning of material evidence."[99] Therefore, an added challenge for myself as the researcher was to extract the reasons and concepts while I constructed the garments. It is not enough to find out a better way to sew a seam, but to understand why the seam is there in the first place.

Another aspect that added further complications, to this project, were the various layers of interpretation that must be brought together into a "hermeneutical whole."[100] Hodder states, "In both texts and artefacts the problem is one of situating material culture within varying contexts while at the same time entering into a dialectic relationship between those contexts and the context of the analyst."[101] In this project, the original patterns were created by Kirke and are based on dresses created by Vionnet. When Kirke published her patterns, there is also the added interpretation of her publisher. Each interpretation was made in a different time and for a different purpose. I added another layer of interpretation by bringing in my perspective on the patterns as a novice.

As these patterns are the primary objects of study, one way to bring these varying layers of interpretation into a "hermeneutical whole" is to look at the

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[99] Ibid. 167.

[100] Ibid. 166.

[101] Ibid. 158.

main reason why Kirke created the patterns. Kirke states that taking patterns of Vionnet's dresses was her way of "probing the mystery of Vionnet's cuts," and by looking at how they were put together, she hoped to find the answer as to why they were so "complex and difficult."[102] Her words are echoed by Hodder who states, "The sequence of use can give insight into the thought processes of an individual, as when flint flakes that have been struck off a core in early prehistory are refitted by archaeologists today in order to . . . follow the decisions made by the original flint keeper in producing flakes and tools."[103] It was with this viewpoint in mind that I wished to synthesize the ideas gathered from this experience. By draping and putting the patterns together, I hoped to extract the thought processes of the two women who originated them, and pass on these lessons to another generation of designers and sewers, thereby creating another layer and enlarging the sphere of knowledge behind their work.

The notions discussed above can be seen as the complexity involved in interpretation. However, there is also complexity within the actual construction of the garments. As the draping exercises were being recorded on video, I had to remember to talk out loud and voice out any queries, comments and concerns. Hodder explains the benefits of talking out loud before transcribing words into text: "Once words are transformed into a written text, the gap between the 'author' and the 'reader' widens and the possibility of multiple interpretations

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[102] Betty Kirke, *Madeleine Vionnet*, 233.

[103] Hodder, 165.

increases. The text can 'say' many different things in different contexts."[104] Therefore, by recording my exact words as I created the objects, there is a higher degree of accuracy when I later returned to interpret and analyse the experience. Even though I myself am the creator, reader and author, ideas could still be misinterpreted and forgotten over time.

Nonetheless, after interacting with the object, I still had the challenge of transferring the spoken words into written text. This can be seen as yet another layer and challenge into orchestrating a "hermeneutical whole." Hodder explains that one way to tackle this stage is to keep in mind context, especially when different sets of data are being compared. Kirke divided her patterns into categories of geometric shapes. The reproduced patterns can be interpreted by comparing their similarities and differences with other patterns in the same category. This is one way of analysing the object within the context of its original creator. Another instance where context could be of significance was to analyse the object within the framework of Vionnet's time. For instance, during the independent study, darts were added to the bust area in Pattern 14 that were not present in the pattern provided in Kirke's book. One way to explain this is to put it within the context of haute couture, which is the type of garments Vionnet created. Its custom-made features define haute couture. Therefore, the absence of these darts may be due to the fact that the client for whom the dress was made had

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[104] Ibid, 157.

smaller breasts, thereby not requiring this fitting detail.[105] It is not necessarily a "forgotten" detail by the original creator.

As demonstrated, there are many layers that contribute to the complexity of this project. Interacting with the object of study involved simultaneously producing the object as well as reflecting and recording my thoughts, which were guided by my particular background as a novice. Furthermore, my thoughts and reflections must search for a deeper understanding of Kirke's and Vionnet's work and subsequently translate them into text, where other novice designers, sewers, and academics can understand and expand them. These ideas must also be interpreted within the context or time and place of its original creator.

The Act Of Doing: Operationalizing
Do the actions fit the goal?

In order to answer this question, Wolcott suggests to "work beginning to end, but think end to beginning."[106] This will help the researcher define what he or she wants to accomplish even before starting, and critically determine if the method proposed is appropriate for the intended purpose. The end goal of this project was to identify issues novices face that hinder them from understanding the body of knowledge on Madeleine Vionnet as explained in Kirke's book. Additionally, it is hoped that pragmatic concepts that can aid the novice in this understanding can be isolated and appropriately explained. I draped five pieces from Kirke's book, and recorded my experience of the process. As both researcher

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[105] Betty Kirke, interview by author, phone conversation, January 29, 2010.

[106] Wolcott, 45.

and novice, it can be assumed that the issues I encountered will be similar to issues other novices encounter when attempting the same exercise. The "data" obtained should therefore be what will be needed to satisfy the goals of the project. However, Wolcott warns that, "Tension is more likely to arise over what you eventually report and how you report it."[107] This, precisely, then was a challenge in this project, as researcher I had to find a way to explain the findings so that a novice will find it graspable and engaging, while also satisfying an academic audience.

The Hands-On Process and The Written Process

This project is divided into two portions: the hands-on process where data is gathered and the written portion where the information obtained is explained. The hands-on process can be seen in three stages: experiencing, enquiring and examining. In this project, my background and how that influences the project define the experiencing stage. The enquiring stage can be equated to the active reflection that I must engage in and record while completing the draping exercises. In the final stage of examining, I take what I have experienced in the draping exercises into further analysis.

During the experiencing stage, "it is sufficient to recognize and reveal our subjectivity as best we can, thus to maximize the potential of fieldwork as personal experience rather than to deny it."[108] My subjectivity naturally stems

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[107] Harry F. Wolcott, *The Art of Fieldwork* (Walnut Creek: Altamira Press, 2005), 195.

[108] Wolcott, *Ethnography*, 46.

from my background, which is a novice sewer with previous experience working in the architectural field. This perspective, however, can only be seen to enhance the project rather than hinder it. My skills as a novice sewer are precisely what are under study, and my architectural background gives me an advantage in construction and three-dimensional thinking. Nonetheless, this can be seen as a disadvantage as not all novices may have this particular training. However, it is best to acknowledge it from the start and observe what role it might have played in the process.

The enquiring stage sets the hands-on process apart from one where the researcher is a mere observer, by allowing me to ask questions while I perform the task at hand.[109] I freely made comments out loud while being recorded on video, and wrote down questions on the side. This was done without necessarily stopping to link or analyse thoughts together unless it occurred naturally. This was done in order to avoid "interrupting" the hands-on process.

The written portion can be seen to be in three stages as well: describing, analyzing and interpreting.[110] The analysis section of this research paper will discuss what took place during the hands-on exercises, and will be divided into two main parts. The first part can be likened to the describing stage, where I will describe what took place during the draping process step-by-step, including problems encountered and any other special characteristics. The second part will combine the analyzing and interpreting stages, and will involve a deeper

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[109] Ibid. 46-47.

[110] Ibid. 50-51.

investigation of what is described. In this section, I will give my thoughts and opinions as well as any solutions or themes that I discovered.

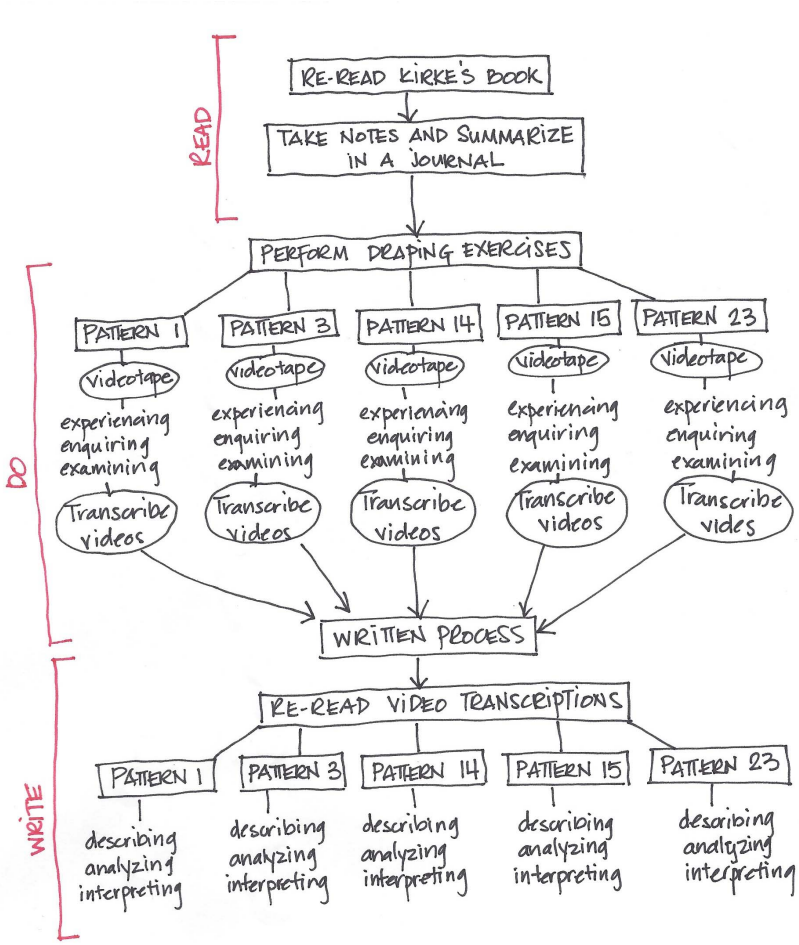

Diagram of the Hands-On and Written Process

Limitations

The main limitations in this project are related to three players - Kirke, the materials used, and my own skill sets. As previously discussed, Kirke was not able to participate in the actual study due to health reasons. Therefore, I was not able to receive her insights as I had in the pilot study. Bissonnette, who was

mentored by Kirke and has remained close friends with her, filled her role. Bissonnette provided insights shaped by her own background, while undoubtedly bringing in some of Kirke's influence. Bissonnette consequently played a larger role than she did in the pilot study, bringing in her own voice as well as that of Kirke's. During the pilot study, Kirke discussed how she wanted her work to be used by others. She hoped that the patterns she produced would not be simply copied but used as a learning tool. As a result, part of the goal of this project was to document the challenges that I faced and the potential solutions that uncovered. In this way, further analysis can be made either by future researchers or myself.

The half-scale dress form available to me at the time of the project was one with a 1940's silhouette, which may differ from the ideal body shapes during the House of Vionnet's operation (1912-1939). Therefore, this served as a limitation as the patterns may be proportioned to fit a different style or body frame. Vionnet also used an articulated wooden mannequin that rotates on a piano stool to drape her designs. Although the dress form I used can be turned around, it does not sit on a special rotating mechanism. Consequently, the three-dimensionality fluidity of the dress may be less easily observed than on Vionnet's piano stool. In order to identify the warp and weft grid lines on the fabric, I decided to draw them as blue and red lines using oil-based pencil crayons. Another way to do this may be to weave a grid directly on the fabric or sew the lines in. This may provide greater accuracy, but for the purposes of this project, drawn lines will suffice.

Lastly, my limited knowledge of garment construction served as a challenge. I do not have formal training in fashion, so the solutions I attempted may not be considered conventional or proper by industry standards. Nonetheless, I documented my steps and solutions to be adjusted later.

Data Types: Videotaping, Side Commentary, Journal Writing

In terms of the camera set-up, there is no standard procedure. The taping was casual, only requiring the researcher to state the date and number of each pattern at the beginning. I performed the draping exercises as if the camera was not there, so as to not be conscious of mistakes made or the amount of time it takes to do or redo something. As Wolcott suggests, eventually one will forget that he or she is being observed. He states, "People can sustain an act or maintain their best image only so long. Eventually everyone present, researcher included, is likely either to let their guard down or to assume a more natural stance."[111]

Although the researcher is to proceed naturally as if the camera is not there, according to Wolcott, "Fieldwork is characterized by personal involvement to achieve a level of understanding that will be shared with others. . . . What does count is what others stand to learn as a consequence of the fieldworker's investigative effort through the subsequent recounting of it."[112] Therefore, when a portion of the draping process demanded a clear showing of the steps taken to

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[111] Ibid. 49.

[112] ———, *The Art of Fieldwork*, 58.

resolve or construct something, I specifically demonstrated for the camera how it was accomplished.

According to Alvesson and Sköldberg, "reflection can, in the context of empirical research, be defined as the interpretation of interpretation and the launching of critical self-exploration of one's own interpretations."[113] Notes were made of specific points in the process that needed further interpretation or attention later on. These points in the video were viewed again and analyzed. This act of reviewing and revisiting previous thoughts and queries is evident in the proposed side commentary and journal entries described in more detail below.

Wolcott advises "early writing" or "prewriting" in order to "make what we already know or think we know a matter of record. It also helps us recognize areas of inquiry in which information is scant or non-existent. Thus, it can help give focus and purpose to fieldwork still in progress."[114] With this in mind, as I read through Kirke's book and other pertinent material, I wrote comments to record initial impressions and questions. Subsequently, journal entries were created at the end of each reading session to summarize these comments. These journal entries were reviewed prior to the beginning of each draping exercise as a reminder of any issues to look out for and to give a general understanding of the garment at hand.

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[113] Alvesson and Sköldberg, 6.

[114] Wolcott, *The Art of Fieldwork*, 192.

Pattern Analysis: Pattern 1

Pattern 1: Reflexive Methodology

As previously discussed, this project used the participant observation approach, which is an ethnographic technique where the "self is instrument."[115] In this approach, the researcher's viewpoint is unique and is shaped by his or her background. It will influence the direction of the project, and affect the direction another researcher with a different background may take.

The first aspect of my background that had an influence on the process is that I am a novice sewer with a beginner's understanding of garment construction techniques and draping. The second aspect is that I am a practicing intern architect. Architecture is a field that requires visual acuity and spacial understanding. Therefore, when I encounter an obstacle that the limitations of my novice background cannot solve, my natural inclination is to analyze photographs and images. In order to drape the pattern, I needed to first have a general three-dimensional understanding of its concept and how the final product is intended to appear. Consequently, the process I took involved using images and diagrams both from Kirke's and Bunka's books. That is, I began with a rectangular piece of fabric, and used images and diagrams from the aforementioned books to cut and pin the fabric to obtain the shape of the final product.

Having read Kirke's book twice, I was not always pre-disposed to read the brief instructions that accompanied each pattern as they seemed to be geared

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[115] Wolcott, *Ethnography*, 43.

towards readers who want to assemble and sew the garment rather than drape or conceptualize the piece. This is a limitation of Kirke's instructions that encourages faithful reproduction. How Vionnet approached her work is not clear and the following questions come to mind:

- Did she start with drafting a basic pattern on paper?
- Did she sketch a rough pattern on the fabric and develop her ideas further on the dress form?
- Were mere reference points marked on the cloth?
- Did she begin with a complete blank canvas facing her half-scale wooden mannequin?
- Were combinations of these techniques employed?

With the hands-on exercises, what I sought was an understanding of the guiding principles behind Vionnet's techniques, which required looking beyond the brief instructions accompanying each pattern. With the above questions in mind, I debated where to begin - with Kirke's patterns drawn on the cloth or with a blank muslin canvas. Photographs of Vionnet at work seem to suggest that she began her design process by draping a blank muslin canvas on her wooden mannequin.[116] This iconic image might have been staged for the occasion, but has a greater impact on our perception than we realize. It conditions us to assume that this was "the" method she used and had no other approaches. It was a major factor that convinced me to begin draping this way.

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[116] See 1923 photograph of Madeleine Vionnet draping on her half-scale wooden mannequin on a piano bench by Therese Bonney in Betty Kirke, *Madeleine Vionnet*, 6.

Pattern 1: The Draping Process Through My Eyes

Personal Techniques and How I Began the Process

As I do not have formal training in fashion or garment construction, the following will describe solutions derived from my own problem-solving methods. Although I followed images and diagrams for the most part of the project, I did begin this first pattern by looking at the text from Kirke's book. I found that the instructions specific to the pattern were not as helpful as the one entitled "How To Make A Toile."[117] Kirke's pattern instructions seemed to have been designed for someone who will begin with the pattern pieces provided in the book and then sew them together. As I wanted to obtain the pieces through draping, her instructions on how to make a toile were more helpful to the novice as they outlined exactly how to go about this task. In the following paragraphs, I will describe my thoughts and any obstacles I encountered as I draped the pieces while navigating through these instructions.

The first two steps in the generic toile instructions say to cut the approximate sizes of the fabric pieces you would need, pull the warp and weft threads at both ends, and "block to perfect rectangular shape."[118] It was difficult to estimate the size of the fabric as there was no scale on the patterns or any of the diagrams. However, I was able to use the grid lines and scale provided in Bunka's book in order to complete this first step, which was very helpful to the novice and

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[117] Kirke, *Madeleine Vionnet*, 58.

[118] Ibid.

expedited the process.[119] The second step is a little more vague, but from my own deduction at the time, I believed Kirke was aiming to draw our attention to the warp and weft grains on the fabric, and then instructing us to cut the edges of the fabric so that it is square to the grain and perfectly aligned. After discussing this with Bissonnette, I realized that this was not what Kirke intended. Instead, she was instructing readers to pull some warp and weft threads from the fabric in order to rearrange the remaining threads so that they are in a grid at perfect right angles. It is most likely my lack of formal training in garment construction that caused me to misinterpret Kirke's instruction, but my thesis advisor also informed me that this is a method that was once taught in design school but is seldom used today. Consequently, the instructions may have required further explanation even for contemporary fashion designers and students who are using the book.

From previous sewing experience, I understand that the double-headed arrow indicates the edge parallel to the selvedge, and the selvedge in turn is parallel to the warp thread direction. In this way, we can determine the direction of the warp and weft grains.[120] In order to indicate the warp and weft grains on the fabric for reference, I drew grid lines with blue lines indicating the warp grain and red lines indicating the weft grain (See Figure 1). This is a technique Kirke developed for her research that was conducted after her book was published. I decided to use it in this exercise after hearing about it through my thesis advisor

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[119] Bunka Fashion College and Vionnet Research Group, eds., *Vionnet* (Tokyo: Bunka Publishing Bureau,2002), 8-9.

[120] Kirke also defines the double-headed arrow in her legend as a symbol that indicates the direction of the warp grain.Betty Kirke, *Madeleine Vionnet* (San Francisco: Chronicle Books LLC, 1998), 18.

who collaborated with Kirke on draping exercises in early 2000. It has proven to be quite a useful tool. The direction of the grain is an integral part of the design and will influence the way the fabric will move and fall. Keeping track of the direction of the warp and weft grains, however, becomes difficult if you are using fabric without a grid or stripes. Using Kirke's blue and red grid method provides a visual way of keeping track of the warp and weft grains as well as seeing how the grains impact the overall structure.

I drew a five centimetre by five centimetre grid on the fabric using oil-based pencil crayons. This grid size works well as it's spaced close enough to see the lines clearly on a half-scale dress form, and relates easily to Bunka's ten centimetre by ten centimetre grid. In the beginning, I added an extra five centimetres to either side of the rectangular piece that I had estimated. This was done to accommodate potential mistakes, but I later found this to be an unnecessary step. I found that adding the allowances actually served to confuse me more as it skewed the proportion, making the fabric piece larger than it was supposed to be in actuality. It was more helpful to cut the size you needed and later patch it up with smaller pieces if mistakes were made, but always making sure to match the warp and weft grains with those of the main piece of cloth.

The next three steps in Kirke's instructions indicate

"3. Fold in half and mark at regular intervals along edge

4. Open, draw line joining parts in (3)

5. Pin line against center front (or back depending on area working)"[121]

According to my own deduction, I believe she is instructing readers to fold the fabric in half in order to determine the centreline and mark it with a straight line. This will allow me to pin the fabric piece symmetrically to the front of the dress form. Pattern 1 is cut on the grain but hung on the bias, which means that the edges of its front and back pieces will be cut parallel to the blue warp grid lines, but pinned diagonally on the dress form. The centreline for these pieces, therefore, should be determined by folding it diagonally in half. However, because the pieces are rectangular instead of a square, this method does not work well. What worked better for me was to look at the fabric piece and approximate where centre front should be. This can later be adjusted on the dress form if need be (see Figure 2).

The next two steps indicate readers to

"6. Mark the waist, neck, and hips at bottom of form.

7. Drape, cut, and pin desired design."[122]

I believe the main idea behind step 6 is to create reference points as guides while draping. Because I started from a rectangular piece of fabric rather than cutting the exact shape of the pattern as shown in the book, marking the location of the waist, neck and hips on the fabric can act as reference points and give a sense of proportion. What I found useful in this step was to look at Kirke's patterns and note the approximate location of belt holes. This helps to indicate the proper

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[121] Ibid., 58.

[122] Ibid.

orientation of the fabric piece on the dress form as we know the belt holes are roughly at the waist or hips. Working from here, I can determine how much fabric we need proportionally for the top, bottom and sides.

The instructions after step 7 focus on what to do after the desired design has been achieved. Therefore, there are no specific instructions to guide the actual draping process. Using various clues from the pattern pieces, as described above, and combining it with images of the final product and Bunka's step-by-step diagrams, helped with this missing information.[123] In this pattern, I knew from looking at the images that the dress had a cowl neckline; however, I did not know how to construct it. Nonetheless, by examining the front pattern piece as drawn in Kirke's book, we can see that this detail can be achieved by cutting the top left corner of a rectangle. The two endpoints of this angular cut can be placed at either points of the shoulders on the dress form, and the fabric in between pushed down to form the folds of the cowl neckline (see Figure 3a and 3b). Initially, I attempted to cut the corner of the rectangle pattern piece while it was pinned to the dress form, but discovered that it was too difficult to cut a straight line. I had to remove the pattern piece from the dress form, cut the straight line while the fabric lay on the table, and pin it back. I had to repeat this several times until the cut was wide enough to provide the necessary volume for the drape in the neckline. Cutting a longer line also gave more flexibility in terms of where I could place the endpoints on the shoulders, and the amount of drape I wanted for the neckline.

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[123] Ibid, 46, 49; Bunka Fashion College and Vionnet Research Group, 7, 1-11.

The next step I took was to make the gathered detail at the shoulder sections and I accomplished this on the dress form by making tiny folds and pinning (see Figure 4). After this was in place, I began to cut the shape of the armhole and discovered that this can be achieved by looking at the pattern shape as drawn in Kirke's book. From observing the pattern, we can see that the armhole forms a right angle following the warp and weft lines.[124] Looking at the left side of the front and back pattern pieces marked "II FRONT + BACK," the edge labelled "ARMHOLE" is cut along the weft grain; therefore, this cut should be made along or parallel to the red lines on the fabric.[125] Looking at the pattern again, it appears another cut is made perpendicular to the aforementioned weft grain. This perpendicular cut falls along the warp grain or blue lines on the fabric (see Figure 5). Using this method, it is evident how the warp and weft lines on the fabric, drawn as blue and red lines respectively, are useful in providing a visual reference. It enables one to understand how the cut lines are related to the grain as well as the body. Without the grid on the fabric, results would be far less accurate and the internalization of Vionnet's thought process not as strong.

After I draped the front pattern piece, the next step was to determine whether to drape the side pieces first or the back. I decided at random to drape the rest of the pattern pieces in a clockwise manner, beginning with the right side, then the back, and ending with the left side. To drape the right side of the garment,

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[124] Ibid., 47.

[125] In this paper, the "left side" and "right side" refer to the orientation of the pattern pieces or the dress form as the reader is facing them.

I began by observing the markings on the side pattern piece in Kirke's book labeled "III SIDES." I decided to start with the most obvious cut, which was to create the underarm. I did this by cutting the top left corner of a rectangular piece of fabric and placing the endpoints of this cut to match the armhole points of the front piece (see Figure 6a and 6b). Another way we can figure out how the side pattern piece should be oriented on the dress form is by observing other markings. For instance, the word “JABOT” on Kirke’s pattern is a good reference point as we know that this detail should form a triangular point when hung at the hem of the dress. From this, it is evident that the rectangular shape of the side pattern piece should be turned diagonally in a clockwise manner when placed on the dress form (see Figure 7).

The other challenge when draping the side piece was to figure out how it connects to the front. The blue and red grid lines denoting the warp and weft grains can once again help to achieve this. Looking at the front pattern piece marked “II FRONT + BACK” from Kirke’s book, we can see a dotted line that extends from the edge labeled “ARMHOLE” on our right. This dotted line, according to Kirke’s legend, represents a seam line.[126] This seam line extends from the armhole and runs parallel to the warp grain. Therefore, you can locate this line on the fabric by finding the same armhole edge, and tracing a line parallel to the blue grid lines. A matching dotted line is also shown on the side pattern piece marked “III SIDES” from Kirke’s book. Using the same concept, we can

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[126] Ibid., 18. The seam line is where one would stitch the fabric.

locate this seam line on the fabric by finding the "UNDERARM" endpoint and tracing a line parallel to the warp grain or blue grid lines. After locating these two seam lines, I can pin them together, connecting the front and side pieces (see Figure 8a and 8b). Another method to determine how these two pieces connect would be to use the belt openings (ovals on the dotted lines) marked on the side pattern piece as a point of reference. These belt openings are informative as we know that they should be placed at the side of the dress form, and match the belt openings on the front pattern piece.

The side pattern piece in the book also has an L-shaped portion at the bottom left that connects to the front pattern piece (See Figure 9a).[127] When I draped the side of the garment, I began with a simple rectangular piece hoping to cut out this L-shaped portion directly on the dress form. Before proceeding, however, I wanted to first analyze how this portion would connect to the front piece in order to plan how I would cut it out. Trying to visualize how to cut out this portion proved more difficult than expected because there were not a lot of diagrams and photographs showing the side view of the dress. I ended up using Bunka's step-by-step diagrams as a guide. Even so, it was a combination of looking at the diagrams and finally just cutting the fabric and playing around with it that enabled me to fully understand the purpose of this L-shaped portion, which

[127] In this garment, the left side pattern piece is not mirrored when placed on the right side. It remains in the same orientation.

once connected to the front piece, evidently forms a jabot at the hem (see Figure 9b).[128]

After pinning the seam lines of the front and right side pattern pieces together, I realized that this seam does not appear to be in the sketch and is not evident in the photographs of the garment in Kirke's book. It also does not seem to be evident in the photographs provided in Bunka's book. As I used photographs, sketches and diagrams as a guide for draping, it led me to question whether I had connected the pieces correctly or if the seam is even there. I checked Kirke's step-by-step instructions and noticed that she does in fact direct readers to create the seam. Inspecting one photograph in her book more carefully, I noticed that there is a faint indication of this seam line there. Therefore, the apparent omission of this seam from photographs and diagrams can be a lack of comprehension or artistic decision by the sketch artist, or a seam line sewn so well by couture techniques that it does not show on photographs. Only the pattern and Kirke's instructions tell us it exists while the photographs and sketches are silent. This complicates a novice's life.

The back pattern piece is similar to the front as the pattern shape is identical; therefore, I began by draping the back in a similar manner as I had done in the front. That is, I first cut the top left corner of a rectangular fabric piece and placed the two endpoints of the cut on either shoulders of the dress form. I adjusted the width of this cut according to the volume I wanted for the cowl

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[128] In the case of the placement of this jabot, it would be called a "handkerchief hem" today.

neckline.[129] I then gathered the shoulder portions by making small folds and pinning, and cut the armhole shape by using the warp and weft grid lines drawn on the fabric as a guide. Finally, I connected the back piece to the side piece by once again using the warp and weft grid lines and clues from the pattern markings in Kirke's book to locate the seam lines.

Just as draping the back pattern piece is similar to the front, draping the pattern piece on the left would be identical to the right. Once again, I began with a rectangular piece and cut the upper left corner to create the neckline. I then placed the endpoints of this cut to match the armhole points on the front and back pattern pieces that are already draped. Similar to the other pattern pieces, I located the seam line by using warp grid lines as a guide, and pinned it to the seam lines of the back and right side pieces.

The major challenge I encountered in draping the last side pattern piece was once again fitting the "L-shaped" portion at the bottom left corner. This portion should attach to the bottom of the back pattern piece just as the right side piece had attached to the front. As I previously found it difficult to cut this portion directly on the dress form, I decided to cut the "L" shape before draping the fabric. I estimated the proportion of the shape from Bunka's grid lines. However, when I tried to add this portion to the side piece and stitch it to the bottom of the back pattern piece it did not seem to match up. One possible reason for this

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[129] While there is no mention of a different front and back necklines on the pattern, a cowl neckline is often draped in the front and not in the back, which would make the neckline segment in the back shorter. As the piece is only sketched and photographed from the front, I included a draped cowl neckline in back.

discrepancy could be that the inaccuracies of all the other pieces have added up which made it difficult to fit this last piece. Since I had tried cutting this portion on the dress form as well as pre-cutting it before draping, and both methods had not been successful, I was not sure what the solution should be. After speaking to Bissonnette, she pointed out that the L-shaped portion of this pattern was actually pieced. This meant that the horizontal part of this "L" shape was likely connected after the rest of the side was draped; it may not be draped as one L-shaped piece. I did not initially notice this marking, but the pattern in Kirke's book does indicate with a solid line where the pattern should be pieced together.

I found that understanding how the pattern pieces were "layered" also helped in draping this garment. More specifically, seeing which pattern piece came on top, and which one tucked underneath when pinning the seam lines together. This can be accomplished by analyzing the photographs. The main observation I used as a guide was noticing that the left side of all pattern pieces tucked underneath the pattern piece adjacent to it, while the right sides laid on top. This simple yet undisclosed method continues all around with all four pieces. (see Figure 10a, 10b, 10c and 10d).

After the garment has been draped, the next step would be to take down the toile and observe how closely the pieces compare to the shape of Kirke's patterns. Before taking down the toile, however, I marked down some reference points on the fabric. These reference points can help in analyzing the pattern pieces and act as guides in the event you would like to pin them back on the dress

form or sew them together. For instance, I drew a triangular symbol just as in commercial patterns to indicate where two pieces meet (See Figure 11). Later, Bissonnette showed me another technique of using dotted lines to show where the seam lines are that connect the pieces together. After these reference points were drawn, I unpinned the toile from the dress form and compared them to Kirke's patterns; I found them to be similar in shape.

My goal in completing these hands-on exercises is to gain a better understanding of the guiding principles behind Vionnet's techniques. I wanted to reconstruct a gown by draping, as described above, but also aimed to analyze the process I took and extract any issues or concepts I encountered. The following section will discuss and summarize some of these findings.

Pattern 1: Solutions and Conjectures

After reviewing the videos of my draping exercise, and observing the steps I had outlined in the section above, I found that there were two underlying themes in the thoughts and conclusions I expressed. The first one being fabric conservation. I found that I was not able to drape as freely as I had wanted because of a concern with wasting fabric and the cost of having to purchase more. The second is reconciling the conflict between what I assumed Vionnet's method to be and tried to emulate, and what methods I found to work better for myself.

Fabric Conservation

Before I began draping this garment, especially as it was the first one I tackled, I felt a great need to plan exactly how I was going to cut the fabric. I would map out where I would make the cut and justify why I was doing it by observing images and diagrams in Kirke's and Bunka's books. The inclination to do this stemmed from a conscientious need to conserve fabric in order to prevent waste as well as to save money.[130] Although planned cutting helps to better understand the concept of the piece, it can also cause hesitation which can be detrimental to the novice as it hinders experimentation. One way I found that helped to reconcile my concerns with having a freer approach, was to cut with the notion that I can patch up areas from scrap pieces, provided that I keep the orientation of the warp and weft grains consistent (see Figure 9b). Knowing that mistakes could always be fixed this way allowed me take more risks and be less afraid to test an idea. This method will be more evident in the subsequent pieces that I draped as I applied it more frequently after internalizing it from this exercise.

When I first set out to drape this garment I had cut the approximate size of every rectangular fabric piece I needed. However, I added a five centimetre allowance on either side for a total of an extra ten centimetres in length per edge. The inclination to do this once again stems from the need to pre-plan in order to avoid mistakes, but I found that taking these steps actually served against me.

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[130] This was especially the case after realizing that muslin was not as cheap as I expected.

Firstly, I found it better to cut each rectangular fabric piece as I needed it, so that if I learned something from draping one piece I can directly apply it when I cut and drape the next one. Secondly, adding the allowances ended up skewing the proportions, as the pieces were much bigger than what was actually called for in the pattern. In some cases I ended up with too much fabric in one area or having parts that would not line up. After realizing this, I cut the allowances off, leaving the exact proportion as outlined by Bunka's gridlines, and found it much easier to drape and visualize. I believe the problem was in the fact that I added the allowances but unconsciously draped the fabric pieces as if they were not there. As a novice, my mind was not inclined to multi-tasking; it was therefore better to keep things simple. Perhaps with more experience, it will become easier to juggle having to account for the allowance while trying to figure out how to drape the garment in general.

When I first set out to design the parameters of the project, I had wanted to drape the pieces in full scale. However, Bissonnette advised me that this would be too large an undertaking for the scope of the project. She suggested that, for the purposes of my project, I can accomplish and learn the same things at half-scale. I found that this was definitely the case, and, as a novice, draping at full scale might prove to be too overwhelming as some of the patterns require the manipulation of large pieces of fabric. Furthermore, draping at half-scale is generally more economical, especially for the novice who will undoubtedly make some errors. Draping at half-scale can allow the novice to take a freer approach as it will allow

he or she to use fabric scraps to patch up mistakes. Moreover, if one felt the need to redo an entire pattern piece, less fabric will be required to do this.

Vionnet's Method

Photographs of Vionnet at work show her draping and cutting blank muslin cloth directly on a half-scale wooden mannequin. These iconic images impact our perception of the process and lead us to assume that this was the only method she used to produce her designs. They erase the possibility that she could have combined multiple approaches. In this exercise, I found that I relied on different tools to achieve the final product. I referred to images and diagrams of the finished garment in different views from both Kirke's and Bunka's books. I also looked at patterns as they were drawn in both books to locate key areas like belt holes, necklines and arm holes. I used these as guides to give me a point of reference, and also a way of gauging scale and proportion. This leads me to think that perhaps Vionnet did not just drape "freely" using blank muslin cloth on her mannequin but also combined flat-pattern drafting along the way.

During the draping process, I used clues from Kirke's patterns such as the location of belt holes as a guide. However, the perception that Vionnet always began with a blank muslin canvas made me feel like I was cheating by looking at the pattern. Looking at the way Kirke's book is divided, we can see that she has grouped the garments in accordance to the geometric shape of their patterns - rectangle, circle or triangle. This leads me to question whether Vionnet began with an image of the final product, as our current perception of draping entails, and

then proceeded to drape her vision, or whether she began with a pre-traced or pre-cut geometric shape on canvas and manipulated it through draping to obtain an interesting design. In other words, is it possible that she dreamed of the pattern shape and its possible modifications before envisioning the look of the final product? The idea of using patterns as a start-off point in design might seem backwards as we are trained to think that draping is the more "abstract" form and hence a more suitable way to express the vision that is in our minds. Evaluating the process I took, I am inclined to think that Vionnet's design process was more multifaceted than the iconic images of her portray.

While draping this garment, I also realized that there is an overall concept governing how the pattern pieces attached together. For instance, the pattern pieces tucked and overlapped one another in a consistent way; it did not seem random or done in a free form manner. Therefore, it leads me to suspect once again that Vionnet could have begun with a concept for the pattern or construction of the garment rather than the overall look. Perhaps she came up with a concept of how a particular geometric shape can be attached together and then tested it on the dress form, manipulating it here and there to achieve the final product. Furthermore, understanding the concept of how this garment is constructed helped to drape it. In this case, knowing that the pattern pieces were connected almost like a pinwheel rather than a tube allowed me to visualize how the garment should appear. Therefore, it seems the core concept of this garment lies in its construction as much as its appearance.

Pattern 1: Conclusion

As stated, the goal of this hands-on exercise was to gain a better understanding of the guiding principles behind Vionnet's techniques. In order to do this I wanted to reconstruct the pieces by draping on a half-scale dress form, as inspired by iconic images of Vionnet at work. Through this reconstruction process I hoped to document my experience of problem-solving as a novice, and analyze any issues or concepts I encountered. In this particular exercise, two themes related to fabric conservation and Vionnet's methods were identified. Fabric conservation was always forefront in my mind, which inclined me to pre-plan and over-think every cut. However, this hindered my progress as a novice because it discouraged experimentation while problem-solving. Therefore, I found it more effective to limit the amount of pre-planning and cut the fabric as I resolved the issue. If mistakes were made they could be easily patched up and remedied with fabric scraps, especially as I was draping at half-scale. In terms of Vionnet's methods, I began the reconstruction process with the intention of only using draping techniques. However, as I worked through the exercise, I discovered that I increasingly relied on various methods to come to a solution. For instance, I referred to images and diagrams of the finished garment from Kirke's and Bunka's books, as well as observing the patterns to locate key areas like belt holes, necklines and armholes and using them as guides. Furthermore, especially in this particular garment, the way the pieces connected together followed a consistent scheme, which shows that the way it is constructed forms a significant part of its

overall concept. This leads me to conclude that Vionnet's design process was much more multifaceted than what the iconic images of her portray, and she most likely combined both draping and flat-pattern drafting techniques.

The Players - Layers of Influence

In the methodology section, I discussed the role of the "The Players," which are layers of various influences that have the potential to affect the direction of the project or how the final outcome might shape out to be. It is important to tie these influences to the conclusions made in this pattern to see what impact they had. In terms of materials, the choice of using muslin as opposed to the silk crêpe Vionnet employed for the final garment proved to be more practical. During this exercise, I discovered that it was more helpful not to pre-plan and just cut the fabric as I resolved the issue. Silk crêpe would have been too expensive to buy in larger quantities to afford this type of experimentation. In terms of other influences, I discovered that I relied on the diagrams and images in Kirke's and Bunka's books more than I initially expected. This will affect the way I will drape the subsequent exercises and how I view Vionnet's design process.

PATTERN 1: FIGURES 1 TO 11

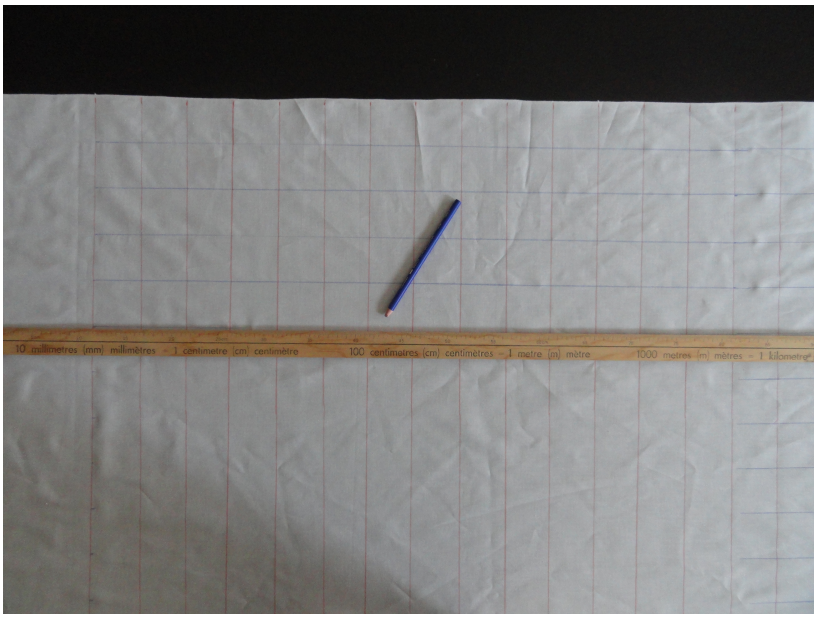


Figure 1: Blue and red grid lines on fabric indicating the orientation of warp and weft grains respectively.

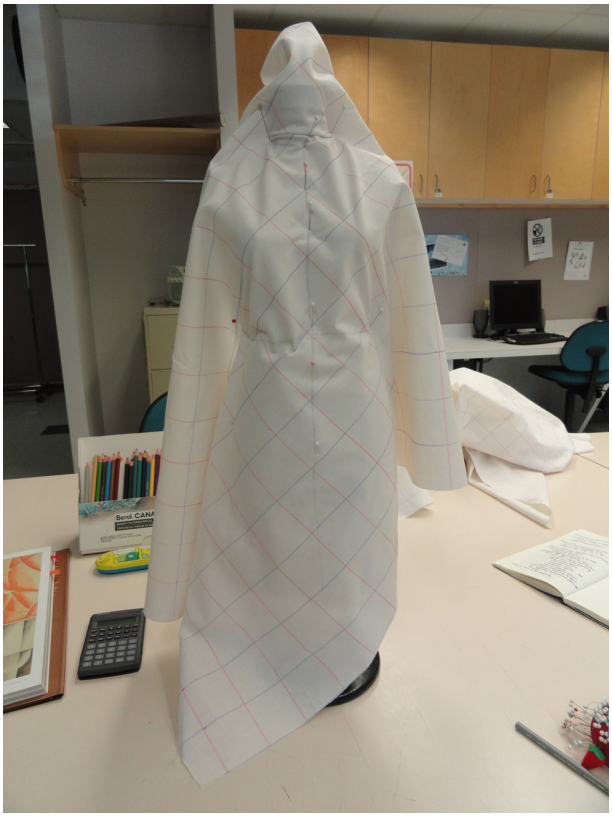
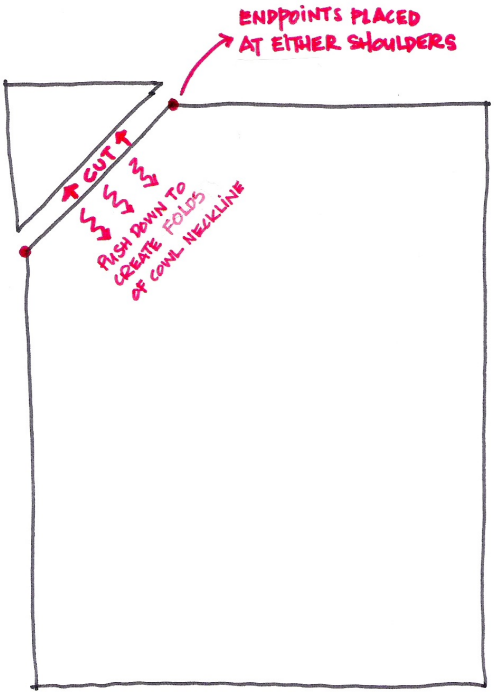


Figure 2: Front pattern piece pinned diagonally on the dress form with the approximate locations of the centre front and waistline shown.



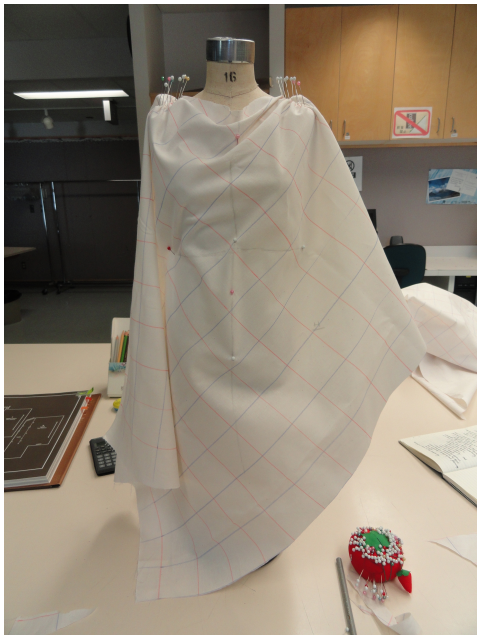


Figure 3a (left): Cut top left corner of a rectangle to create cowl neckline. Figure 3b (right): Endpoints of the angular cut placed at the shoulders and the volume of fabric in between pushed down to create the folds of the cowl neckline.

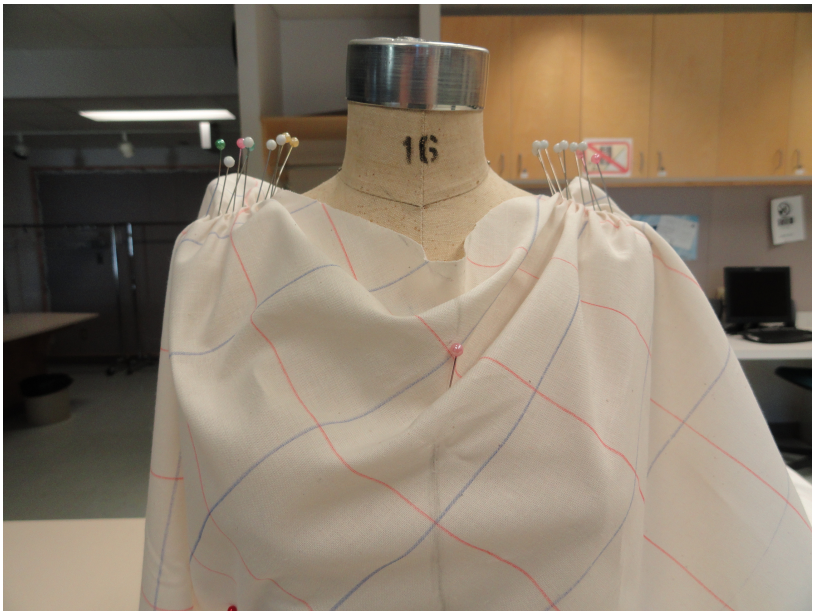


Figure 4: Close up of shoulders showing gathered detail created by making tiny folds and pinning.

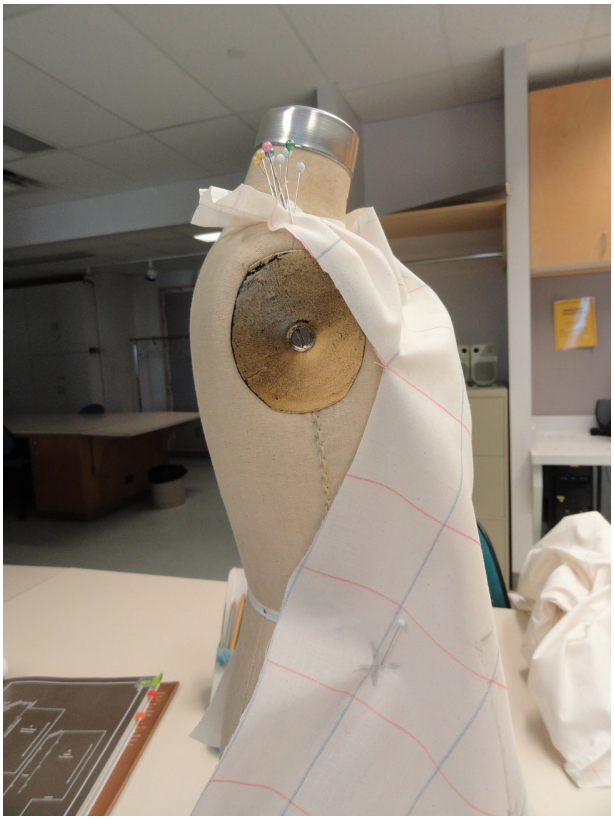
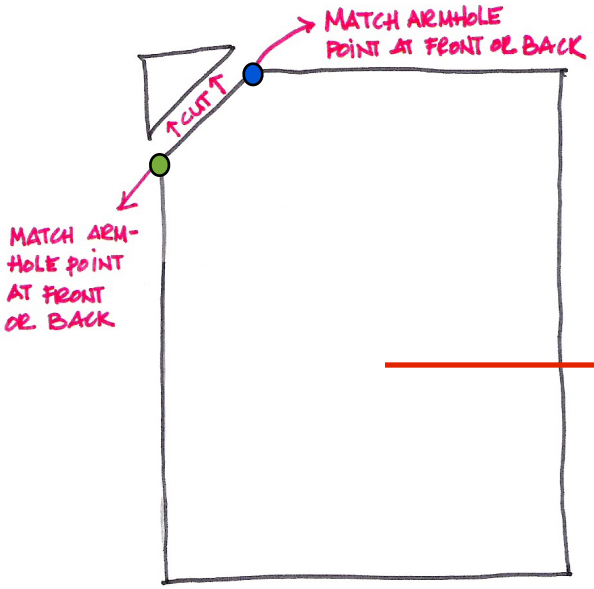


Figure 5: Left side of front pattern piece. Armhole showing the cut along the red weft lines and blue warp lines.



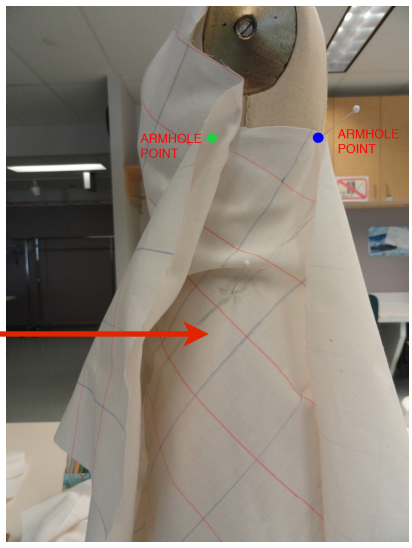


Figure 6a (left): Cut top left corner of a rectangle to create side underarm.
Figure 6b (right): Right side of front pattern piece. Matching armhole points of the front and side pattern pieces.

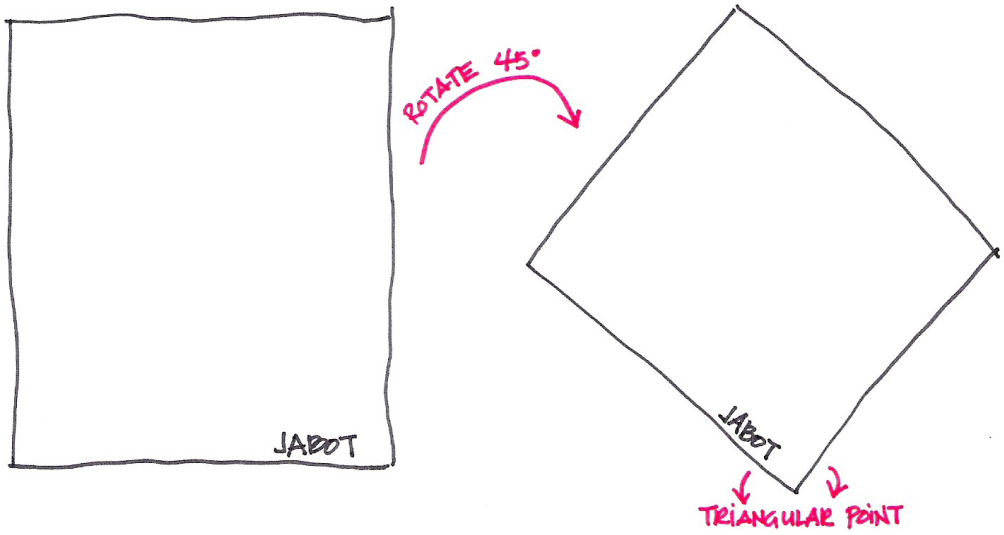


Figure 7: Jabot details form a triangular point at the hemline of a garment. Therefore, it can offer clues as to how the fabric should be oriented on the dress form.

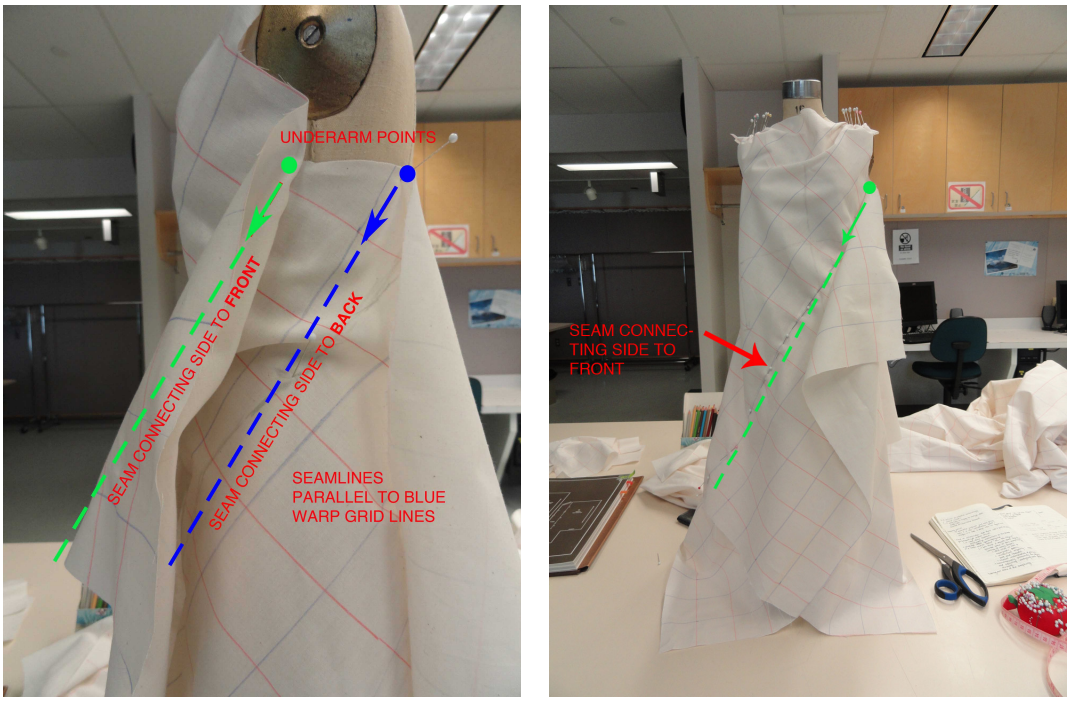


Figure 8a (left): Determining seam lines to connect front and side pattern pieces together. Figure 8b (right): Seam line connecting front and side pieces.

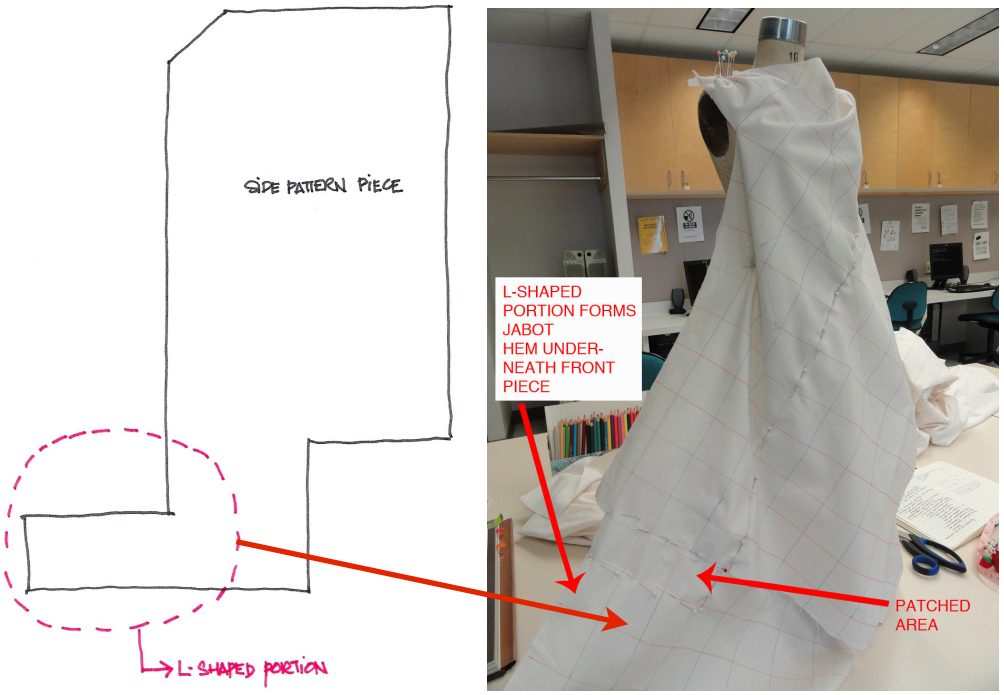
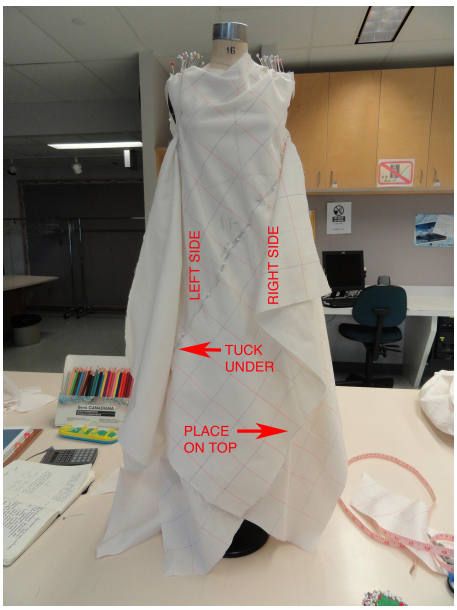


Figure 9a (left): The L-shaped portion of the side pattern piece. Figure 9b (right): L-shaped portion of the side pattern piece connected to the front pattern piece. Area that did not match up perfectly was patched up with fabric scrap.



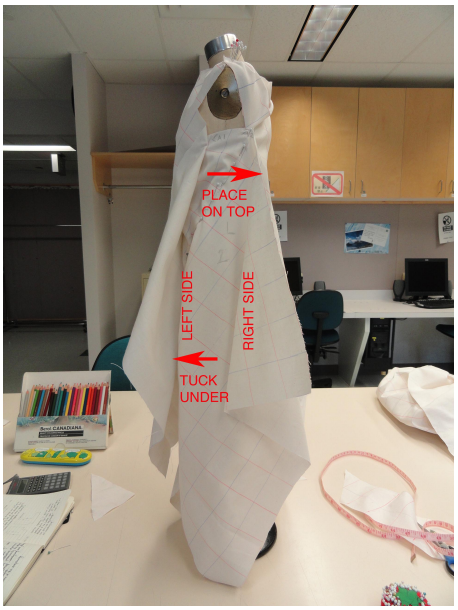
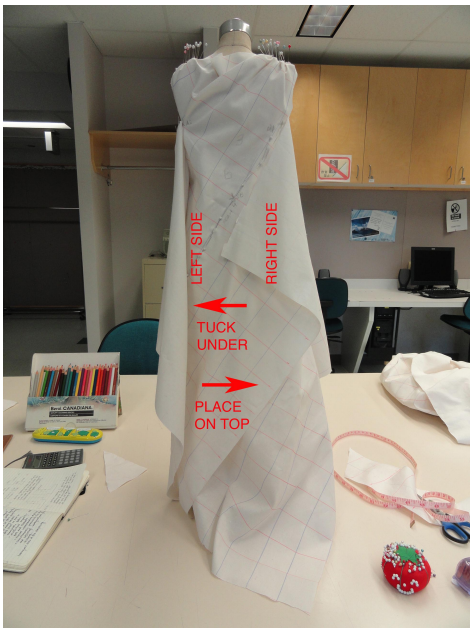


Figure 10a (left): Front pattern piece: the left portion of the pattern piece tucks underneath the left side piece while the right portion of the pattern piece lays on top of the right side piece. Figure 10b (right): Right side pattern piece: the left portion of the pattern piece tucks underneath the front pattern piece, while its right side lays on top of the back pattern piece.



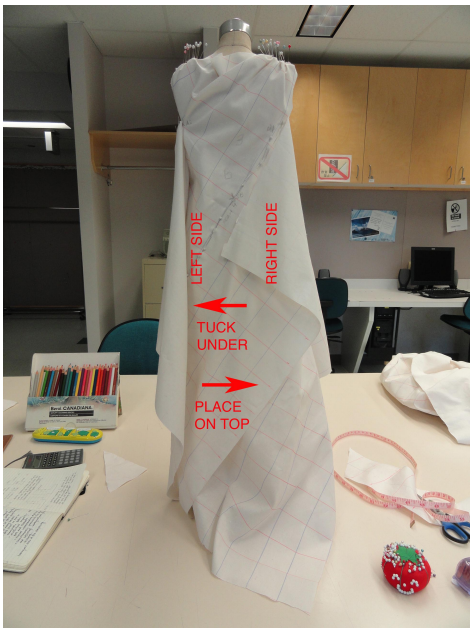


Figure 10c (left): Back pattern piece: the left portion of the pattern piece tucks underneath the right side pattern piece while its right portion lays on top of the left side pattern piece. Figure 10d (right): Left side pattern piece: the left portion of the pattern piece tucks underneath the back pattern piece, while its right portion lays on top of the front pattern piece.

Figure 11: Triangular notching symbol indicating where two pieces meet.

Pattern Analysis: Pattern 3

Pattern 3: Reflexive Methodology

In the previous exercise, I began with the notion of reconstructing Kirke's patterns by solely draping and following images and photographs of the final product rather than looking at Kirke's pattern. As a naturally visual learner, I needed to gain a three-dimensional understanding of how the garment is intended to appear and use it as a guide in the draping process. However, as I draped the previous pattern, I discovered that I increasingly relied on other tools as well, such as the words and symbols on Kirke's patterns and Bunka's step-by-step diagrams. While this felt like cheating at first, I concluded from the geometric nature of Vionnet's patterns and the manner in which Pattern 1 was constructed that her design process was more multifaceted than I expected. Therefore, in this new investigation, I draped the garment by looking at photographs and images as well as observing Kirke's patterns.

Cured of the habit of fabric conservation and planned cutting, in this exercise, mistakes will be kept, documented, and fixed with numerous patches of fabric.[131] It is a long and winding road of trials and tribulations but these led to enlightenment on different levels.

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[131] Bissonnette informed me that this is not atypical to designers who drape cloth on the bias. American creator Charles Kleibacker was also a devotee of this method.

Pattern 3: The Draping Process Through My Eyes

Personal Techniques and How I Began the Process

In the previous investigation, I began the process by following Kirke's instructions on "How to Make a Toile." After having gained a general understanding of the draping process from it, I kept her instructions as a guide in the back of my mind without referring to them step-by-step. The first action in this investigation was to cut the approximate size of fabric that I needed following Bunka's grid lines as a guide. I mentioned in the last exercise that it is better to cut the shape of the pattern pieces as you drape them so that you can apply knowledge gained from the previous pattern piece to the next. However, observing the two pattern pieces for this garment, they appear to be almost identical squares that are cut along the grain. Therefore, I decided to cut the two different pattern pieces for the right side of the body and their doubles for the left side all at once.

The next step was to determine the orientation in which the fabric pieces should be hung on the dress form. I accomplished this by gathering clues from the markings on Kirke's pattern pieces.[132] I started with the front pattern labelled "I Two Pieces."[133] The pattern as it is drawn in the book is for the left front, and the right front will be a mirror image of it. Starting with the front piece, and in order to match the edges marked "ARMHOLE" and "NECK OPENING" to the

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[132] Betty Kirke, *Madeleine Vionnet*, 55.

[133] We can determine that this pattern is for the front of the body rather than the back by observing the markings. In this case, the dotted line on this pattern is marked "CENTER FRONT" as opposed to the other pattern that is marked "CENTER BACK." Furthermore, as stated in the previous exercise, the "left side" and "right side" refer to the viewer's point of view as they are facing the dress form.

appropriate locations on the dress form, I needed to rotate the piece so that points "A" and "B" are on top and the grain (marked with an arrow) is at a forty-five degree angle. The dress will therefore hang on the bias (see Figure 12). Looking at the markings on the pattern, centre front is indicated above one of the dotted lines. I thus matched this line to the corresponding location on the dress form. The segment marked "NECK OPENING" begins from a point on the centre front line, and, to determine how low this point should fall on the dress form, I observed photographs of the garment. From this segment, I followed the edge to where the word "JABOT" is written. This jabot portion should hang loosely at centre front and forms the lower portion of the skirt (see Figure 13). The front left and right patterns were then assembled at the centre front to drape gracefully over the dress form and not according to any specific angle of the cloth's grid.[134]

After pinning the centre front line, the next challenge was to cut the armhole and shoulder segment. Upon observing the pattern in Kirke's book, the "ARMHOLE" segment begins from the shoulder seam (point A) and follows the edge of the pattern marked "SIDE" which leads to the jabot that drapes over the side seam. The angle and curvature of the armhole is very slight. In fact this segment is very counter-intuitive: instead of curving in to accommodate the presence of the limb, it seems to angle in the opposite direction. As a result, when tracing this segment on the dress form, I yearned to apply my twenty-first century notion of what armholes should be and felt the curve should be deeper than what

[134] My inability to see that the centre front should be on the true bias is an error that will recur at the centre back and sides.

is portrayed in Kirke's pattern. Battling with this dilemma, I decided to tackle the shoulder section first, which appears to be twisted at the top. The "twist" at the shoulder acts like a tuck that provides volume for the bust.[135] The twist is created the following way: instead of having both front and back shoulder seams link conventionally at the shoulders, the front shoulder section is turned over and sewn wrong side up. Without scrutinizing images in the book, I decided to flip the front shoulder from the side towards the centre because it appeared to provide more volume for the breasts (see Figure 14). My conclusion at the time was that perhaps it does not matter which direction you twist. Later on, I discovered that there is a picture in Kirke's book that shows the direction of the twist, which is from the centre to the side, and thus not the direction I followed.[136] Nonetheless, after I created the twist at the shoulders (in the wrong direction), I returned to the dilemma of the armhole shape. I decided to follow the idea of cutting on the spot and worrying about mistakes later. Consequently, I decided to cut a deeply curved armhole shape on the left front side to see where it would lead me.

I then addressed the next pattern piece "II Two Pieces" which covers the back of the dress but is very similar to the front piece labelled "I Two Pieces." I first rotated the piece to fall on the bias, pinned the shoulder section, let the fabric hang down, found the lowest point of the neckline, pinned this down, matched the back jabot edges, and began pinning the centre back to fall gracefully over the

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[135] I learned this fact from draping this garment in the pilot study.

[136] Kirke, *Madeleine Vionnet*, 54.

dress form and not according to any angle on the grid line (see Figure 15).[137] The issue of the armhole arose for the back, and with it, my actions for the front returned to haunt me. Despite having created a curved armhole that contradicted Kirke's pattern for the front left side, I decided to make another attempt at creating a gentler slope for the front right armhole. In time, I saw that it was better to wait until all the pattern pieces have been draped and pinned together. I hoped that seeing the garment draped in its entirety could provide new clues for a solution to the armhole.

After draping the left and right front pieces, then the left and right back pieces using the general strategy described above, the next step was to connect the front and back. To do so, I assembled the other dotted lines opposite centre front and centre back: these stitch lines become the side seams over which jabots drape freely. When doing this, I first matched the front and back jabot edges together so that they were even and then pinned the side seams to drape gracefully over the dress form and not according to any specific angle of the cloth's grid (see Figure 16).

Comparing the armhole shape of the front and back patterns in Kirke's book, it is evident that the back pattern has a more pronounced angle between the armhole and the segment labelled "SIDE" that leads to the jabot. This side jabot edge constitutes the side of the piece of cloth rather than the side seam. The armhole shape for the back was therefore easier to create to correspond to Kirke's

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[137] The back shoulder section is not twisted. Only the front shoulder section is twisted.

pattern. However, as I played more and more with the fabric, it seemed that the shape of the armhole at the front continues to sit better with a more dramatic angle than what is described in Kirke's pattern. Consequently, in the end, I decided to cut the right front armhole in the same steep angle as I had cut the left front armhole. The final step after cutting all the armholes was to mark the seams and edges that matched together on the cloth so that they could be taken off the dress form and reassembled later.

Corrections and Modifications - Draping with Guidance

After consulting with Bissonnette, we decided that it would be better to make another attempt at bringing the draped garment closer to Kirke's patterns. This time she stayed to drape alongside me in order to guide me in the process.[138] In this section I will rework the armhole shape at the front so that the angle between the armhole segment and the side jabot edge is less steep. Furthermore, I discovered that I had twisted the shoulder section in the wrong direction, and did not sew the dotted lines on the true bias at centre front, centre back and sides as the pattern calls for. Going by the idea of patching up mistakes with fabric scraps rather than cutting a fresh pattern piece, I removed the front pattern pieces from the dress form and pinned a smaller piece of fabric along the edge of the armhole in order to return to a more square shape again (see Figure 17).

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[138] When I first draped this garment on my own I had completed it quite quickly as it seemed straightforward. However, it was only simple because my novice eyes could not see where the mistakes and inaccuracies were. Bissonnette was able to spot them immediately and consequently decided to work through correcting the problem areas with me. I will continue to use the first person in describing the process as I was still the one draping the fabric pieces on the dress form, but note that in this section my thesis advisor was there coaching me in the background.

After patching up the armhole sections, I pinned the left and right front pattern pieces on the dress form along the dotted centre front line that falls on the true bias. By doing this, the garment should appear more tubular, which upon observing the pattern in Kirke's book, is the intended shape for the garment (see Figure 18). When the gown is finished, each of the four pattern pieces will have a central section that will constitute one quarter of a tube. Therefore, a modified version of the previous draping strategy is to: rotate the fabric to fall on the bias, pin the top corners of the squares at the shoulders leaving enough fabric to later complete that section, find the lowest point of the neckline (front and back), match the jabot edges, and pin the seam in the centre front, centre back and sides along the true bias. The true bias is easy to find as the fabric has warp and weft gridlines drawn on it; the true bias would be a straight line connecting the intersections of the warp and weft grid (see Figure 19).

In this re-draping exercise, I removed the part where I had allowed the fabric to hang down freely, not paying attention that the stitch lines fell on the true bias. As will be discussed in the next section, this forced me to pin the seam lines following Kirke's pattern rather than to my own twenty-first century taste. The other difference in this re-draping under supervision is that I did not twist the shoulder sections before pinning them down. At this point in the exercise, I decided to tackle the shape of the armhole once more before re-creating the twist at the shoulder. As we shall see, several problems arose from this decision.

The best way to begin re-shaping the armholes is to use the warp and weft grid lines as a guide and to resist twenty-first century impulses. For instance, I was inclined to cut the front armhole into a deep curve even if I knew the pattern called for a straighter line. Since we know that this pattern piece is cut along the grain, we can extend the grid line that starts at the side jabot edge, passing through the underarm point, and, from this point, angle slightly out until it curves slightly in the last quarter to reach the shoulder line.[139] This toile's underarm point should be at a comfortable distance away from the dress form's underarm point below the metal plate. We can mark the toile's underarm point by pinning it down, and, from here, start to draw a straight armhole line angling up towards the shoulder, making sure not to take into consideration the round metal plate of the dress form that usually delineates the armcye placement in twenty-first century design. The bulk of the segment creating the front armhole should form a slight acute angle from the baseline side jabot edge of the pattern (see Figure 20b). Before connecting this line to the shoulder with a curve in the last quarter, it became evident that I would need to redo the "twist" at the shoulder section in front to establish where point "A" lies at the shoulder line. Observing Kirke's pattern markings for the front "I" piece, we see that the segment described as "NECK OPENING" is also at a slight angle from the baseline front jabot edge. Consequently, the re-twisting of the shoulder section must also include a change in both the front neck opening and

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[139] During this exercise, I learned that I had reversed the orientation of the warp and weft grid lines. Where the warp lines are shown on the fabric, the weft lines should run, and vice versa. After speaking to Bissonnette she said that the reversal of the warp and weft in this case should not affect the drape of the garment. Therefore, I kept them as they were, but it is important to note that in the pictures, the blue and red lines, the warp and weft respectively, should be reversed.

front jabot edge before the shoulder twist is completed and the armhole can be re-shaped. The logistic of this pattern and the subtleties involved are far more complicated than it would appear at first glance.

The modified order of draping, therefore, must address the front neck opening angle correction and shoulder twist before the shape of the armhole is tackled. To do so, I first twisted the front shoulder section (centre to side) along the shoulder seam (see Figure 20a and 20b). After pinning down the shoulder twist, I then established points "A" and estimated point "B" which are needed to complete the armhole and front neck opening.

To obtain the angle at the front neck opening, I once again used the grid lines as a guide. It is important to remember that point "A" that we just obtained will remain the same. Point "B" will change slightly as we need to re-locate the bottom of the "V" on the centre front stitch line. By lowering it, it will create an angle on the pattern edge where I had none. This angle will change point "B" slightly and lower the front jabot edge. As the front jabot edge is cut along the weft grain, I traced a line parallel to it that connects to the new bottom of the "V" neck opening and, from there, reached point "B." With those new lines established, I cut off the excess of cloth. I folded the cloth along the neck-opening angle, to establish the slight change in point "B" (see Figure 21). This generates a slightly larger acute angle at the front neck opening than that of the front armhole.[140]

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[140] Strangely enough, the opposite is needed for the back piece.

Observing Kirke's patterns, it appears that the armhole in the back piece "II" is more pronounced than the front armhole. According to current pattern-drafting practices, this seems contradictory because the back is the "flatter" part of the body. Nonetheless, I attempted to modify the back piece to conform to Kirke's book where the neck opening was mostly an extension of the back jabot edge curve in the last quarter near the neck. A pronounced armhole angle in the back is also depicted. One thing the reader should remember is that points "A" and "B" in the back are at different locations than in the front because of the twist that takes place only in the front. On the back piece, "A" is at the end of the neck opening while "B" is at the end of the armhole segment. I did not have much to re-do to the back neck opening: it is likely the easiest line as it follows the back jabot edge and gently curves to reach point "A" near the neck. For the back armhole, I traced the side jabot edge along the grid line to the underarm point, and from there, I traced a straight line angling towards the "B" shoulder point, allowing myself to create a more pronounced angle (see Figure 22).

Revising the front piece once more, I tried to observe the angle of the armhole of the Kirke pattern piece carefully. As stated before, I am inclined to cut a steeper angle for the front armhole. Knowing that the angle is meant to be slight, I played with the fabric to see how I could accomplish this. One solution we discovered was to push more fabric towards the breasts or centre front to allow for more volume and ease. Doing this allowed me to cut a gentler slope for the front armhole (see Figure 23). Going back to observe Kirke's patterns, we noticed that

the pyramidal-shaped section, with the base at the neck opening and underarm point, is larger in the front pattern piece than in the back, which confirms that more ease in this area has been accounted for. This also explains why the angle at the armhole in front is slight and the one in the back is more pronounced.

When I first draped this piece, it appeared straightforward and I was able to complete it quickly in my initial attempt. However, after reviewing the final product with Bissonnette, it was evident that I had missed certain key points and ended up having to re-drape some areas several times. In the following section, I will discuss in greater depth what we believe to be the major factors that led to these mistakes.

Pattern 3: Solutions and Conjectures

The process of re-draping certain areas alongside Bissonnette proved helpful in identifying important details that escaped my novice eyes. Upon evaluation, we felt that the major factor leading to these mistakes was the extent to which my twenty-first century taste influenced the way I draped and manipulated the fabric. Observing the front and back pattern pieces in Kirke's book, we see two dotted lines that extend from the underarm point to the hemline. These two lines are parallel to one another to create a tube-shaped rather than an "A-line" dress (see Figure 18). When the four rectangular pattern pieces are sewn together they create a three-dimensional tube where the body is placed. Consequently, the foundation for this garment is a straight columnar shape. This is

a more restrictive shape, to my mind, than the possibility of an A-line dress, which the excess fabric in the jabot would have allowed.

During the pilot study, I had made similar realizations regarding the shape of the garment. Despite knowing this, however, I made a personal choice to drape it in a looser and more fluid "A-line" style. I am even seen in the videos stating this decision out loud. Moreover, after making this statement, I am heard saying that draping it this way will make it “look better.” A large part of this decision came from observing photographs and images of the garment, and looking at the ones provided by Bunka where we can see that it is draped in a looser and more fluid way as well.[141] This is an aesthetic choice that is consciously or subconsciously shaped by current fashion trends that dictate what “looks good.” In this exercise, it is evident that the influence of these trends run deep, and it seems even Bunka is a victim to them.

The influence of current fashion trends not only affected the way I draped the general shape of the garment but also in the manner in which I created the armhole. According to Kirke’s pattern, the armhole, in the front, forms a slight angle from the front jabot edge. However, during the exercise, I was inclined to cut a more pronounced angle, perhaps in an attempt to make the more curved armhole that I am accustomed to see in contemporary clothing. The idea of a straight armhole did not look comfortable to me; it looked as if the extra volume of fabric would bunch up at the armpit, resulting in my determination to cut out

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[141] Bunka Fashion College and Vionnet Research Group, eds., 21.

more material in order to free it up. The fundamental idea that I forgot was that there is more than one way to make an armhole. Creating one that is a slit through which an arm can pass is entirely functional and not wrong. Furthermore, in this case, the contour that I was looking for was in fact created through volume rather than a curve or more pronounced angle. Bissonnette pointed out that comfort and tolerance levels for certain aspects of fashion changes through time. What we find comfortable today might be different from what was comfortable in the past or would be in the future.

Draping this garment in a looser and more fluid way did have its advantages. As Bissonnette pointed out, draping it in the initial "A-line" way provided a modification to the pattern, which allowed the dress to fit a body with more curves. As can be seen in the photos of my initial attempt, the dotted side seam line fans out towards the hemline instead of running straight down (see Figure 24). This version creates more room at the hips but still maintains a symmetrical pattern. Therefore, although it is not compliant to Kirke's original pattern, it still produced an aesthetically pleasing product that could potentially fit a wider range of body types.

One of the goals in this exercise was to patch up mistakes with fabric scraps rather than to start again with a fresh piece. The result was a document of the process taken to arrive at a particular solution, and a way to compare a previous solution with a subsequent one. In this particular exercise, we see the difference between the sharper angle, which was initially cut for the front

armhole, versus the gentler one in the second attempt (see Figure 17). Another mistake I made was the reversal of the warp and weft grid when I rotated the pattern pieces on the bias. Instead of rotating the fabric clockwise I had rotated it counter-clockwise. In guessing the direction, of rotation, I had failed to analyze markings on Kirke's pattern that would have prompted me to rotate this in the proper way (see Figure 25). However, after realizing my mistake, Bissonnette assured me that reversing the warp and weft this way should not affect the drape, especially in a smaller scale. The grid lines, in their reversed position, confirm this assumption, as the garment appeared to drape symmetrically.

Pattern 3: Conclusion

In this exercise, because I thought that the pattern was straightforward, I completed my initial attempt rather quickly. However, this was due to the fact that I had missed an important aspect of this project, which was to comply with Kirke's patterns. It was evident that the influence of current fashion trends ran deep; causing me to drape the pattern according to a twenty-first century idea of what is aesthetically pleasing and customary. Consequently, the result of my initial attempt was a garment that was loose and fluid rather than tubular, and with armholes that have a deeper curve rather than a slit-like opening. Re-draping some of these elements alongside Bissonnette allowed for an objective eye to point out my biases, forcing me to fight and control them in order to drape the garment according to the original design. Once made aware of this, I could, and should keep this in mind when draping the next garment. In this exercise, I also retained

the goal of patching up mistakes with fabric scraps rather than starting anew. This proved helpful in allowing me to document my progress and allowed for a way to directly compare my old solution with the new one. Lastly, by seeing that Bunka make a similar mistake as what I did, I can imagine that both novices and experienced sewers are likely mislead by the apparent simplicity of this piece. In the process, they might miss important lessons to understanding the Vionnet mind-set.

The Players - Layers of Influence

As discussed, it is important to tie the various influences from "The Players" to the conclusions made in this pattern in order to see the impact they had. In this exercise, I allowed my twenty-first century taste to dictate how I draped the pattern, which caused me to stray from Vionnet's initial intention and from the way Kirke drew the pattern. However, the way the garment was represented in Bunka's photographs seemed to affirm my decision to drape it in a twentieth-century way. This layer of influence encouraged a decision that led to me not questioning the appropriateness of it. Consequently, from this exercise, it is evident how important it is to question our sources and to analyze their content more carefully. Furthermore, it showed how Bissonnette's experience enabled her to see past her biases to help guide me in the right direction.

PATTERN 3: FIGURES 12 TO 25

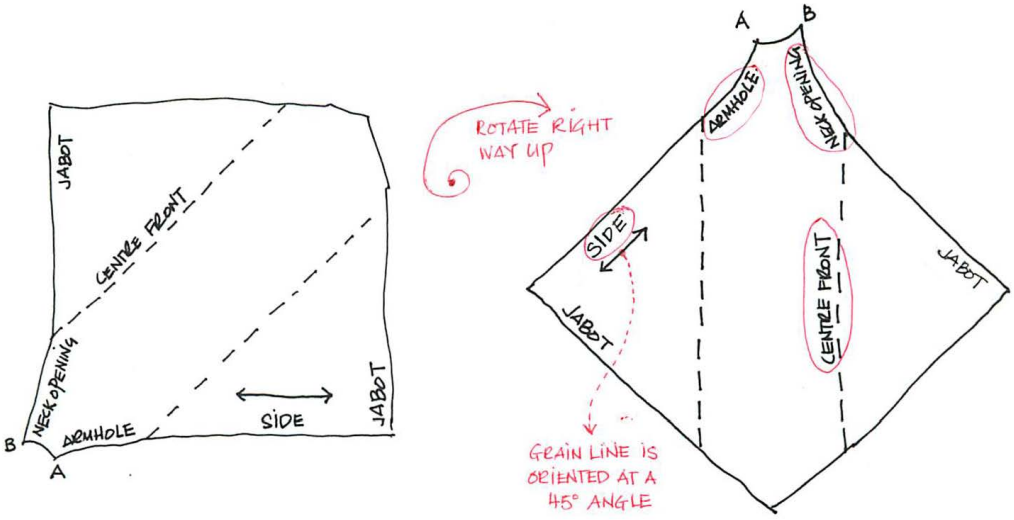


Figure 12: When we rotate the pattern from the way it is found in the book (left) to the way it will fall on a body (right), the markings match the appropriate parts on the dress form. We can see that the grain line is now placed at a forty-five degree angle. This pattern, while cut on the grain, is hung on the bias.

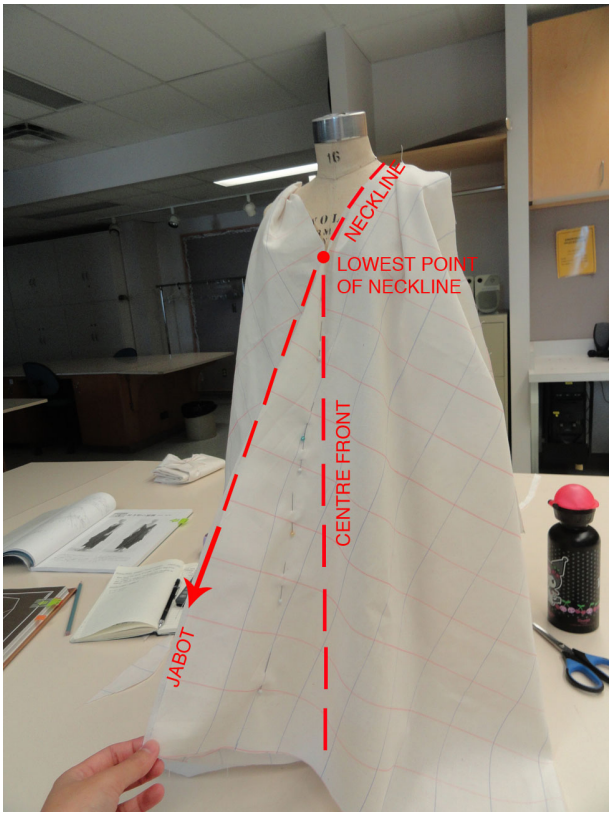


Figure 13: The "V" neckline begins from a point on the centre front. Mark how low you want this point to sit on the dress form and from here the jabot should hang loosely, forming a portion of the skirt.

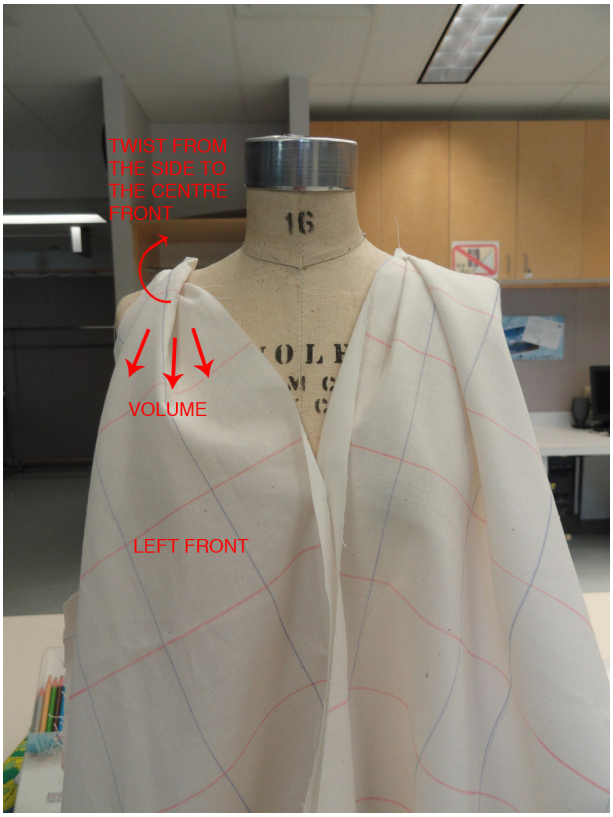


Figure 14: Twisting the left front shoulder section from side to centre front seems to provide volume for the breasts.

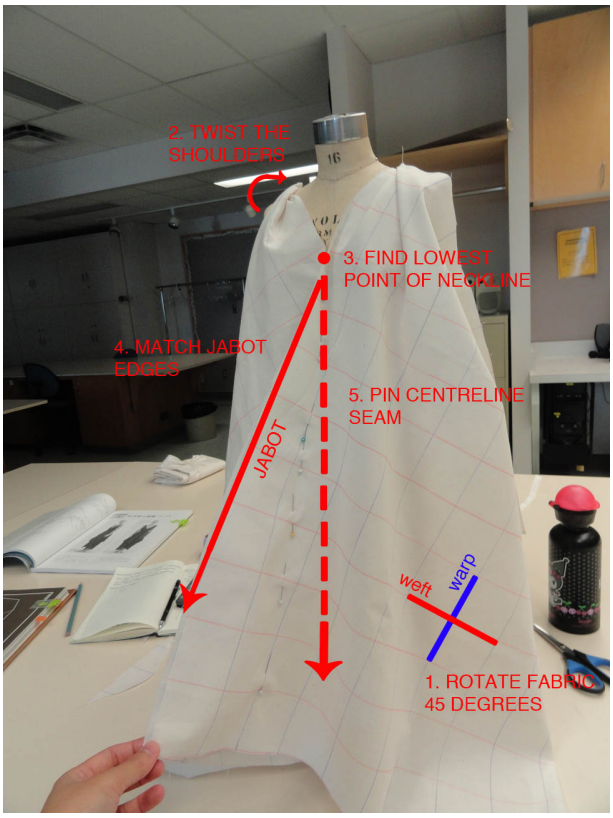


Figure 15: General steps for draping the pattern pieces.

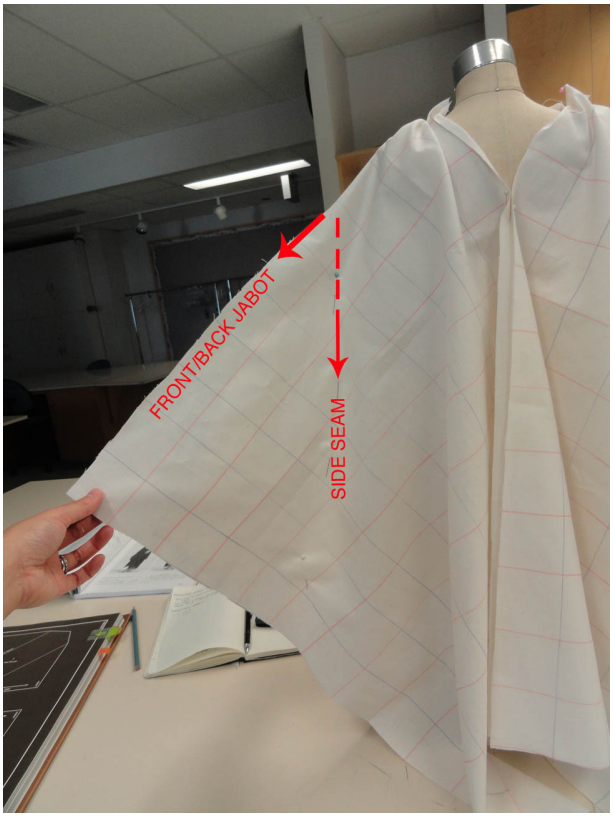


Figure 16: To connect front and back, patterns match front and back jabot edges together and pin side seams

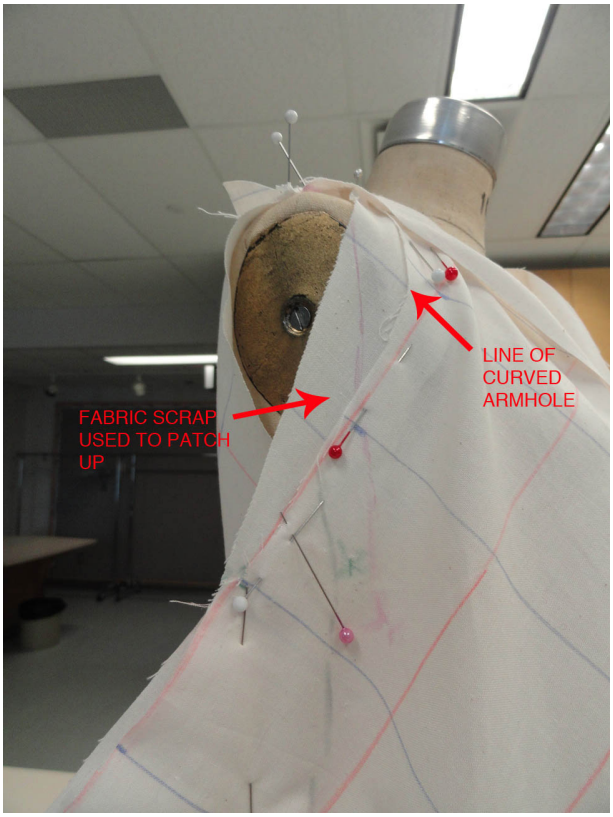


Figure 17: Use of fabric scraps to patch up the curved armhole instead of cutting a brand new piece

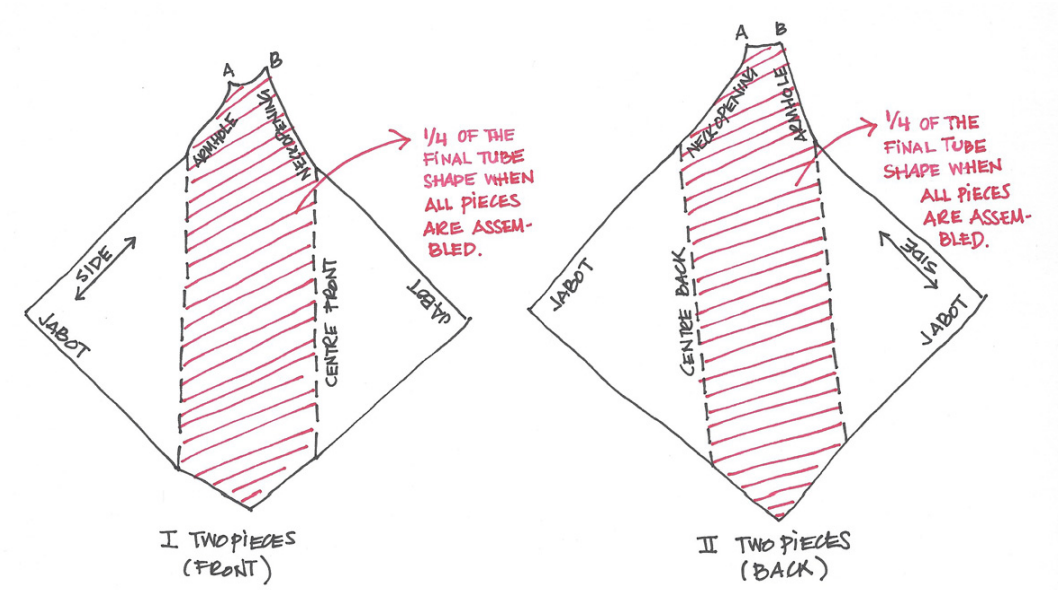


Figure 18: The foundational shape of this garment is a tube created by assembling the 4 parts.

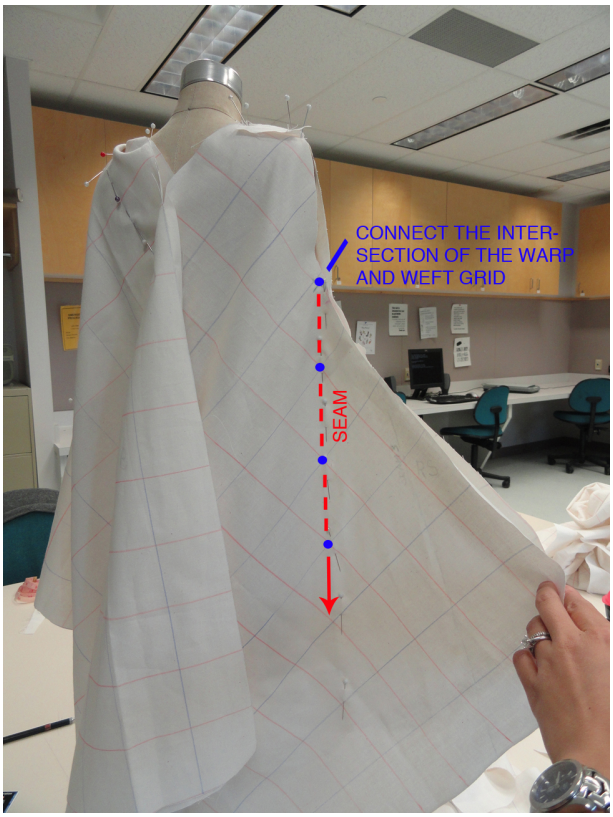
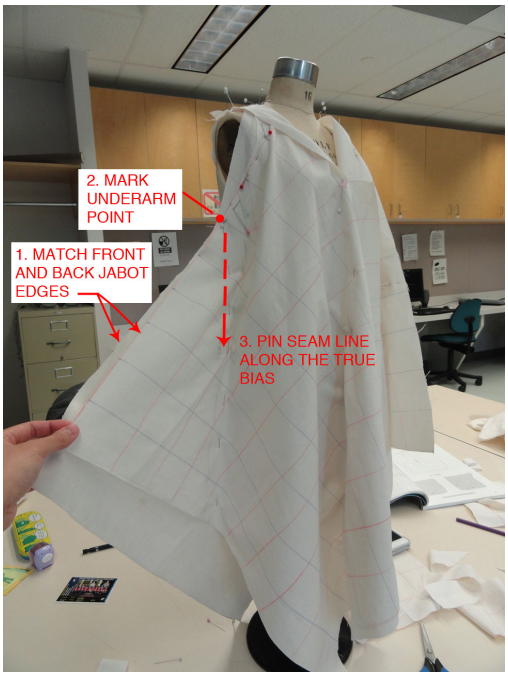


Figure 19: Pin the seam line on the true bias. Find the true bias by connecting the intersection of the warp and weft grid.



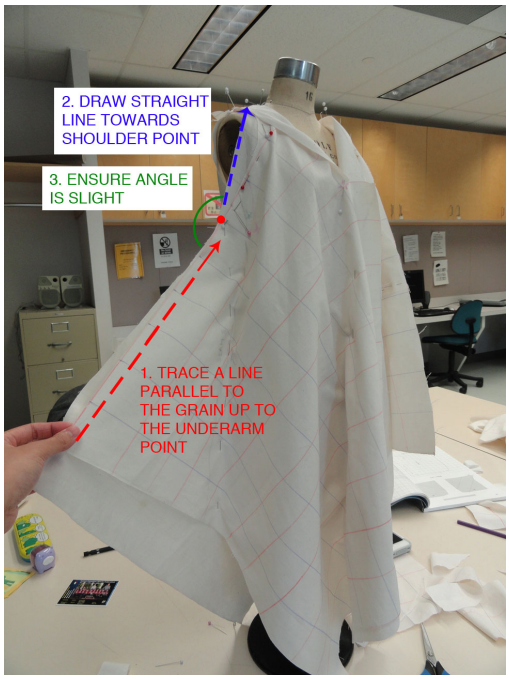


Figure 20a (left): Steps to connect the front pieces to the back. Figure 20b (right): Steps to shape the front armhole with a straight line and slight angle.

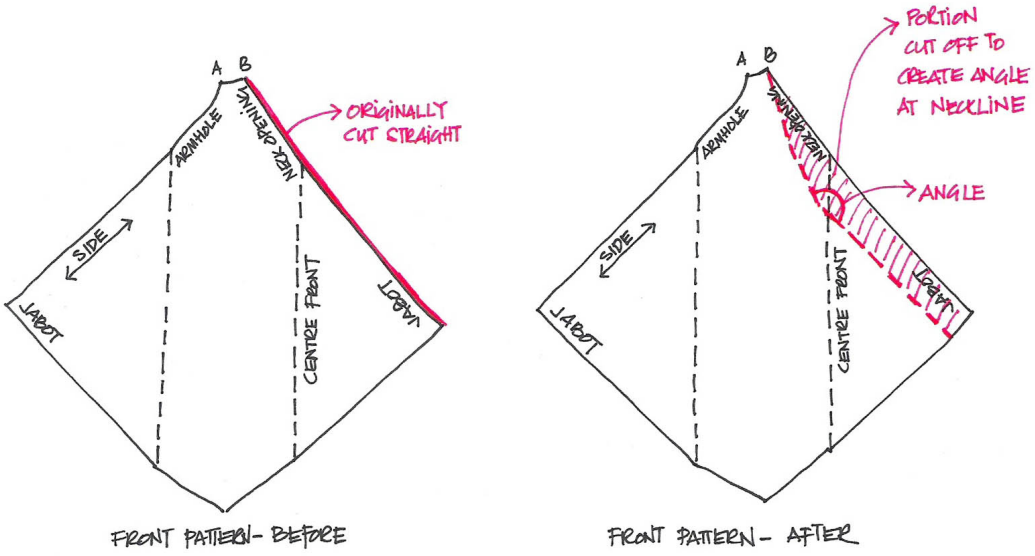


Figure 21: To cut the angle at the neck opening from the fabric piece that we have already cut, we can remove it from some portion of the jabot.

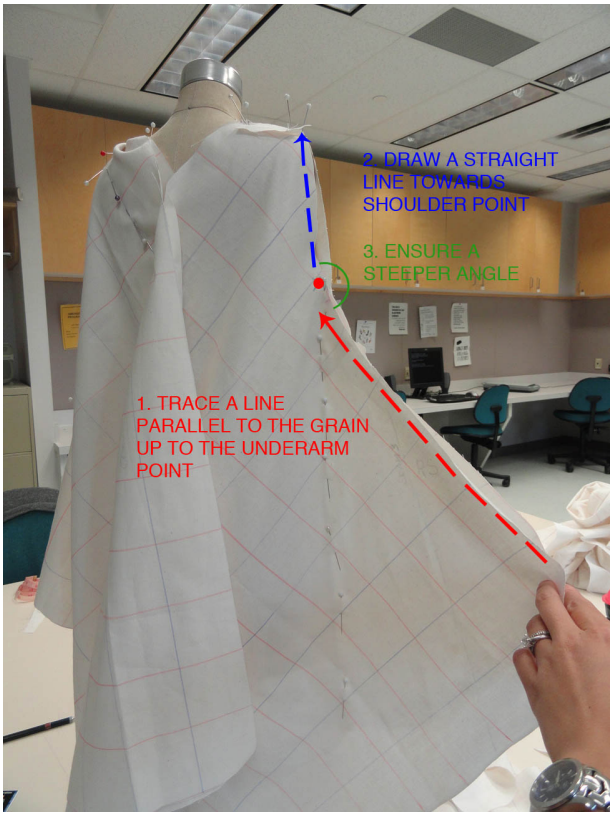


Figure 22: Steps to shape the back armhole with a straight line and more pronounced angle.

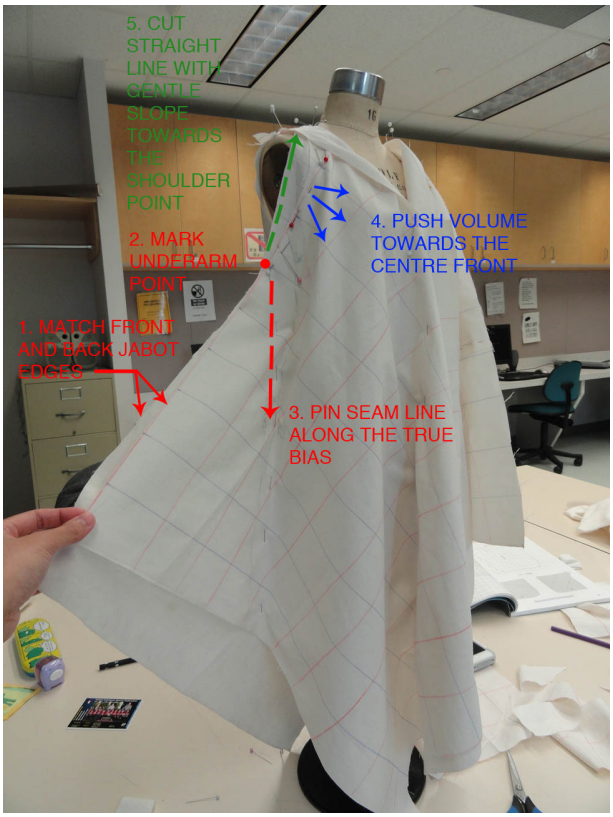


Figure 23: Pushing extra volume of fabric towards the centre front allows a gentler slope for the armhole

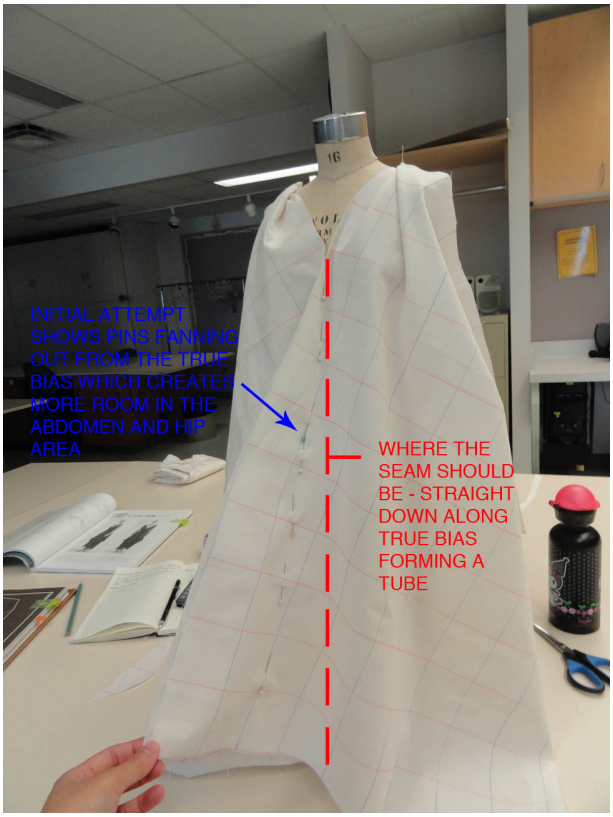


Figure 24: Creating a seam that fans out form the true bias can create more room in the abdomen and hip area, but that is not how the pattern is designed.

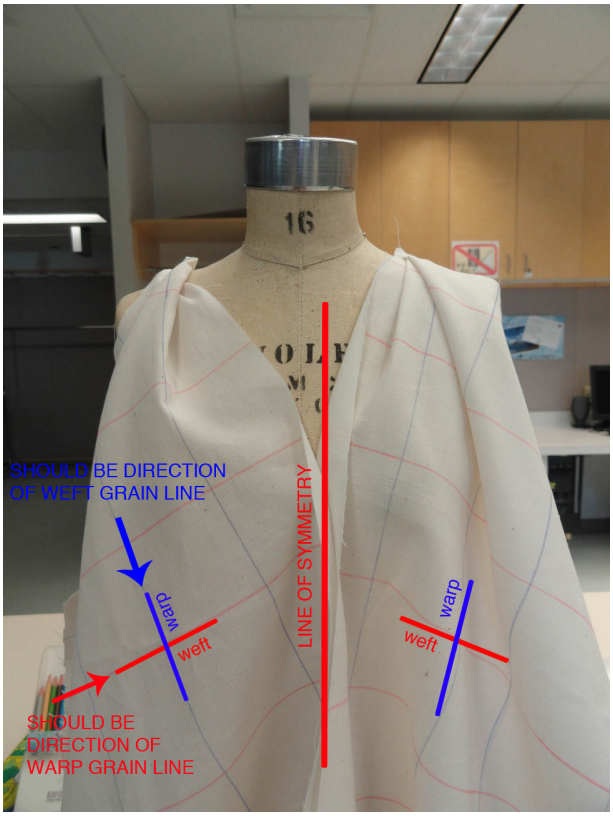


Figure 25: In this exercise, the orientation of warp and weft was reversed. Warp should have been weft and vice versa. However, the drape of the fabric was not affected provided both sides were kept symmetrical.

Pattern Analysis: Pattern 14

Pattern 14: Reflexive Methodology

Applying Lessons

One goal that has evolved in this project is to take lessons from one exercise and apply it to the next with the intention of building upon that knowledge. In the previous exercise, it was evident that I was heavily influenced by current fashion trends. As a result, I draped the pattern according to a twenty-first century idea of what is aesthetically pleasing. Therefore, in the subsequent exercise, I will be more diligent in draping the garment according to Kirke's depiction, as one of the major goals of this project was to examine her methods.

Pattern 14: The Draping Process Through My Eyes

How a Novice Worked Through the Process

This is the garment I had draped in the pilot study; therefore, I was more aware of where some of the pitfalls would be. This garment is particularly unique in both how time-consuming it was to drape**,** and how many discrepancies there were between the illustrations and the application. It was the basis from which the idea for this project developed. Consequently, it was an ideal piece to test one's biases and practice resisting them; even though I knew what the outcomes would be, I still had to drape as if I did not. Draping the same exercise again can provide an opportunity to discover new solutions that had not been previously considered.

The main strategy I used to drape this piece was similar to the one I used in the previous exercise. I kept the instructions from Kirke's "How to Make a

Toile" in the back of my mind, and used photographs and images from the book as a guide, and I examined the flat-patterns depicted in Kirke's book. I also used Bunka's gridlines to estimate the approximate size of the rectangular piece of fabric I needed for each piece.[142]

Looking at the front pattern piece "I FRONT SKIRT," it appears to be one piece that has three portions, roughly corresponding to the top, middle and bottom parts of the body;[143] more specifically, the upper abdomen, lower abdomen and skirt. In the previous exercise, I had reversed the direction of the warp and weft grid lines, turning the pattern pieces counter-clockwise instead of clockwise. Therefore, learning from this, I made sure to take particular note of the double-headed arrow on Kirke's patterns that indicate the direction of the warp grain line. Taking this step made me discover something I had missed in the pilot study, which is, that the warp grain line for the skirt runs in the opposite direction to the upper and lower abdomen. This indicates that the skirt cannot be cut as one piece with the rest. It has to be conceived of as a separate pattern piece (see Figure 26).[144]

I began by draping the upper and lower abdomen, which appears to be one piece with an arched horizontal dart below the bust. By looking at the double-

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[142] Bunka Fashion College and Vionnet Research Group, eds., 76-77. Kirke's pattern pieces in front appear to consist of the top, middle and bottom portions in one piece. However, Bunka shows all three portions as separate pieces. In order to approximate the area of fabric I needed I added the length of all three portions.

[143] Kirke, *Madeleine Vionnet*, 88.

[144] Although knowing that the skirt was a separate piece, I did not immediately cut it out. As the dress form had a relatively flat lower body, it did not seem to interfere with draping the upper and lower abdomen combined with the skirt. However, I will later find that removing the skirt portion will make the process more manageable in general.

headed arrow on Kirke's pattern, we know that this piece has to be turned clockwise so that the warp grid lines run diagonally from top right to bottom left (see Figure 27). I located the forty-five degree angle on the fabric's grid and pinned it to the centre front of the dress form. Observing the photographs and images in Kirke's book, the upper abdomen piece appears to fit smoothly over the bust without a need for breast darts.[145] Therefore, I began to guide the fabric over the dress form's upper abdomen and pinned it at the shoulders. As the section over the chest is relatively flat, this part was fairly easy to pin. However, I had more difficultly guiding the fabric smoothly over the bust, and wanted to add darts. This was a result of having used this solution during the pilot study. To be true to Kirke, I removed them and searched for an alternative. Looking at Kirke's scheme, I observed the arched horizontal dart between the upper and lower abdomen (see Figure 28a). Because there is no scale on Kirke's patterns, it is difficult to determine where this dart should sit on the body, but it does not appear to go close to the bust's apex and thus cannot generate fit for the breasts. It appears to be above the waist at the upper abdomen. Guiding the fabric at the upper and lower abdomen, an excess of fabric can form a dart at the waist (see Figure 28b).

I continued to guide the fabric over the bust, but found it difficult to do so as there was excess fabric at the sides of the bust and directly below. I tried to stretch the fabric a little bit but it seemed to naturally form darts, as it did for my

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[145] Ibid., 89.

pilot study. Having found no other alternative, I formed one at the sides of the bust and another directly below (see Figure 29a). I was then able to push any excess fabric that was leftover into the arched horizontal dart. Upon observing the placement of this dart, it is evident that it did not comply with Kirke's pattern. According to Kirke, this dart forms an arc that peaks at centre front below the breast and slowly curves off into the side seam close to the waistline. My work was quite different; in addition to the two darts at each breast, the ends of the arched horizontal dart stopped short of the side seam at the waist. Instead of terminating at the waist, the dart tapered off further below at the hip (see Figure 29b). This was the best I could do to have the bodice sit smoothly on the dress form. I then moved on to shape the armhole.

The combination of the armhole and angled side seam is a zigzag segment that starts from the shoulders on down (see Figure 30a). This segment can be created using the grid lines drawn on the fabric that falls on the bias. Looking at the right front, we can see that the line coming from near the shoulder point towards the centre front is almost parallel to the warp. It then forms a near right angle towards the back that parallels the weft (Figure 30a and 30b). In order to determine how far the front pattern extends to the back, I looked at diagrams and pictures in Kirke's book and drew an estimate. Another way to gauge how far to cut would be to use Bunka's grid lines and scale it from there. I decided to sketch the armhole shape on the fabric first before cutting it.

The next steps involved finishing the neck opening in order to map the armhole and side seam. Cutting the neck opening allows the fabric to sit on the dress form more smoothly, thus enabling me to cut the armhole more accurately. The V-shaped neckline has angled edges that run parallel to the warp and weft grain lines, so we can once again use the blue and red grid lines drawn on the fabric as a guide (see Figure 31). After cutting the neckline, I then cut the front armhole. The next step I took was to cut the skirt from the front. This step removes volume and weight from the front bodice and makes the bodice more manageable as I shifted to interlock its sides with the back bodice piece. Next I tackled draping the back bodice labelled as pattern piece "III." I first observed the markings on Kirke's pattern in order to determine the direction of the grain. We can see that the double-headed arrow, which indicates the orientation of the warp grain is at a forty-five degree angle; therefore, the back bodice is cut on the bias. Looking at the back bodice pattern in Kirke's book, we can also see that it dips into a point at the centre back below the waist. In examining photographs of the garment in Kirke's book, I found that this point seems to line up approximately at the hip line. I placed the corner of a rectangular piece of fabric roughly at this line and began to guide the forty-five degree angle of the grid along the centre back to the neck. As the back of the dress form is relatively flat, it was not a challenge to guide the fabric in this area. However, the section between the waist and hip did not sit as smoothly as it shows in Kirke's photographs. Excess material in the space is created because of the concave curve at the waist (see Figure 32a). I

began to move the back bodice up and down to see if I could find a point where it would sit more smoothly, and it seemed to do so when the point reached a level halfway between the waist and hip level (see Figure 32b).

After pinning the back bodice at the appropriate level, I began to cut the shape of the back armhole. Looking at Kirke's pattern marked "III," we can see that one segment marked "G" meets another to create a point parallel to the warp grain. We can also see that the segments marked "E" which form the side seams interlock with the front bodice.[146] Where they are first connected to "G," the "E" segments are somewhat perpendicular. In order to interlock the back and front pieces more accurately, I placed the fabric I had pinned for the back bodice over the front. Because I could feel and see the pattern in the front, I could trace the exact shape that I needed in the back (see Figure 33a). I added a seam allowance, which let me pin the pieces together (see Figure 33b). After matching and tracing the segments that interlock, I was able to use them as a point of reference to cut the back armhole and neck opening.

The skirt sections are the final two pattern pieces that need to be draped and pinned to the dress form. In the beginning, I draped the front skirt while it was connected to the front bodice. We know from looking at Kirke's pattern, that the front skirt is a quarter-circle, cut on the bias, with the side seams parallel to the warp on one side and weft on the other (see Figure 34a). We can use the grid lines drawn on the fabric as a guide to cut the side seams. As for the curve at the

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[146] We know that this segment interlocks with the front bodice because there is a corresponding segment on the front bodice that is also marked "E." This indicates that these segments on the back and front should match when sewn together.

hemline, I sketched its shape freehand using Kirke's pattern piece and images as guides. The front skirt was thus relatively straightforward to drape on the dress form as the lower body has no curves and the fabric sits flatly without much effort (see Figure 34b). In draping the back skirt, I noticed that Kirke's pattern is nearly semi-circular. Therefore, I used the piece I had cut for the front skirt, which was in the shape of a quarter-circle, and mirrored it to create the semi-circle piece for the back skirt. I then cut a small slit at centre back. When spread open, the raw edges of this slit form segments that connect to the two "G" segments of the point at the bottom of the back bodice (see Figure 35). After pinning the back skirt to the dress form, I called Bissonnette to evaluate what I had done and analyze any areas of concern.

Corrections and Modifications - Draping with Guidance

In this draping exercise, Bissonnette noted similar pitfalls to those I had encountered in the preceding one. That is, I did not bring certain elements close enough to the way Kirke had presented them in her patterns, despite being more aware of the need to do so. The first element she noticed was the shape of the arched horizontal dart. In Kirke's pattern, this dart forms an arc that peaks at centre front and slowly curves off into the side seam. As I mentioned previously, the ends of my curved horizontal dart stopped short of the side seam at the waist. Instead of terminating at the waist, my dart tapered off further below at the hip. Since the bodice sat smoothly on the dress form with the dart shaped this way, I had decided that it was an adequate application. The second element that did not

conform to Kirke's work was the darts beneath and at the sides of the bust. I inserted these darts because it allowed the bodice to sit smoothly over the dress form. Kirke's patterns do not show these darts, but images of the garment in her book still show the bodice sitting smoothly without any creases or excess fabric. With the guidance of Bissonnette, I explored other techniques that could help bring the arched horizontal dart closer to how Kirke had shaped it, and create a smooth bodice without adding bust darts.

In order to re-do the upper abdomen piece, the first step I took was to remove the darts beneath the bust. In the images of the garment in Kirke's book, the bodice sits on the body in a smooth and flowing manner. Removing these darts leaves excess fabric that can be directed beneath the bust, but contributes to making the garment look less structured. The excess could be directed elsewhere, such as the armhole or side, but it would affect the geometry of the lines along the fabric's grid, which is an important aspect of this garment. To absorb some of the excess fabric, I moved the arched horizontal waist dart up to be closer to the bust. The placement of the dart that I had originally created was based on where an excess of fabric would naturally occur when guiding the fabric over the dress form. In order to make the piece conform to Kirke's pattern, a way had to be found to "force" the excess of fabric to the desired pattern shape without creating a dart. To accomplish this, Bissonnette suggested using a couture technique where I would pin the fabric, stretch it, ease a few millimetres towards the pin and place a new pin close to the previous one. With steaming and hand stitching, the excess

can be absorbed. It is a more arduous and time consuming process as the fabric needs to be stretched and pinned a little bit at a time in order to eventually accommodate the excess volume smoothly. The shape that we achieved following this method provides a smoother arc that curves towards the side seams closer to the waist (see Figure 36a and 36b).

Stretching and pinning the fabric at the curved horizontal dart absorbed enough fabric that I was able to remove the dart at the side of the bust. There was still some excess fabric remaining underneath the bust that used to be in a second dart. This could be pinned and stretched using the same method. It can be manipulated using only steam heat from an iron. Applying steam heat can distort the fabric and make it more pliable. According to Bissonnette, this is why Kirke, in her work as a costume conservator, never steamed bias cut garments for display. She preferred ironing the garment. Consequently, in applying steam heat and stretching the fabric repeatedly, the upper abdomen piece can eventually be shaped to the contours of the bust. Using these techniques, one can get closer to Kirke's patterns.

Another area I struggled with was the point at the back bodice. As described in the previous section, I had shifted it higher so the extremity ended below the waist instead of at the hip, as shown in Kirke’s book. Bissonnette commented that placing it at a slightly higher level is probably acceptable because the weight of the back skirt will naturally stretch this point downwards once gravity does its work. This might especially be the case with the silk satin-backed

crêpe that the original garment was made from, as it is a stretchier and more pliable material. Nonetheless, the stretch of the grid could also allow the point to be brought lower as the contractibility of the bias grid would likely help a longer piece adhere more closely to the buttocks.

From observing the back bodice, Bissonnette noticed that the back skirt was cut and hung in the wrong orientation. As previously described, the back skirt is practically a semi-circle with a small slit at the centre back upper section. This slit is perpendicular to the diameter of the half circle. I had cut this line so that it was parallel to the grain. However, Bissonnette explained that the diameter line of the semi-circle is in fact cut on the bias. I had become so accustomed to cutting on the grain and then hanging the pattern piece on the bias that I automatically applied this method. To demonstrate the change, Bissonnette, decided to make a small-scale reproduction of the pattern piece on paper and sketched how the grain lines should appear. In order to determine the direction of the grain, we looked for the double-headed arrow on Kirke's flat-pattern, which indicates the direction of the warp.[147] We then drew grid lines that are parallel and perpendicular to it, representing the warp and weft grain lines respectively (see Figure 37). From this, we could see that the diameter line of the semi-circle is cut on the bias rather than on the grain. Rather than re-cutting the fabric, we decided to sketch the proper orientation of the grain lines on the back of the original piece for this exercise. It would then act as a visual representation of how it should be cut and hung. This

[147] The fabric is also pieced together along the warp grain near the hem on one side. This makes the grain line more apparent.

way we could have a direct comparison of the right way versus the wrong (see Figure 38a and Figure 38b). I raised the concern that the drape of the skirt will not be accurate as we did not truly cut and orient the fabric the way it should be. Bissonnette explained that because the scale of the garment is small, the difference in the drape would be slight. For the purpose of this exercise, it is better to have a record of the mistake and the solution taken to correct it, than eliminating the mistake entirely.

When connecting the back skirt to the back bodice, it is evident that many joint edges were on different grain directions. More specifically, the back skirt diameter line is divided in three essential segments that are doubled to cover the left and right side of the skirt. Segment "A" on the back skirt falls on the bias and gets assembled to segment "A" on the front skirt which falls on the grain or cross grain (depending on its side) (see Figure 39). Segment "C" on the back skirt is also within the bias spectrum and gets assembled to segment "C" on the lower abdomen, which falls on the bias spectrum. The back skirt slit creates segments "G" that are cut on the bias, and assembled to the back bodice "G" segments cut along the grain (see Figure 40). Looking at the "E" segments that will become the bodice's side seams, we can also see that they are in opposing directions.

In the previous two garments that I draped, the pieces were all stitched along the same grain direction. This is the first pattern I tackled where most seams are in contrasting directions. Bissonnette recalled that Kirke had mentioned to her that connecting bias pieces to non-bias pieces would distort over time and can

only work if it was pre-stretched beforehand.[148] Once again, because this exercise is conducted at such a small scale and will not be left on the dress form for an extended period, it will not affect the results. Nonetheless, the interaction between pieces that are attached on different grain directions is another area of unorthodox research that might be worth investigating in the future.

Before removing the draped pattern pieces from the dress form, I had to mark the pieces so that they can be reassembled later on. In the previous exercises, I had been marking the edges that matched together with an angled point in the shape of an arrowhead. In addition to this symbol, Bissonnette suggested to draw a series of small dots along the seam line to indicate where the pattern edges meet. This will allow a more accurate positioning of the pattern pieces when reconnecting them, as pieces cut on the bias may stretch and pieces on the grain will not (see Figure 41).

As in the previous exercise, there were various elements in this piece that I did not drape exactly conforming to Kirke's patterns. I did not spot these aberrations while I was draping, but Bissonnette was able to point them out when she came to examine my work. In the following section, I will explore some of the possible issues that may have affected the results.

PATTERN 14: SOLUTIONS AND CONJECTURES

Upon evaluation, I found two major factors that affected the results of this draping exercise. The first factor stems from my novice background and lack of

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[148] Kirke, *Madeleine Vionnet*, 87.

extensive training in garment construction. I relied on mainstream tools and techniques to find solutions because it was the only method I was familiar with. The second factor comes from the experience of having draped the piece once during the pilot study. I was less open to exploring other solutions because I was influenced by what I had concluded before.

Vionnet undoubtedly mastered and employed various couture techniques. Therefore, her staff would have known how to stretch the fabric in order to fit the garment without using darts. Due to my lack of knowledge, I had not considered couture techniques as a possible solution. I was relying on methods that are familiar to me, which are those gained from commercial garment construction. However, even with more sewing experience, one may not have necessarily turned to couture techniques as commercial or mass-produced garments seem to be more at the forefront in the fashion industry. Consequently, the methods of construction for contemporary clothing will be more commonly used and taught. Couture techniques are also based on methods achieved by hand rather than by machine. As commercial and mass-produced garments are mostly made by machine, we are more accustomed to seeing fitting and finishing techniques that are achieved by this method. As a result, our minds may automatically turn to these to provide a solution. Over time, as we begin to turn more and more to our generation’s techniques, we may begin to assume it is the only source of knowledge. This is evident in Bunka’s book, as they had provided instructions to add darts at the sides of the bust, which did not conform to Kirke's work. Bunka’s

book was intended to teach students pattern-making and sewing techniques. Therefore, it is clear that they have resolved to teach their students modern day solutions.

Another factor that I did not consider was the type of fabric I used compared to what was used in the final product during Vionnet's time. I used a medium-weight cotton muslin, whereas the garment photographed in Kirke's book is made from silk satin-backed crêpe. Silk satin-backed crêpe is a more supple fabric that can probably be manipulated and shaped by stretching much more easily. Furthermore, because of its properties, it can probably contract and expand more easily to the contours of the body. Once again, this oversight was most likely due to my novice background and reliance on mainstream methods and materials. In commercial sewing, I am more accustomed to working with everyday fabrics such as cotton rather than finer ones like silk. Therefore, my mind naturally turned to solutions that work with the material that I am most familiar with.

In addition, another factor that can affect the outcome would be the silhouette of the dress form. The dress form that I used is rooted in the 1940's and is shaped according to the ideal silhouette of that time; that is, with square shoulders and a pointy bust. The ideal silhouette in 1932 was a lot softer, which meant that the dress might not have needed breast darts as it accommodated a body that had tried to flatten the bust in the 1920's and early 1930's. On the other hand, as suggested by Kirke herself during a phone conversation, this couture

dress was likely custom made for someone with a flatter bust.[149] As Vionnet ran a couture house, a lot of the garments would have been made to suit the client specifically. When we look at the patterns in Kirke's book, we presume they are all standard size and not individually custom-made for unique individuals of all shapes and sizes.

Having completed this exercise during the pilot study, I knew what some of the problems would be and how I could resolve them. This helped in terms of feeling less inhibited because I already knew what to expect. However, I found that it also hindered me because I was influenced by the solutions I had previously used. As a consequence, I was not as open to exploring other options or as inclined to experiment. This could be one reason why I resolved to create bust darts rather than playing with the fabric to see how far I could go without them. Furthermore, this could be the reason why I assumed the back skirt was cut on the grain rather than the bias. I had become so accustomed to cutting pieces on the grain that I automatically applied this method without fully analyzing Kirke's pattern; it appears to be a continuing problem. One of the goals of this project is to take what I learned from one exercise and apply it to the next. This can be extremely useful in building knowledge and avoiding past mistakes. On the other hand, I have discovered that it can also act as a dogma, influencing what solutions we choose to explore and how far we might decide to take them.

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[149] Betty Kirke, interview by author, phone conversation, January 29, 2010

PATTERN 14: CONCLUSION

In this exercise, as with the preceding one, I finished draping the garment on my own but required the guidance of Bissonnette to bring certain elements closer to Kirke's patterns. Despite being more aware of the need to conform to Kirke's patterns, I was still quick to utilize methods and solutions that were more familiar to me, rather than exploring new ones. This can be due to my limited background and therefore, a reliance on a smaller repertoire of garment construction knowledge. Shaping the front bodice without a dart, as well as creating a curved horizontal dart with a specific arc, required an understanding of couture techniques that I did not have. Furthermore, I was under the influence of solutions I had already applied. As in the case of the back skirt, I automatically cut the straight edge of the semi-circle along the grain rather than the bias, as this was the method I was accustomed to from the two previous exercises. Therefore, I needed to apply what I learned in the preceding exercises but also keep in mind that I need to push the boundaries of what I had discovered.

The Players - Layers of Influence

In this exercise, the one layer of influence that had a large impact is my own skill set. I have a limited background in garment construction and relied on a smaller repertoire of construction techniques. Once again, I needed the help of Bissonnette, who has more experience, to find new solutions. This shows how Vionnet's designs and patterns possess a level of complexity that novice learners

may find difficult to grasp without some assistance from more experienced teachers.

PATTERN 14: FIGURES 26 TO 41

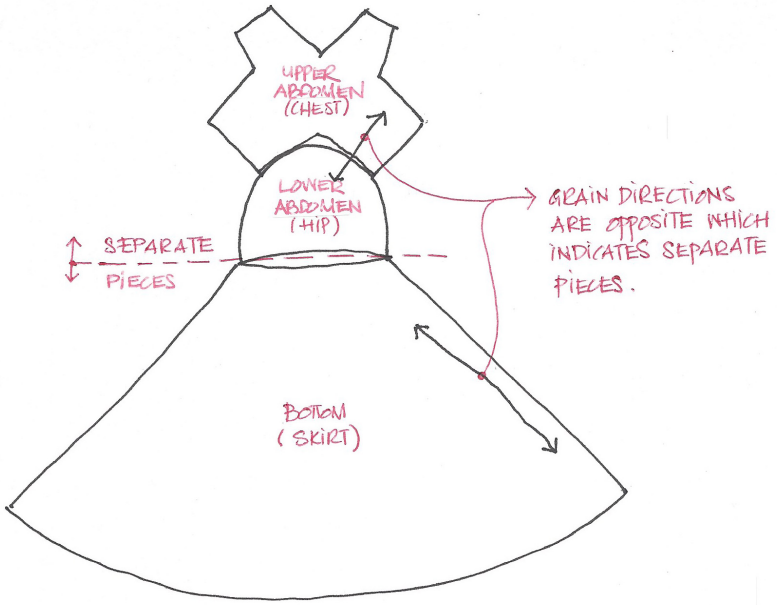


Figure 26: The grain direction of the skirt runs in the opposite direction to that of the upper and lower abdomen. This indicates that the skirt is a separate piece from the rest.

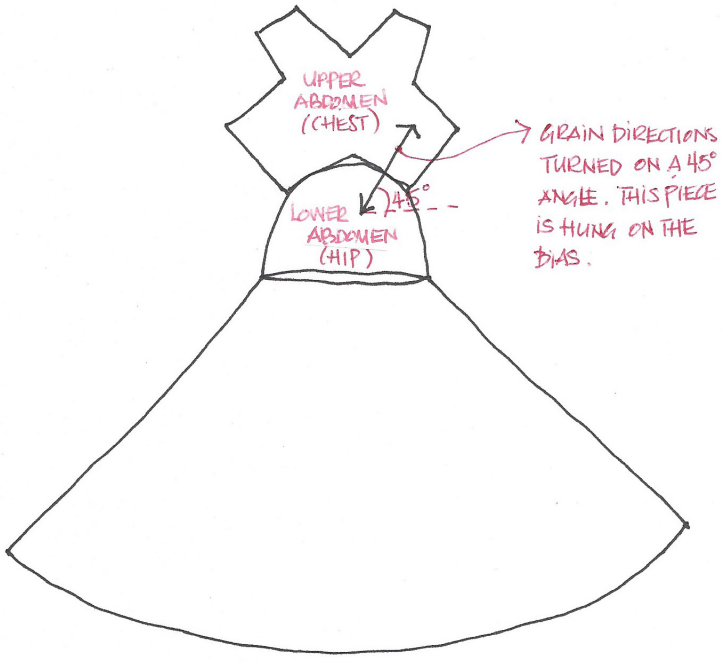
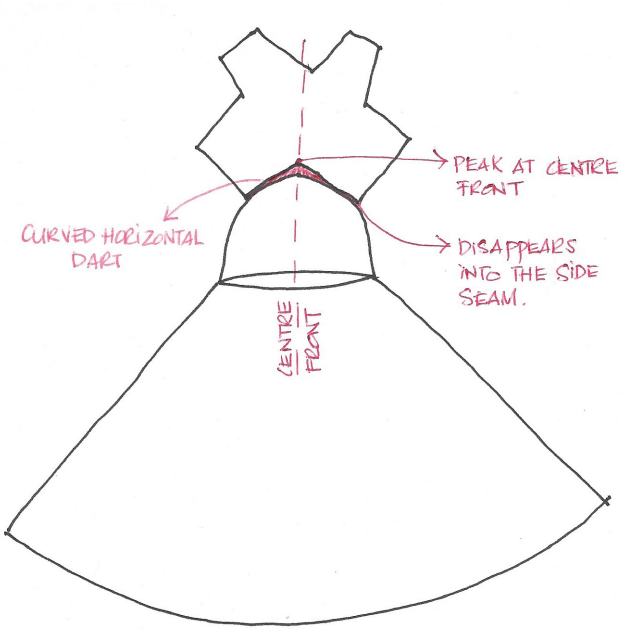


Figure 27: The fabric for the upper and lower abdomen hangs on the bias, meaning that it must be rotated so that the grain lines are at a forty-five degree angle.



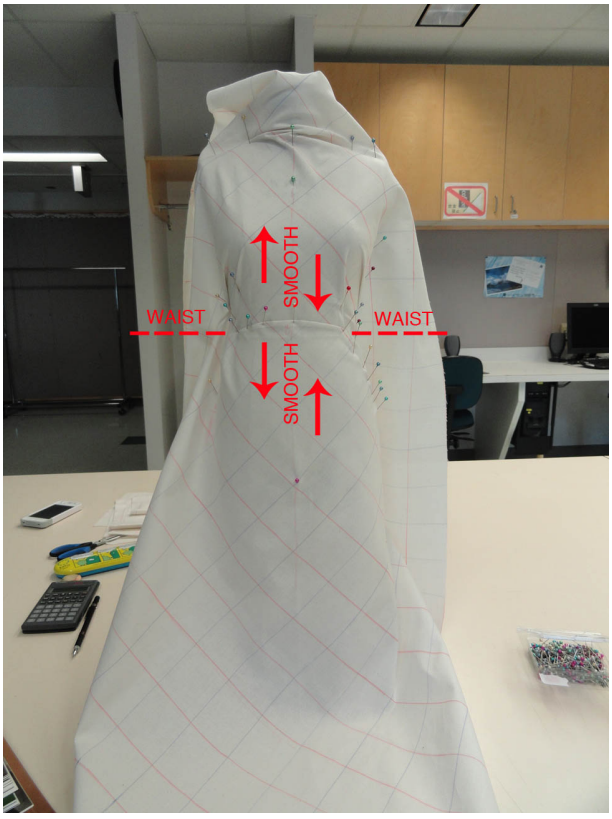


Figure 28a (top): Arched horizontal dart between upper and lower abdomen. It is shaped like an arc that peaks at centre front and tapers into the side seams. Figure 28b (bottom): By guiding the fabric a horizontal dart forms naturally at the waist.

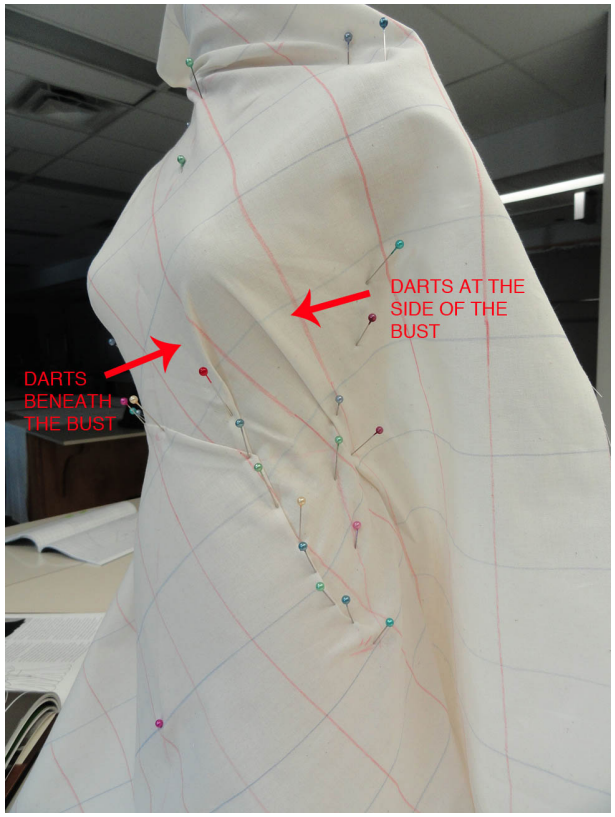


Figure 29a: Bust darts formed at the sides of the bust and beneath in order to accommodate the excess fabric.

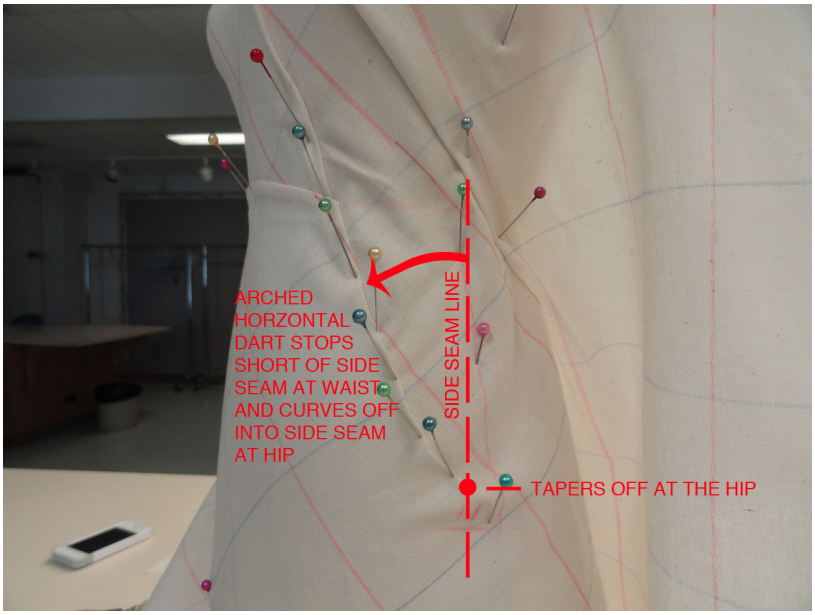
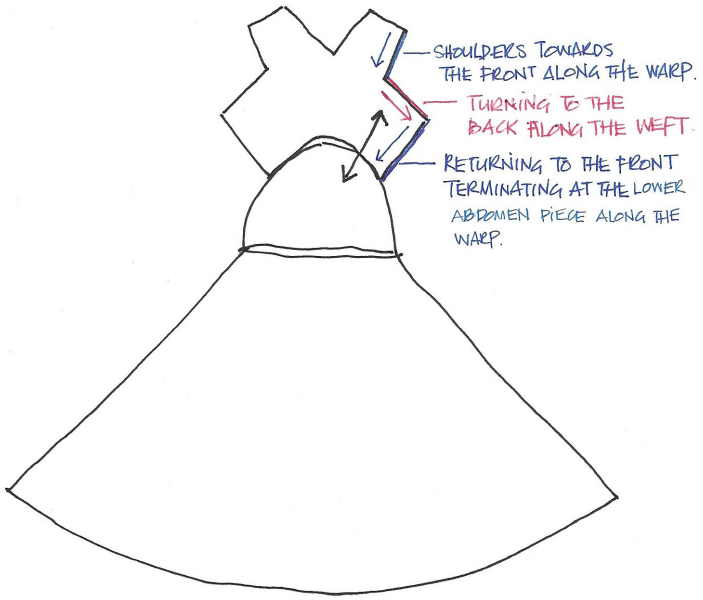


Figure 29b: In comparison to Kirke's pattern, the arched horizontal dart I formed stopped short of the side seam at the waist, and instead, tapered off further below at the hip.



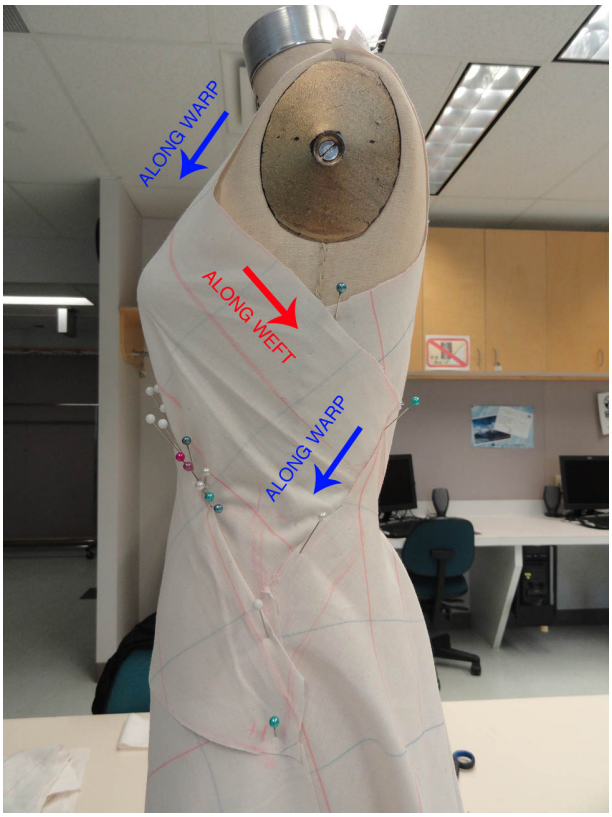
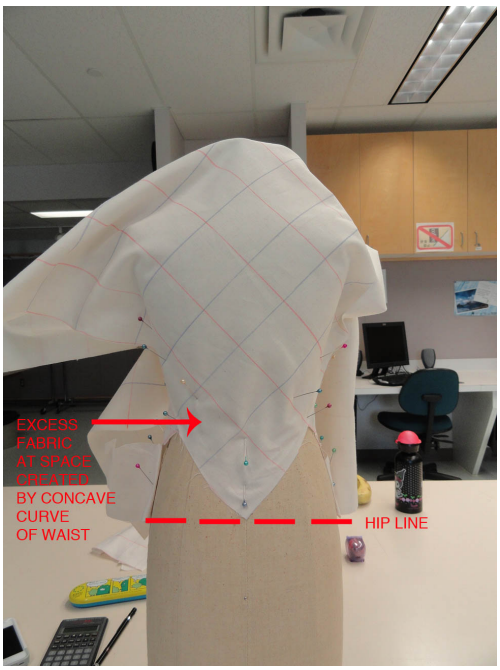


Figure 30a (top) and Figure 30b (bottom): The zigzag line that starts near the shoulder point turns to the centre front almost parallel to the warp grain, turns towards the back almost parallel to the weft, and returns towards the front parallel to the warp, terminating at the lower abdomen piece along the warp.

Figure 31: Shape of the "V" neckline where the angled edges run parallel to the warp and weft grid lines.



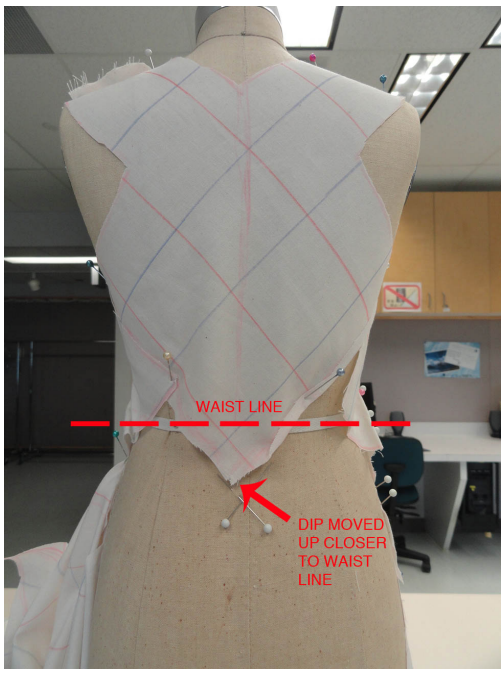
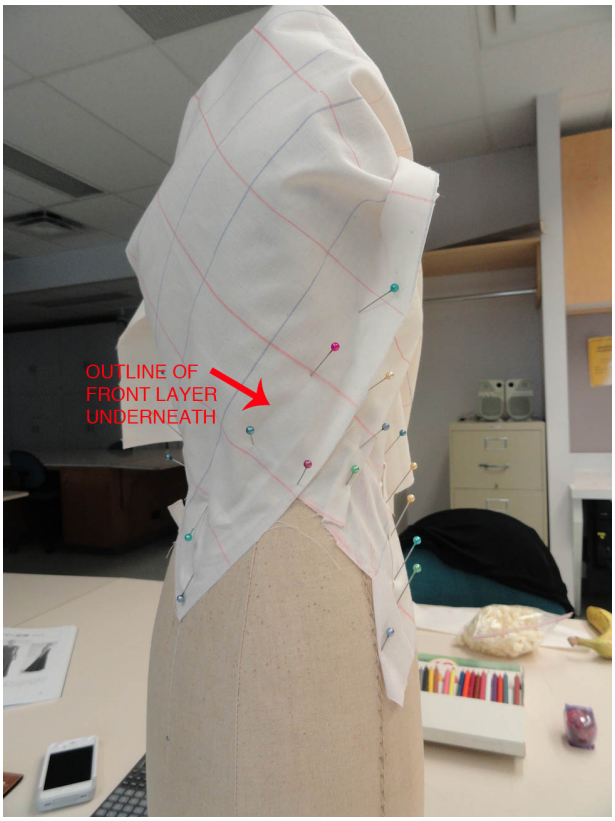


Figure 32a (left): Placing the back bodice point at hip level leaves excess material in the space created by the concave curve of the waistline. Figure 32b (right): Moving the back bodice up allows it to sit more smoothly.



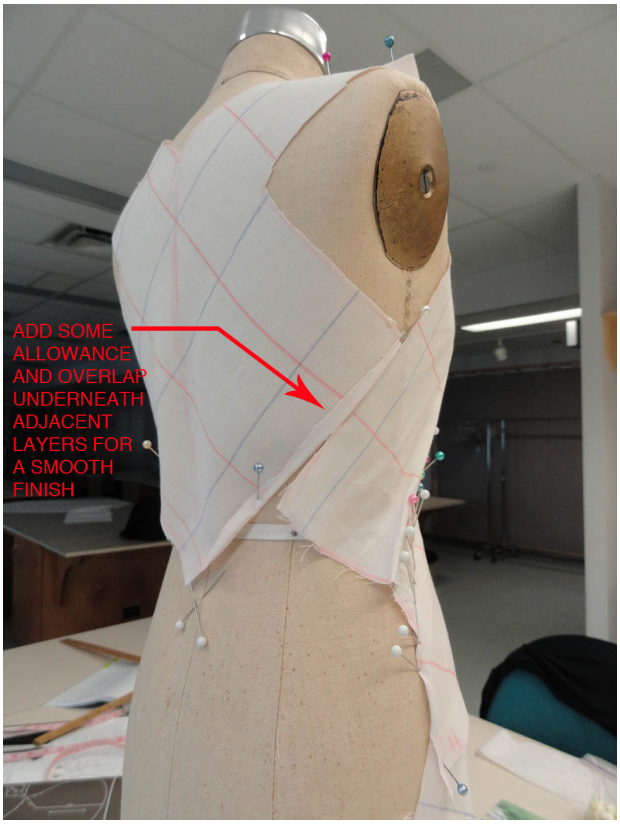


Figure 33a (top): In order to interlock the front and back pieces more accurately, I pinned the back bodice fabric over the zigzag edges of the front and traced the outlines. Figure 33b (bottom): After tracing, I left some seam allowance when I cut the fabric in order to create a smoother finish by overlapping the edges when I pinned the front and back bodices together.

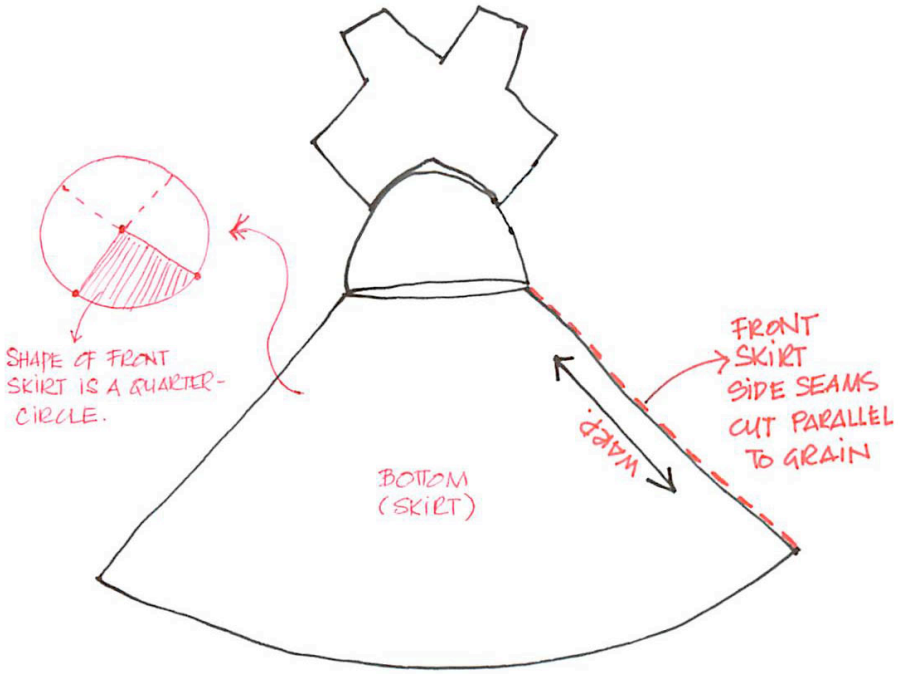


Figure 34a: Front skirt is a quarter-circle hung on the bias with the side seam edges parallel to the grain on one side and cross-grain on the other side.

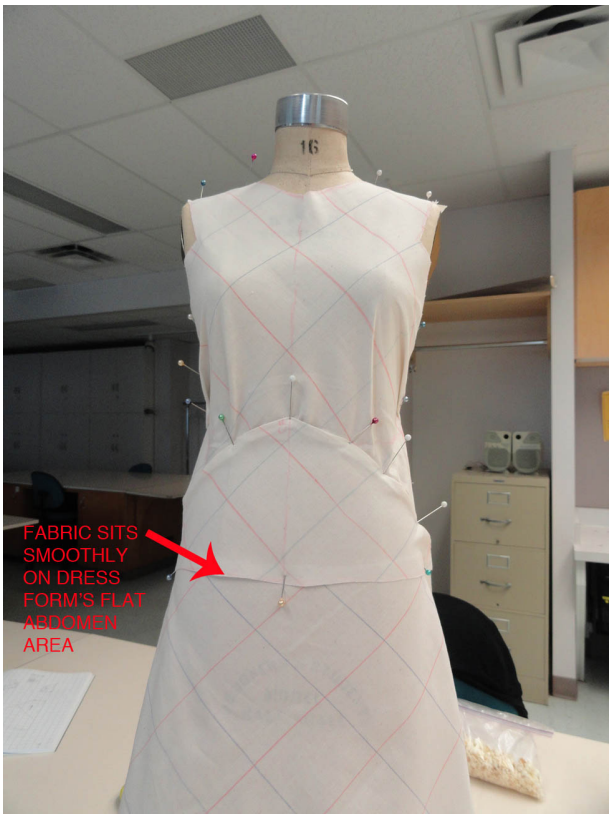


Figure 34b: The dress form's lower abdomen area has no pronounced curves and the fabric sits flatly against it without needing to be smoothed over.

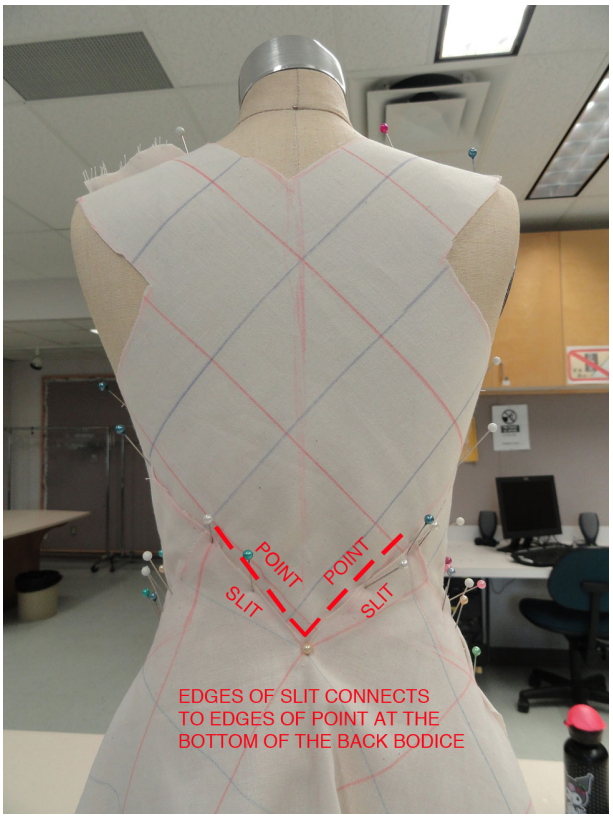
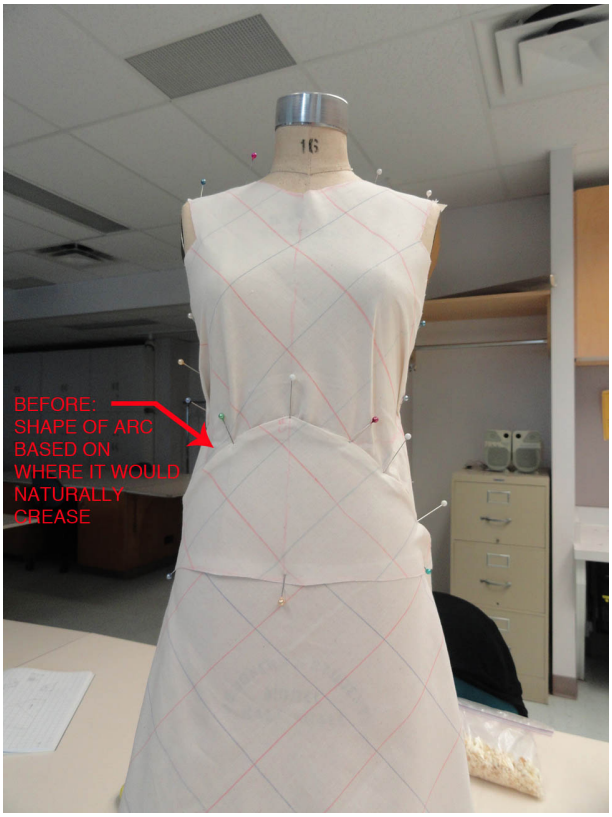


Figure 35: "G" segments: when the slit is cut and spread open, it connects to the point at the bottom of the back bodice.



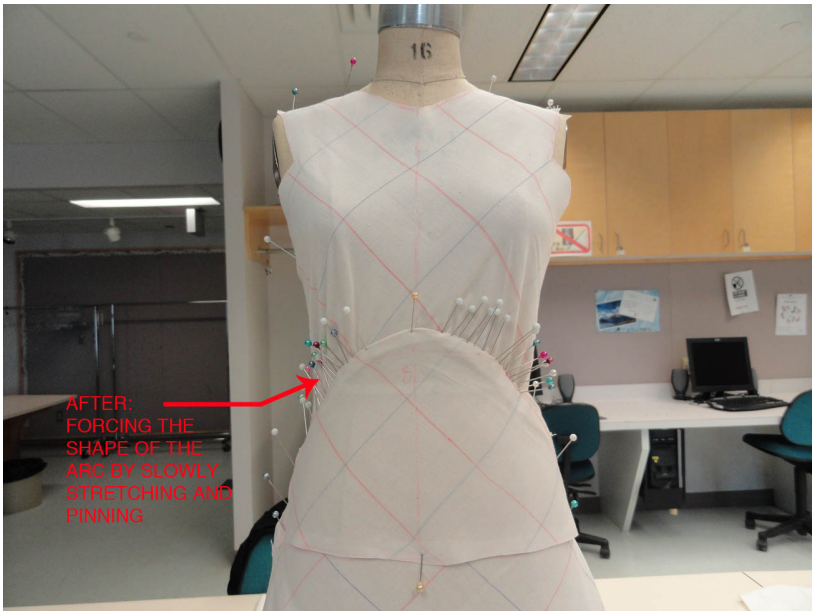


Figure 36a (top): Shows the shape of the arched horizontal dart as I had originally draped it. Its shape was based on where it would naturally crease when smoothing out the fabric. Figure 36b (bottom): Shows the "forced" shape of the arc achieved by slowly stretching and pining. The shape curves off towards the side seam closer to the waist and thus higher than the location of the previous attempt.

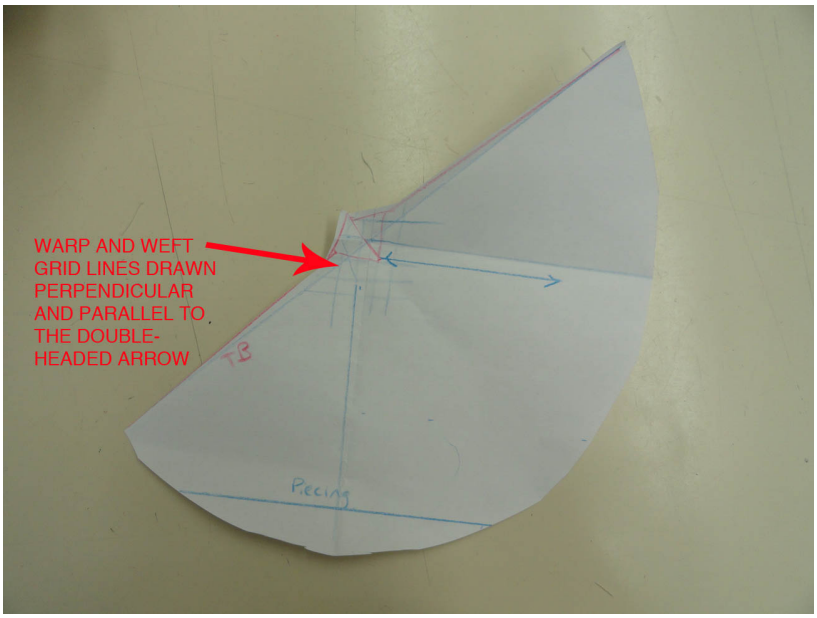


Figure 37: Small-scale paper reproduction of the back skirt showing the direction of the warp and weft grain lines.

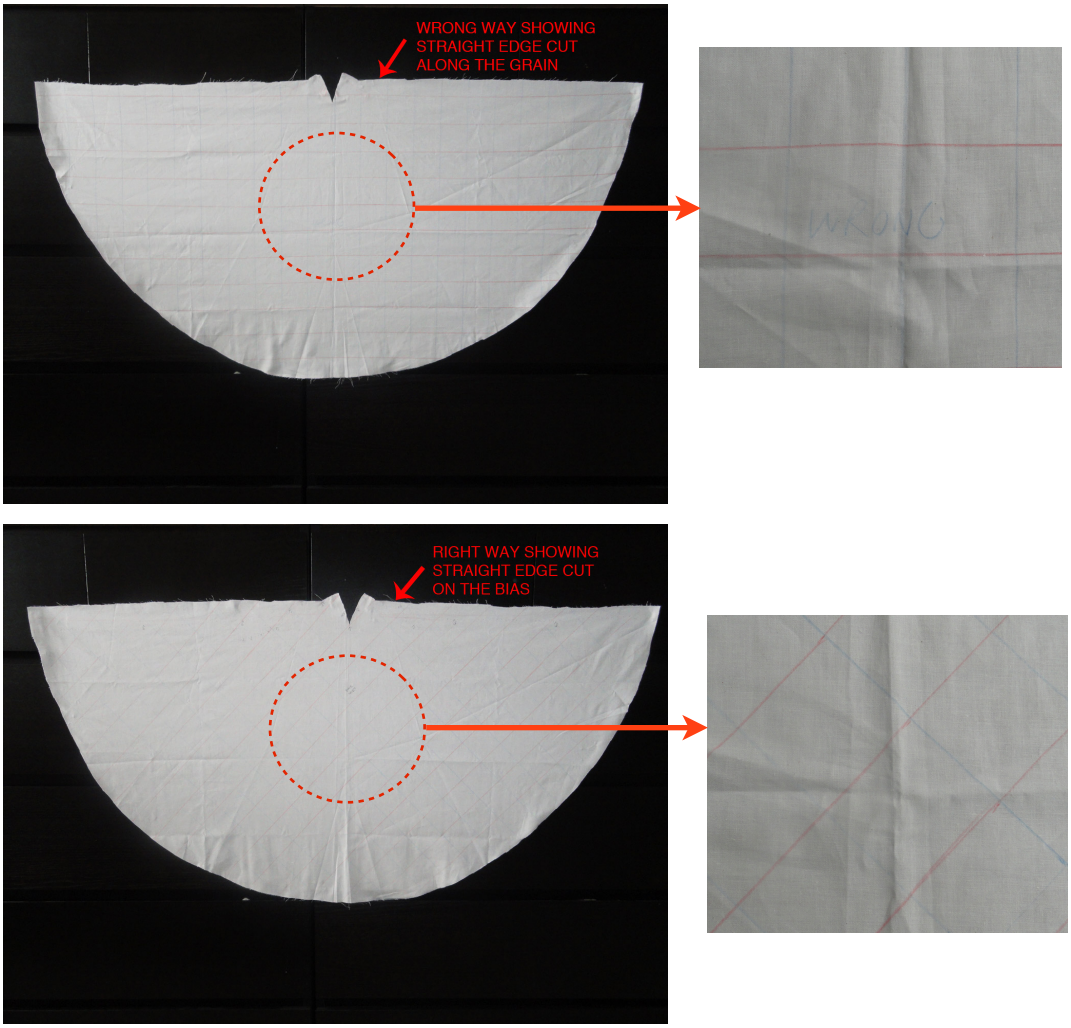


Figure 38a (top): The original way I had draped and cut the pattern, which is on the straight of grain. Figure 38b (bottom): The proper orientation of the grain lines drawn on the back side of the original fabric.

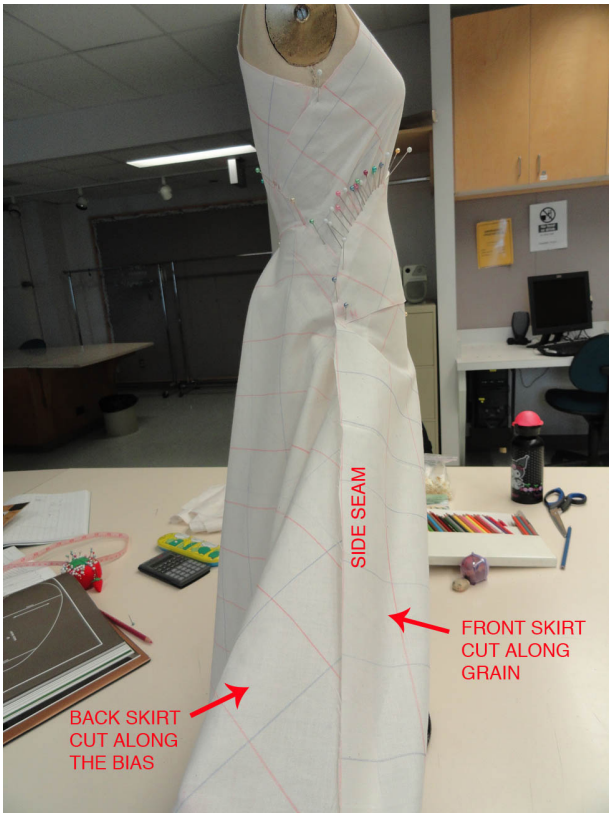


Figure 39: "A" segment: another example of connecting a piece cut on the bias to one that is not. The front skirt that is cut along the grain or cross-grain is connected at the side seam to the back skirt that is cut on the bias.

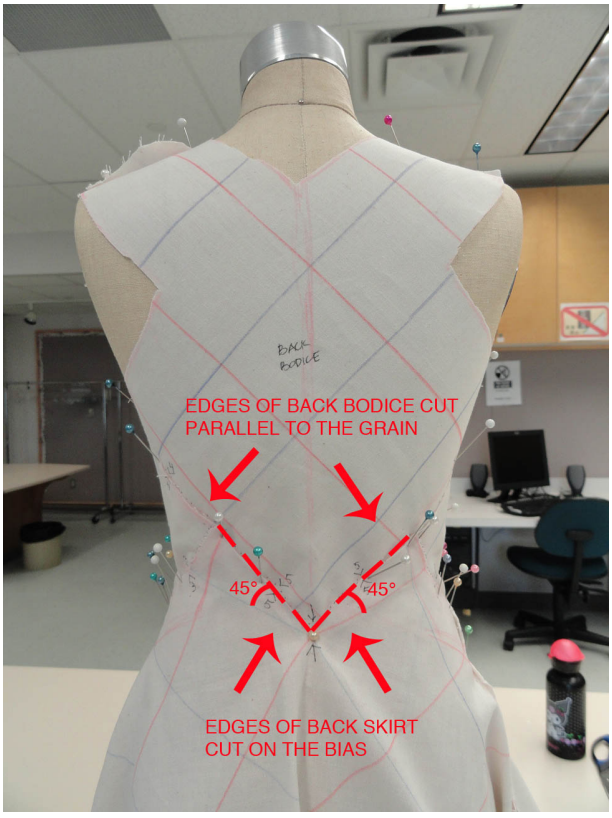


Figure 40: "G" segment: connecting the back skirt to the back bodice is one example of connecting a piece cut on the bias to one that is not. The edges of the back skirt are cut on the bias whereas the edges of the back bodice are cut on the grain.

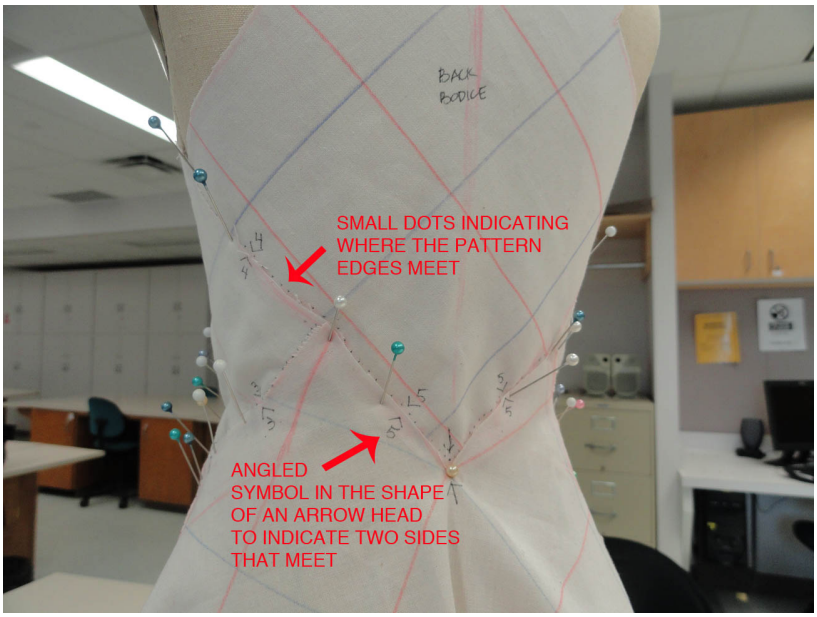


Figure 41: Mark the pattern pieces with symbols in order to reassemble them later on.

Pattern Analysis: Pattern 15

Pattern 15: Reflexive Methodology

Applying Lessons

In the last two exercises, a common problem I encountered was not being able to conform to Kirke's patterns. In Pattern 14, I was particularly influenced by solutions I had applied during the pilot study, and was not as inclined to experiment when I ran into similar problems. I was resolved to use the same solutions I had previously employed. Furthermore, as a novice sewer, I relied on my limited repertoire of garment construction techniques, which are largely influenced by machine-made clothing created for the commercial industry. Consequently, I was not able to apply couture techniques that would have most likely been the methods Vionnet had used. I also realized the dress form I was using could affect my ability to reproduce a gown made for one individual couture client. In these subsequent exercises, I needed to remember to apply what I had learned from one garment, to the next, but also to push the boundaries of what I had already discovered.

Pattern 15: The Draping Process Through My Eyes

How a Novice Worked Through the Process: The Pant-Skirt

The main pattern shape for this garment is a three-quarter circle that makes up the bottom portion.[150] When draped, it circles around the legs to form both a pant and a skirt. I started by cutting out the rectangular piece of fabric that I

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[150] Kirke, *Madeleine Vionnet*, 90.

needed for this three-quarter-circle piece and, as before, I used Bunka's grid lines to determine the size.[151] The size of fabric required exceeded the largest piece I had, so I had to take two pieces and attach them together.[152] After obtaining the appropriate size fabric, the next step was to determine how it is oriented on the dress form. Looking at Kirke's pattern marked "IV," we can see that the double-headed arrow which always follows the grain is placed at a forty-five degree angle, indicating that the bottom piece hangs on the bias when on the body. Another way to look at it is that the double-headed arrow is forty-five degrees from centre back, so that, the grain will be at a forty-five degree angle to the centre back when the fabric is pinned on the dress form (see Figure 42). Another factor to note is that the centre back splits the three-quarter circle symmetrically in half, where either side wraps around the body to create the pant legs. After pinning the fabric on the dress form, I immediately realized that I would need to remove fabric in the inner portion of the piece, as depicted by Kirke's pattern, in order to accommodate the waist and the legs (see Figure 43).

Before cutting out the inner portion, I began to wonder if it was better to drape this pattern on a pant form with legs. Bissonnette had raised the question before I started, but I decided to give it a try on a regular dress form first. This is because the only pant form I had available with legs was that of a child. Although the child pant-form had legs, its chest was flat and I would not be able to drape the

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[151] Bunka Fashion College and Vionnet Research Group, eds., 81-82.

[152] I connected the two pieces by sewing them together along the warp grain. I put the two right sides together and sewed about a quarter inch from the edge. I made sure that they are oriented along the same grain and used a regular seam.

bodice accurately on it. After discussion, we decided to drape the bottom portion on the child pant form to take advantage of its legs, but to drape the bodice on the woman's dress form to take advantage of its shape. Furthermore, Bissonnette suggested that I experiment with a scrap piece of fabric first. Because the bottom portion required so much material, it would prevent me from having to patch up such a large piece or having to recut it if there was a major mistake.

Taking a scrap piece of fabric that was still large enough to wrap around the dress form, I began to sketch a three-quarter circle with an elliptical shaped hole in the middle. According to Kirke's pattern, there are also two parabolic shaped holes representing the crotch that extend from the middle hole. I decided to sketch the shapes for the crotch but did not cut them out. I wanted to drape the fabric around the waist first and use the sketch of the crotch as a guide. I hoped to compare it against the pant form to see if I could figure out why it is shaped that way. However, when I draped the fabric around the waist, it appeared that there was not enough material. I then concluded that I needed to cut out the crotch so that the fabric can loop underneath and wrap all the way around (see Figure 44a and 44b).

After cutting out the crotch section, I pinned the fabric back on the pant form. I started by aligning the centre back line with the centre back of the pant form. The fabric on either side of the centre back line should wrap towards the front, go under the crotch, come out the back, and return to the front where it terminates at centre front, underneath the top layer (see Figure 45a, 45b, 45c, 45d

and 45e). However, despite having cut the crotch out, the fabric still did not go all the way around. I then decided to make the elliptical-shaped hole at the waist larger; especially since the child pant form has a proportionally larger waist than a woman's. After repeating this step one more time, it seemed that cutting a larger waistline was not enough and that a larger and deeper shape for the crotch was also needed. Cutting a larger hole for the waist enables the fabric to loop all the way around, but cutting a deeper crotch enabled me to pull the pattern piece up so that it can sit higher at the waist, as opposed to lower on the hip. These are important concepts I may not have understood had I draped on a woman's dress form.

Another issue that arose was the crotch on the left side and the right side did not line up when the fabric was wrapped around. Consequently, I wrapped the fabric around and pinned it to place separately from the pant form (see Figure 46). I wanted to see how it should wrap around so that one pant leg met the other. It appeared to work when wrapped and pinned this way, so I slipped it back on the pant form to observe how it fit. When I slipped it through both legs, it only came up halfway. I then slipped it over one leg, and it slid all the way up, except the ends that should meet at centre front stopped short from doing so. I made the hole at the waist and crotch bigger once more, pinned the pattern separately from the pant form, and slipped it back on. This time I managed to bring the ends closer to centre front, except that the waistline sloped down from back to front. This was most likely due to the crotch not being deep enough, so I took it off the dress form

to cut a deeper shape. After this final operation, the waist and crotch seemed to sit where they should be on the pant form.

As previously described, this pattern circles around the legs so that it forms both a pant and a skirt. From the front it forms a pair of pants, but from the back it looks like a skirt. However, when we lift the skirt portion at the back, we can see the pant legs that loop around. In this case, when I lifted the skirt at the back, I noticed that the pant leg on the back right did not fully meet in the middle. In fact, it was only covering one half of the buttocks area. I decided to patch up the missing area before removing it from the pant form. This way I would see exactly what I had cut compared to how the shape should be (see Figure 47). After taking the fabric off the dress form, it was evident where the problem was: I had cut the crotch too wide. When adjusting the shape, I only needed to cut it deeper but I had also cut it wider. It is clear that the width of the two parabolic shaped holes that became the crotch needed to have a narrower opening for this specific dress form (see Figure 48).

Instead of leaving the patched up area pinned together as I had done in the previous exercises, I decided to sew it to make the fabric more manageable. An array of pins can make the fabric stiff and heavy, making it difficult to drape. After sewing the pieces, I put it back on the pant form. I noticed that it still did not fully cover the buttocks area and so I began to make further adjustments. I did not want to add more fabric to the buttocks area because the shape of the crotch was already quite narrow and adding more fabric would make the shape too straight.

By pulling the fabric to cover the buttocks area fully, the section that loops furthest to the front moved away from centre front. After discussing with Bissonnette, she explained that it would be necessary for this section to meet at centre front because it is the point where all the layers are sewn together. Since the buttocks area already sat well on the pant form, I decided to add fabric to this section so that it extended to meet at centre front (see Figure 48).

To summarize, I draped the pant-skirt portion of this pattern using a scrap of fabric in order to experiment and understand how the fabric loops around the pant form. It is evident from this exercise that the shape of the waist and the crotch are dependent on the shape of the body. The wider the waist of the child's pant form, or of the wearer, the larger the hole in the middle of the pattern is and the deeper and more changeable the shape of the crotch. Creating a larger hole at the waist enables the fabric to loop completely around the body, and creating a deeper crotch enables us to pull the pattern so that it can sit higher on the body. Furthermore, when shaping the crotch, it needs to be cut lengthwise to make it deep and narrow rather than wide. Cutting a shape that is too wide cuts into the buttocks area.

Before draping the pant-skirt using the new fabric piece, I transferred the shape I obtained from the mock pattern. I did this by placing the mock pattern on top of a larger piece of fabric and matched them along the centre back. In Kirke’s pattern, we can also see that a line forming the diameter of the crotch along its length is approximately ninety degrees from the centre back. I drew a line that is

perpendicular to the centre back on the new fabric, and used this as another guide to line up the mock pattern (see Figure 49). After lining up the mock pattern onto the new fabric, I traced the larger hole and the two parabolic shapes I had obtained for the waist circumference and crotch. When I removed the mock pattern, I adjusted these shapes so that the lines were more even and symmetrical. In the mock pattern, one of the parabolic shapes had a wider opening and the other had a shape so narrow it appeared teardrop-shaped. I adjusted these two parabolic shapes so that they have more of an average opening, one that is neither too wide nor too narrow (see Figure 50). From Pattern 1, I concluded that it is possible that Vionnet employed a variety of methods, possibly mixing draping with flat-pattern design to create a garment. This is one instance where I had to use both methods to obtain the final product.

After cutting the waist and crotch lines I had sketched, I started draping the new fabric in the same manner as the mock pattern. I lined up and pinned down centre back, and wrapped the material on either side around the body. As before, the fabric on either side of the centre back line should wrap towards the front, go under the crotch, come out the back, and return to the front where it terminates at centre front under the top layer. In contrast to the problem I faced with the mock pattern, when the new fabric wrapped around the pant form, there was excess material at centre front. With the mock pattern, the ends of the fabric stopped short of centre front, but in the new one, the extremity of the pattern piece went past it. After re-draping the toile twice, I decided to put the pattern together

separate from the pant form as I had done with the mock pattern. When I looped the fabric around on itself, I adjusted it so that the crotch would first meet in the centre back and observed what would happen to the section that should line up at centre front. In doing this, the pattern shifted so that the right side of this section had an excess amount of fabric but not enough on the left. However, when I shifted to make the ends meet at centre front, the crotch shifted asymmetrically to one side. I was not quite sure why this was happening so I unpinned the fabric and laid it out on the table to have a look at the pattern.

After unpinning the fabric and observing the pattern on the table, it was evident where the discrepancy was: I was missing a section of fabric at one end of the three-quarter circle but had a little too much on the other. This explains why, when I adjusted the fabric so that the crotch met at centre front, the fabric shifted so that one section had more material and the other did not have enough. The lack of symmetry in the pattern shape also explains why, when the ends were pinned at centre front, the crotch shifted to one side. I fixed the missing section by sewing a piece of fabric to extend one end, and cut the excess area on the other side (see Figure 51).[153] When this was done, I draped the pattern on the pant form again, and this time all the appropriate parts met at centre front.

Kirke's original patterns called for gussets to be inserted at the back waist. However, because the child's pant form has a relative lack of concave and convex curves for the waist and hips, it was not necessary to add them. Gussets are

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[153] When attaching the extension piece, I had to make sure that both fabrics were oriented in the same direction and were sewn along the same grain line. In this case, they were sewn along the weft or red grid lines.

typically inserted to provide shaping, and, in this case, it was not required as a child's buttocks are not as rounded as a woman's. Nonetheless, gussets are shown on the bodice, and, since this portion would be draped on the women's dress form, they will be inserted at the bodice. Before draping the bodice, however, I discussed the results of the pant-skirt section that was draped on the child's pant form with Bissonnette.

Corrections and Modifications - Draping with Guidance

Upon observing the pant-skirt, Bissonnette found that it conformed closely enough to Kirke's flat-pattern, except for the missing gussets. However, she acknowledged that they would not be necessary because of the child's body shape. She raised a question that I had not considered, which was how the wearer would get in and out of the garment. In the other exercises, the garments were dresses that could be easily slipped over the head and the fabric's grid placed on the bias could extend and contract to accommodate the wearer. In the case of this garment, as it has pant legs, it will most likely need a zipper or some other device to allow the garment to open up for the wearer to step into. One place where a zipper or similar device can be inserted is at centre front. This location does not seem practical because there is no centre front seam at the bodice. The pant-skirt is connected to the bodice and if there was to be a zipper at the centre front of the pant-skirt it would have to extend all the way up to the bodice. We then referred to Kirke's instructions to see if they offer any clues. In it she writes, "Match lines F and G of part V to lines F and G of part IV and insert gussets into slashes. Leave

line F of left side for opening."[154] Part V is the gusset pieces and Part IV is the pant-skirt. Lines F and G are the edges of the gusset that insert into the slash lines F and G of the pant-skirt. Therefore, from her instructions, we discovered that the zipper is inserted at the gusset seam, which is an appropriate location because the gusset seam extends from the pant-skirt all the way up to the bodice (see Figure 52a and 52b). We then realized that, in this garment, the gussets are not only provided to give shape, but to also allow a place for the zipper or opening. Consequently, although the gussets may not have been necessary for shaping a child's buttocks, it would still be a relevant component in that it is where the opening is placed.

As Bissonnette turned the dress form to observe it, she pointed out that the pant-skirt is hung on the bias at the front and the back, but hangs on the straight of grain at the sides (see Figure 53). It is easier to insert a zipper along a grain line compared to an edge cut on the bias where it is prone to stretching. I had not noticed this characteristic, however, it is the way the circular pattern falls when its ends are cut on the grain but hung on the bias. This is a practical solution as the garment can take advantage of the fabric's stretchability, making it appear more dynamic from the front and back as the wearer moves. However, the sides can be more stable and provide support since they are hung along the grain.

The garment's opening at the gussets and the drape of the circular pattern escaped my question and notice due to my novice background. Bissonnette, with

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[154] Kirke, *Madeleine Vionnet*, 91.

more experience, was quicker to spot these elements. However, I was still able to drape the pattern without necessarily knowing where to put the opening or noticing the way the grain changes. Perhaps these issues would have come to my attention if I had sewn the garment. In the next section, I will outline the steps I took to drape the bodice on a woman's dress form. As previously discussed, a woman's dress form will be used for this section to take advantage of its curves at the bust. Draping the pant-skirt on the child's dress form was unavoidable as it was the only form available with legs. Going back to a woman's dress form for the bodice, I could try to bring this part closer to Vionnet's original intention.

How a Novice Worked Through the Process: The Bodice

The child's pant form, as we experienced from draping the pant-skirt, has a less curvilinear figure. Therefore, as the bodice calls for breast darts as well as gussets, draping it on a woman's dress form provides more accurate results. The first step I took was to examine Kirke's patterns and take note of the grain placement. All three pieces designated for the bodice are cut and hung on the grain. I started with the front bodice, which is the pattern marked "I," and estimated the fabric size I would need from Bunka's grid lines. I hung the fabric according to the correct orientation and began to pin along centre front. I also situated the edge of the fabric high enough so that there was enough material to reach the shoulders.

The first area that I began to drape was the neckline, which is in the shape of a "V." I looked at images of the garment and marked a point approximately

where the “V” begins at the shoulders and where it ends at the chest. After connecting these two points with a line, it was evident that the neckline falls on the bias direction (see Figure 54). However, before cutting the neckline, I decided to lay the fabric smoothly around the dress form to adhere to its shape, and found that any excess fabric at the bust naturally formed into darts at the sides, which conforms to Kirke's pattern. After pinning the darts to the form, I went on to trace the shape of the armhole, which starts from the shoulders and curves down to the underarm. Finally, I traced the placement of the elevated arched waistline, which appears to be an inverted “V” with the centre front located under the bust. As for the neckline, this arch also appears to be cut on the bias (see Figure 54). In draping the bodice, I noticed that there appeared to be some excess fabric in the upper abdomen area under the bust once more. I tried to shift this excess into the side bust darts but it did not shift completely. I left it for the moment and went on to drape the sides.

The gusset pattern pieces marked “II” are located at the sides of the bodice. The edges of the front bodice stop short of the side seam and connect to the edges of the gussets (see Figure 55). As I learned from draping the pant-skirt, the gussets serve two purposes. One is to better contour the waist area, and the other is to allow a place to put an opening. I did not cut out the gusset pieces right away but sketched where the edge of the front bodice would end before confronting the gusset. I then took the front bodice off the dress form and cut the shape, according to the lines that I had sketched. After cutting the excess out, I

pinned it back in place and noticed that the bodice sat better as the excess fabric in the upper abdomen had now been removed.

I decided to drape the back bodice first and then insert the gusset piece at the side after. This way I could trace exactly how large the gussets would have to be to match up to the location of the front and back bodice edges. I draped the back bodice in a similar fashion as the front. I estimated the fabric size I needed from Bunka's grid lines, hung the fabric along the straight of grain, positioned it high enough so there is enough material to reach the shoulders, and pinned it down along the centre back. The length of the front bodice would determine the length of the back bodice since it should line up along the same elevated waistline. We could estimate this by looking at the side and tracing a line from the end of the front bodice to the back (see Figure 56). I then guided the fabric on the back of the form, which was more straightforward as the back of the dress form is relatively flat. I traced the shape of the armhole and marked the edges of the bodice that stop short of the side seam to meet the gussets. When draping the front bodice, I had mentioned that the shape of the armhole is a curved line connecting the shoulder point to the underarm point. However, after cutting the sides of the front bodice, it is evident that the curve of the armhole does not terminate at the underarm point but stops short of it, just as the edge of the bodice stopped short of the side. Therefore, when sketching the armhole shape at the back, we have to take care to line up its ends with the front (see Figure 56). After tracing these

elements, I removed the toile, cut the armhole, and pinned it back on the dress form.

When the front and back bodices were shaped, the gussets were relatively straightforward to drape. In essence, one would only need to pin a piece of fabric to cover the gap between the front and back, match the appropriate points and trace the edges. This is precisely what I did. I cut a piece of fabric that is slightly larger than the gap between the front and back and took care to place the grain perpendicular to the ground. I then marked the points that the gusset should line up with, and overlapped the fabric over the edges of the front and back bodices to trace their shape. For the top of the gusset, which represents the underarm, I traced a shape that continues the curve at the front and back (see Figure 57).

In terms of technique, in this exercise, I learned that the shape of the waist and the crotch of the pant-skirt are dependent on the shape of the body. The larger the waist of the form, or the wearer, the larger the hole in the middle of the pattern and the deeper the crotch needs to be. Creating a larger hole at the waist enables the fabric to loop completely around the body, and creating a deeper crotch allows us to have a higher or shorter torso or waist seam.

The bodice and the pant-skirt were draped separately in order to use the appropriate body form for each part. Although these two parts were draped separately, we still discovered common elements that linked them, such as the side gusset construction. We realized that because the gussets continue from the pant-skirt to the bodice, it is a practical place to insert the opening. Even if the child

pant form did not require them for shape as the bodice did, it would still be a necessary component to provide a place for the garment to open and close. In the next section, I will explore the significance that these technical aspects bring to the Vionnet corpus.

Pattern 15: Solutions and Conjectures

In this exercise, I discovered that it was more appropriate to drape the pant-skirt on a pant form in order to better understand how the fabric loops around the legs. However, we only had access to a child's pant form with legs. We decided to drape the pant-skirt on a child pant form, but the bodice on a woman's dress form. This way we could see how the fabric loops around the legs while still learning to drape the bodice on a body, although one with different curves. This discovery already speaks to the importance of the body and its shape when draping. Ideally, we should choose a woman's pant form.

The importance of body shape continued through the draping process, particularly when I discovered that the hole in the middle of the pattern as well as the depth of the crotch was dependent on it. Because I had used a child's pant form that had a larger waist, I had to cut a waistline and crotch that was bigger than I had originally estimated from Kirke's patterns. Furthermore, I did not initially insert the gussets in the pant-skirt because the child pant form did not have curves and hence did not require them. These examples show how the pattern shape is dependent on the shape of the wearer's body, and how it must be modified to accommodate it, as was the case in the previous exercise.

Consequently, the fact that Vionnet's fashion house created couture clothing plays an even more significant role in observing each pattern in Kirke's book. In Pattern 14, I mentioned that one reason Kirke gave for the lack of bust darts on the bodice is that the garment may have been made for a flat-chested woman of the late twenties and early thirties. Therefore, we have to keep in mind that certain aspects of the pattern shape may have been governed by the body type of the wearer, or the ideal body type of an era, rather than a particular design concept not necessarily transferable to a contemporary dress form.

Pattern 15: Conclusion

In this exercise, body shape played a large role from the type of pant form used to the shape of the final pattern obtained. The pant-skirt portion of the pattern had to be draped on a child pant form in order to take advantage of its legs. However, the bodice had to be draped on a woman's dress form in order to take advantage of its curves at the bust. During the draping process, we also discovered that certain elements of the pattern shape depended on the body shape. For instance, the larger the waist of the wearer, the larger the circumference of the hole in the middle of the pant-skirt pattern and the deeper the crotch. Gussets at the sides of the pant-skirt were necessary in the original pattern but were not when draped on the child pant form with its straighter and flatter body. This is significant in that Vionnet's fashion house created couture clothing, tailored to the individual client. Therefore, when draping, we had to keep in mind that, the body

type of the wearer and not the design concept alone might have influenced certain aspects of the pattern.

The Players - Layers of Influence

Body shape played a large role in this exercise, and the "Player" that had the most influence is the type of dress form used. In this particular case, two different types had to be used in order to properly drape the pattern pieces. The top portion was draped on the dress form with the 1940's silhouette in order to take advantage of its curves. The bottom portion was draped on a child's pant-form in order to take advantage of its legs. Both silhouettes deviate from the original silhouette that Vionnet may have been working with. However, they were the only dress forms available to me at the time of the project, and provided the most accurate results. In this situation, the most ideal form would be a women's pant-form, which would allow one to drape the top and bottom portions together and connect them. This could reveal new discoveries and open up more intriguing questions, and is another route that another researcher or sewer can explore.

PATTERN 15: FIGURES 42 TO 57

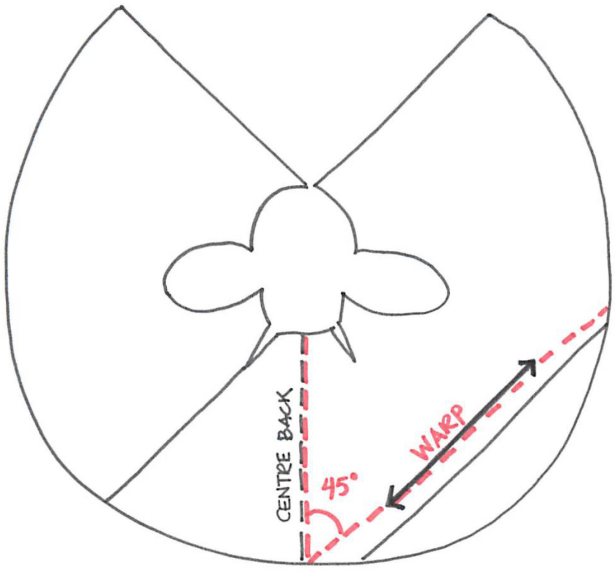


Figure 42: When we turn the pattern to line up with the dress form's centre back, we can see that the grain at centre back is oriented on the bias.

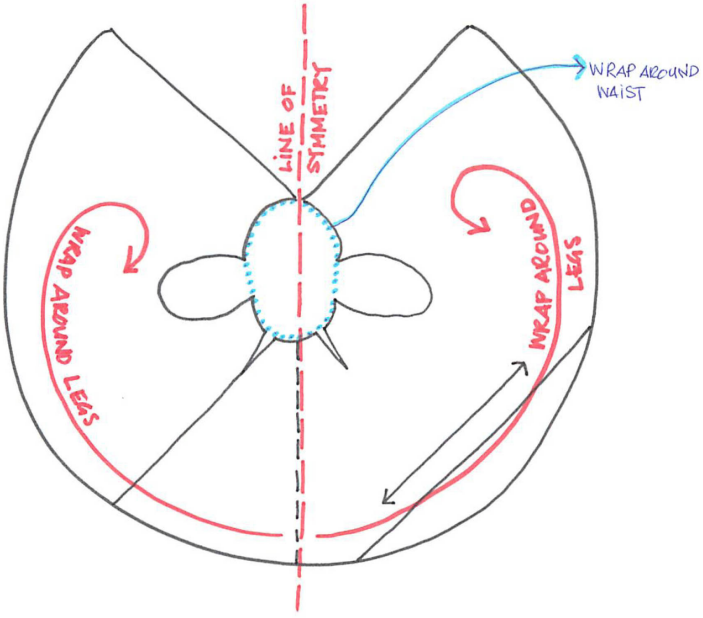
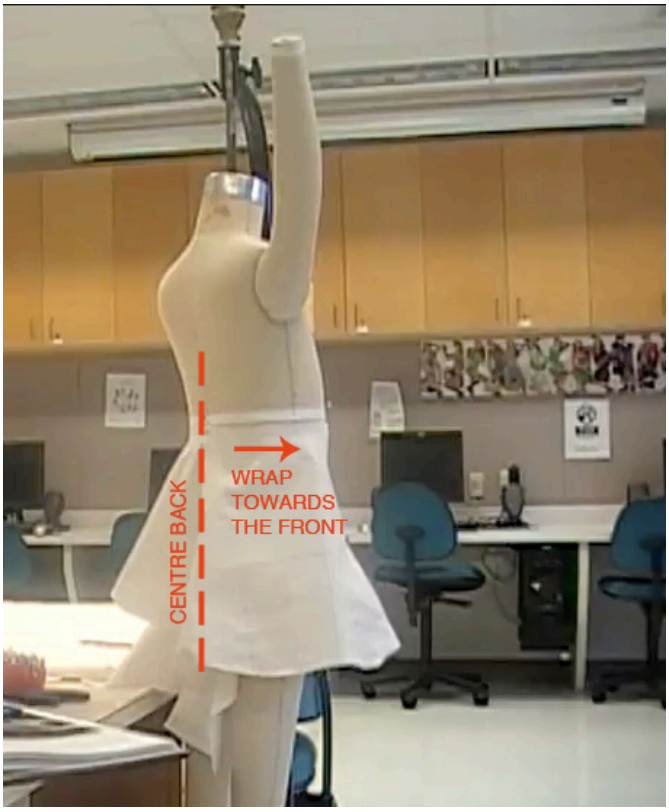


Figure 43: Centre back splits the pattern symmetrically in half, where either side wraps around the body to create the pant legs. The hole in the middle is representative of the waist circumference.

Figure 44a (top): After pinning at centre back, drape the fabric around the waist towards the front. Figure 44b (bottom): The crotch needs to be cut out so that the fabric can loop underneath.



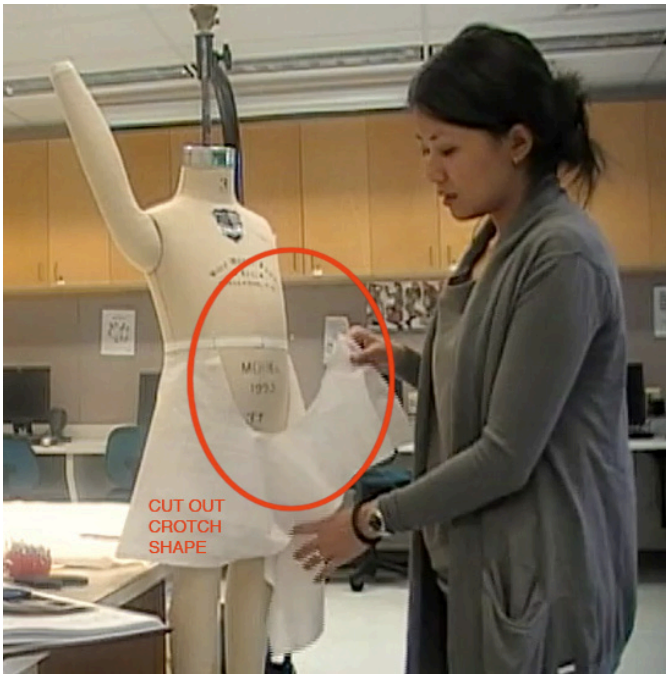


Figure 45a (top): Step one - Pin fabric along centre back and wrap either side around the waist towards the front. Figure 45b (bottom) Step Two - Cut out the crotch.

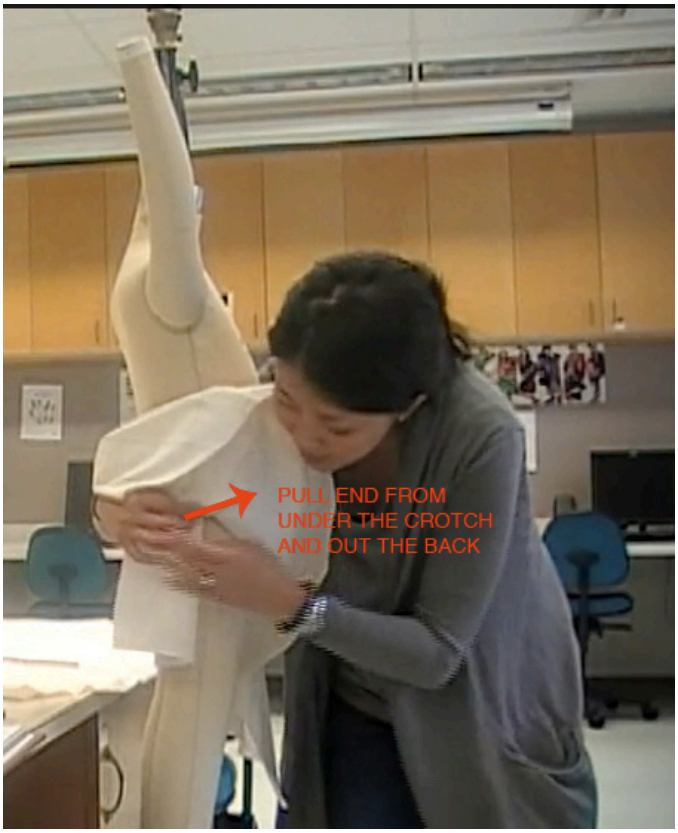


Figure 45c (top): Step Three - Take the extremity of the piece and loop under the crotch. Figure 45d (bottom): Step Four - Pull the end from under the crotch and out the back.

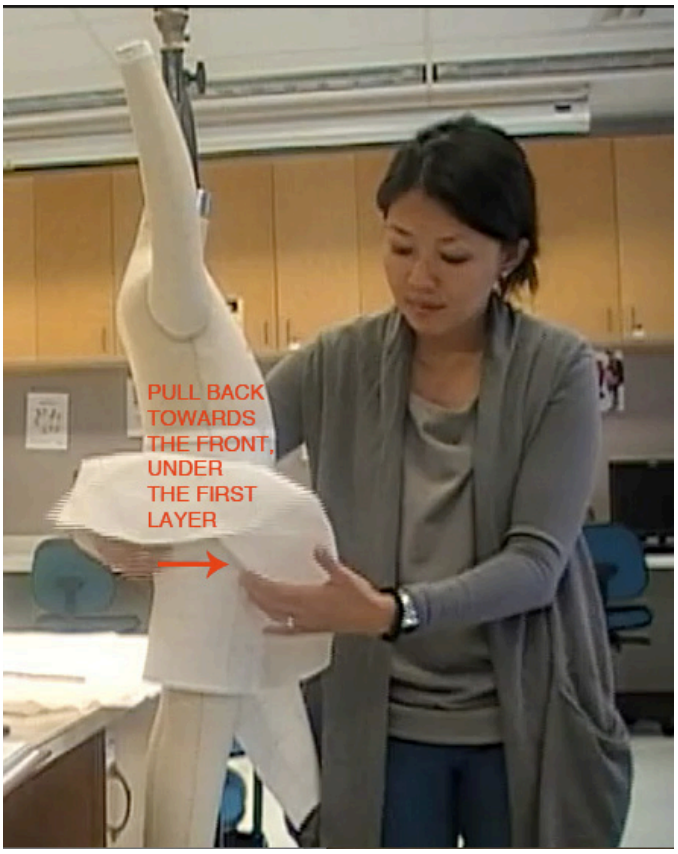


Figure 45e: Step Five - Pull the end towards the front again under the first layer.

Figure 46: I pinned the pattern separately from the dress form to see how it should loop around to form the pant-skirt.

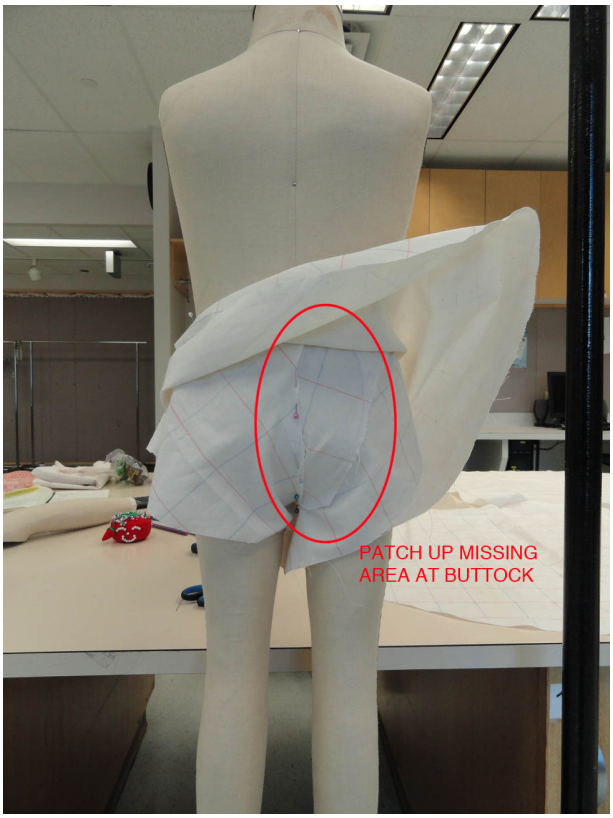


Figure 47: Patch at the missing area of the buttocks.

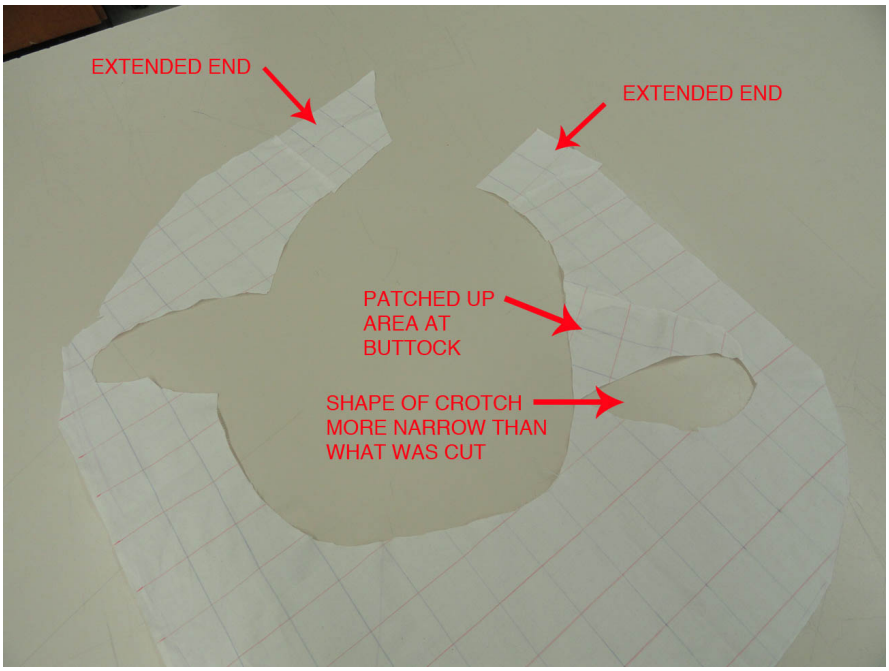


Figure 48: Observing the area I patched up, it is evident that the crotch shape has a narrower opening than what I had initially cut. The ends of the pattern have been extended so that they will eventually meet at centre front.

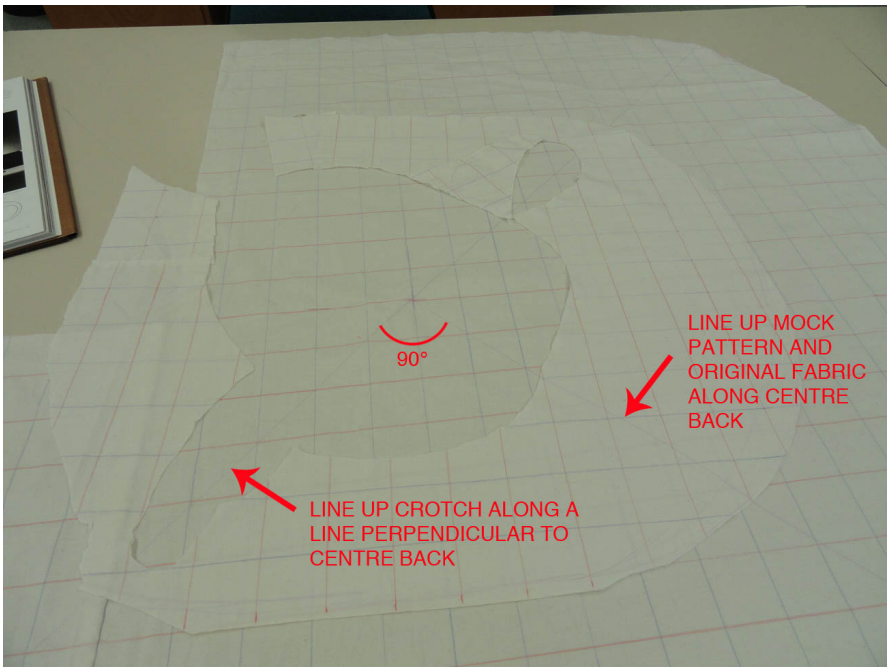


Figure 49: Line up the mock pattern with the new fabric along the centre back and crotch lines. The crotch line is perpendicular to the centre back line.

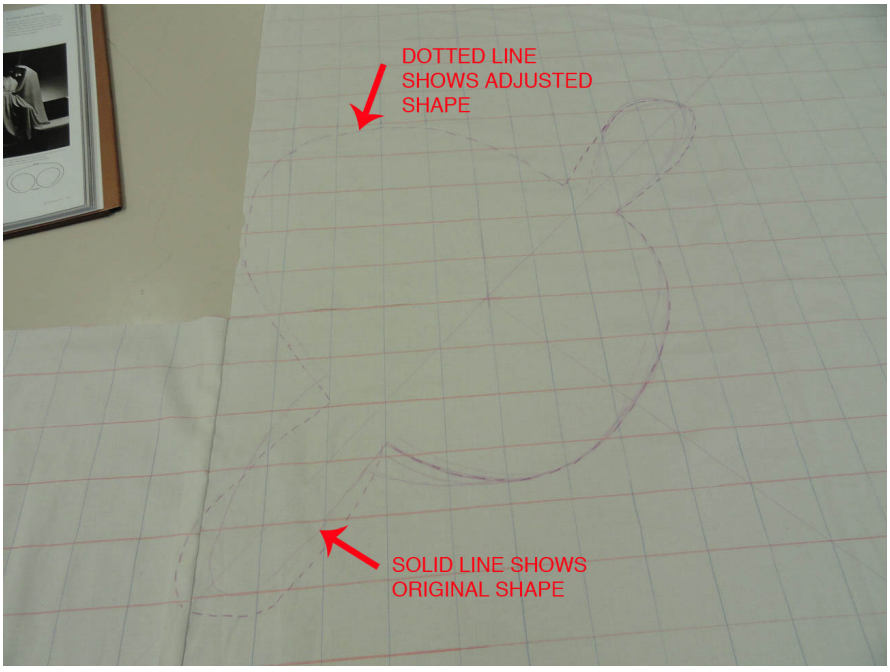


Figure 50: After tracing the pattern shape from the mock pattern onto the original fabric, I adjusted the lines so that they are even and symmetrical. The dashed line shows the adjusted shape in contrast to the solid line that shows the original.

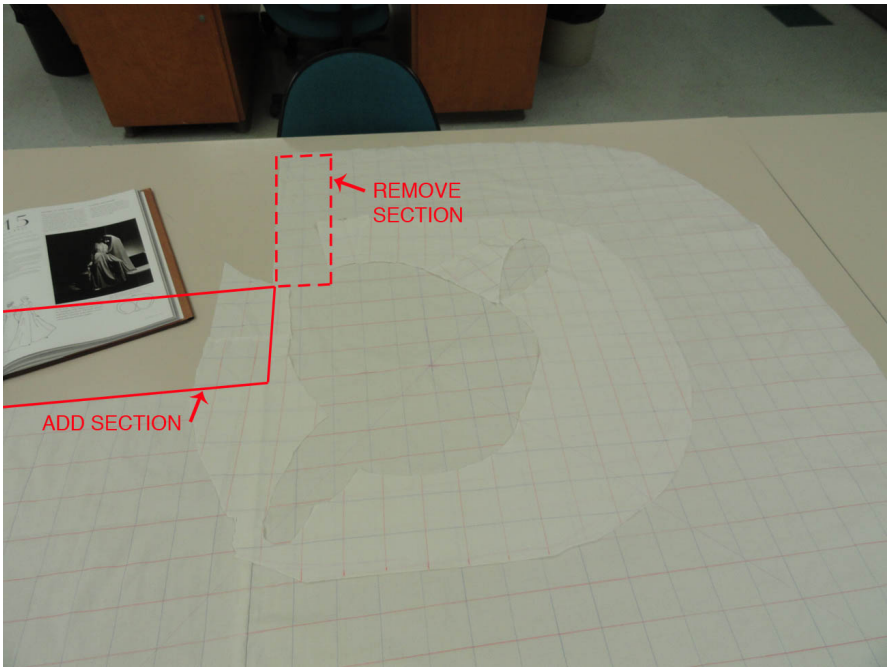
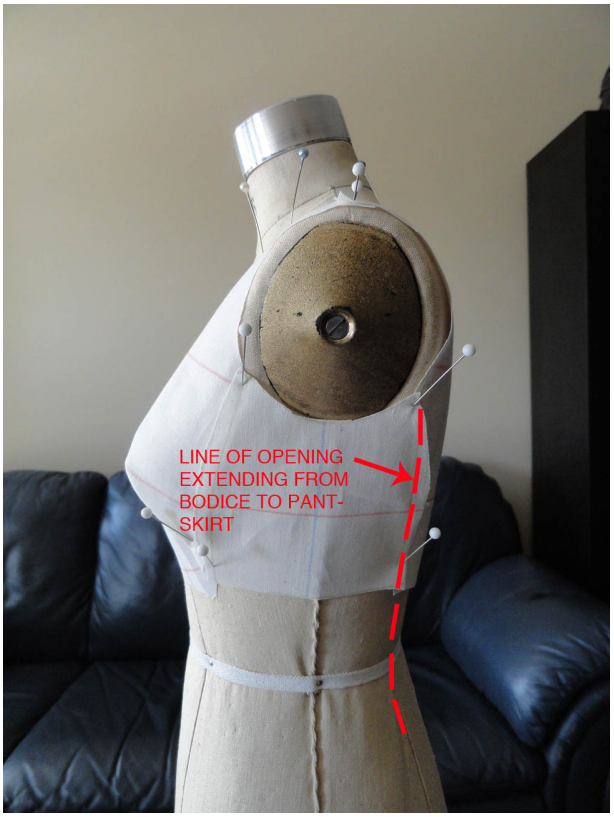


Figure 51: The solid line shows the portion that needs to be added and the dashed line shows the section that needs to be removed.



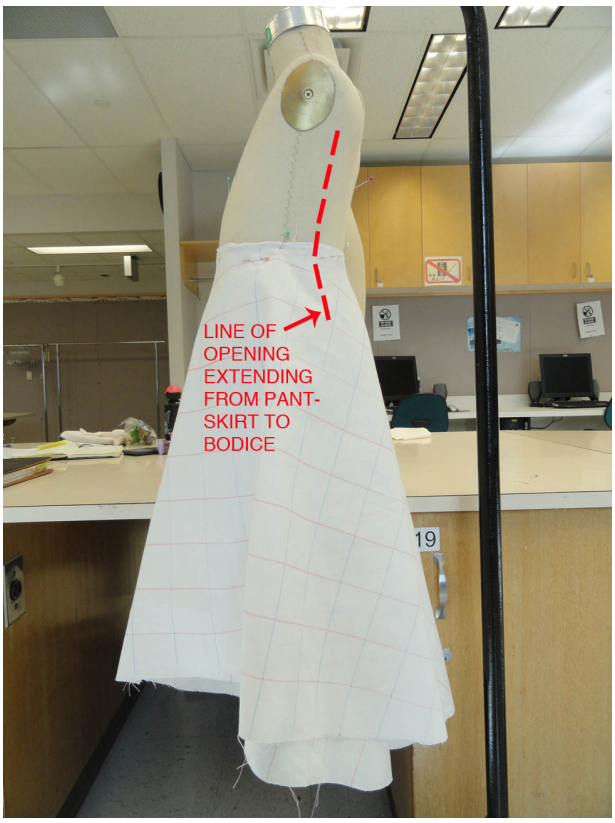


Figure 52a (top) and Figure 52b (bottom): The dashed line shows how the gusset seam extends from the bodice to the pant-skirt or vice versa, making it a practical place to insert an opening.

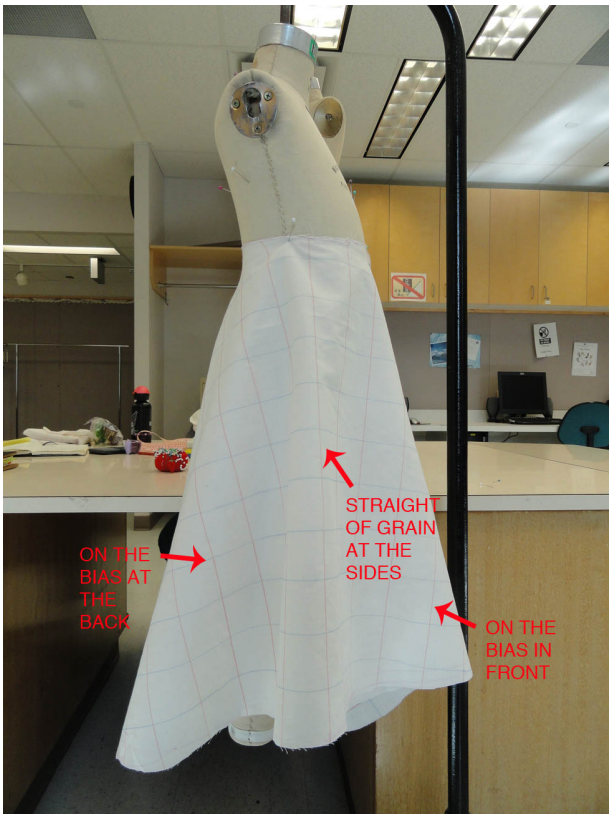


Figure 53: The pant-skirt hangs on the bias at the front and back but at the straight of grain at the sides.

Figure 54: The waist and neckline are cut approximately on the bias.

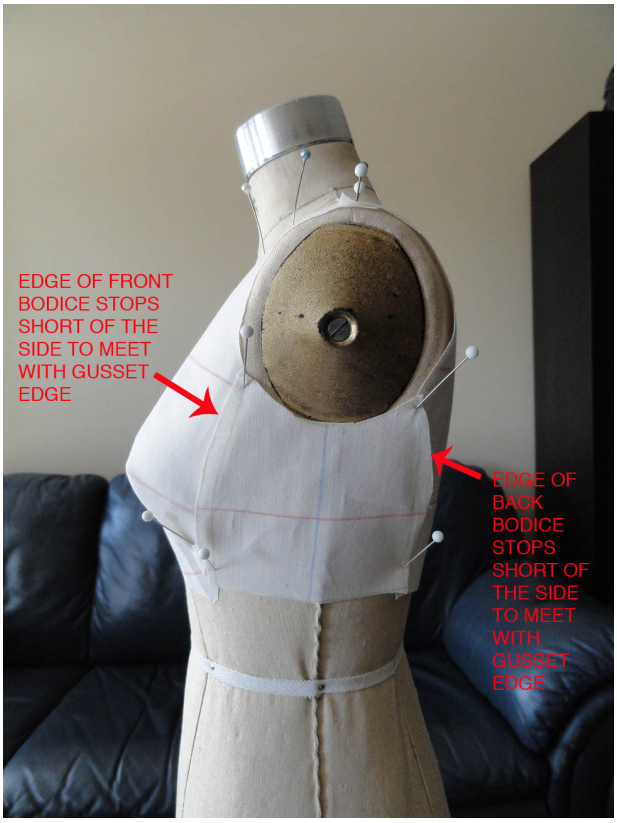


Figure 55: The edges of the front and back bodices stop short of the side seam and connect to the edges of the gusset.

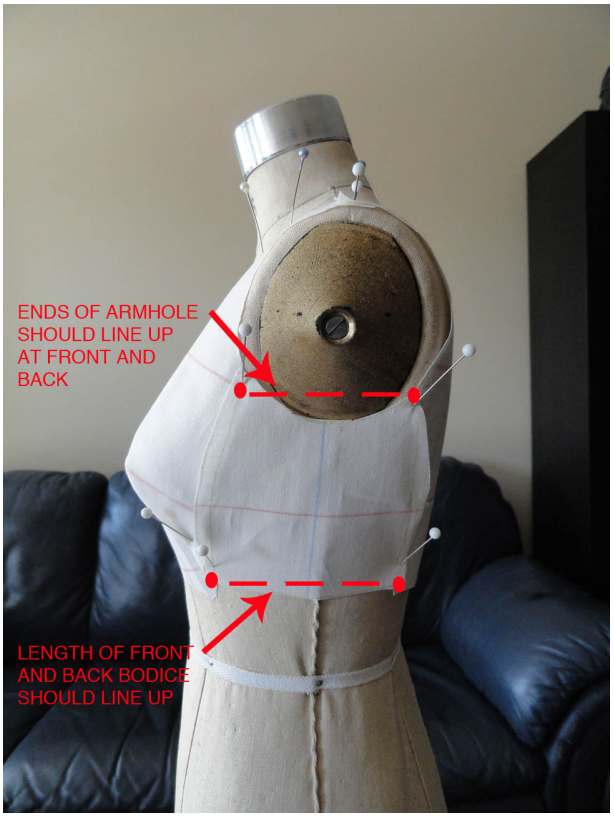


Figure 56: The ends of the armhole as well as the length of the bodice at the front and back should line up.

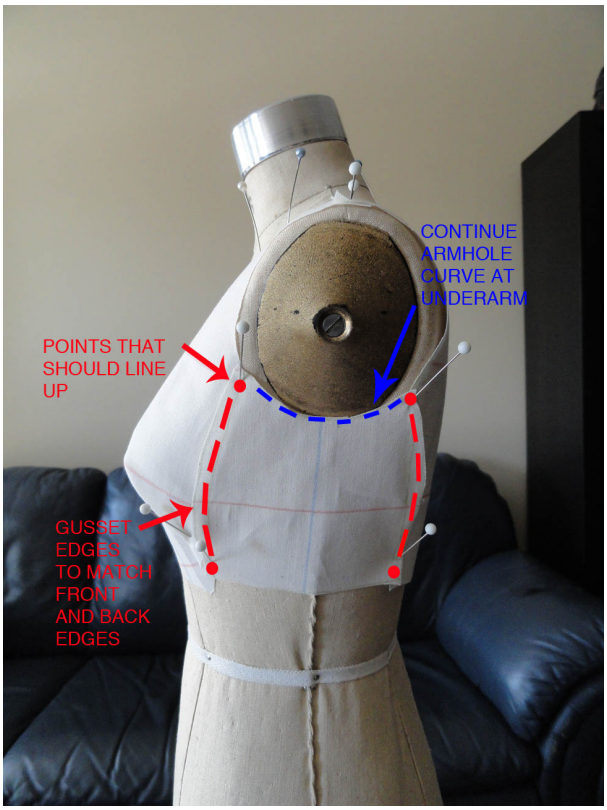


Figure 57: The gussets should match the armhole points and the length of the bodice at front and back. It should also match the shape of the front and back bodice edges and the curve of the armhole.

Pattern Analysis: Pattern 23

Pattern 23: Reflexive Methodology

Applying Lessons

In the sections regarding Patterns 14 and 15, body shape played a major role in determining the type of dress form used and the shape of the final pattern obtained. In the case of Pattern 14 and its added breast dart, one could only determine that the shape of the initial wearer's body was a vital component when problems occurred and solutions needed to be found, rather than at the beginning of the exercise. In that case, novices are unlikely to arrive at this conclusion themselves and are bound to experience a sense of failure. In Pattern 15, with its pant-skirt, lack of a proper female pant form forced me to diverge from the norm, but made me further realize how the body impacted the final shape of the pattern. Out of necessity, I draped the pant-skirt portion of the pattern on a child's dress form in order to take advantage of its legs, but draped the bodice on a woman's dress form to take advantage of its curves. From this I assessed that the larger the waist of the wearer, the larger the circumference of the hole in the middle of the pant-skirt, and the deeper the crotch. As I began Pattern 23, along with lessons gained from previous exercises, I needed to keep in mind that certain aspects of the pattern may have been particular to the body of the client it was made for, and not necessarily dictated by the design concept alone.

Pattern 23: The Draping Process Through My Eyes

How a Novice Worked Through the Process

Similar to the previous exercises, I began by estimating the amount and size of fabric I needed using the grid lines in Bunka's book.[155] The first thing to note about this garment is that it is mainly made up of one large pattern piece with two triangular gusset inserts.[156] Although creating a dress from one large piece seemed daunting at first, it became clearer once I examined the markings on Kirke's pattern. I took note of the inscriptions indicating the centre front, the front neckline and the armhole. Using these locations as guides, we can properly orient the fabric on the body. For instance, we know that the armhole "slash" should be located at the sides of the dress form, and the front neckline should be in front under the neck. Once the fabric is properly oriented, we can see that the centre front forms a line of symmetry, and the material on either side of it wraps around the body towards the back, forming the back skirt and the back bodice (see Figure 58). Another slightly odd characteristic to note when orienting the fabric on the dress form is the direction of the grain. Looking at Kirke's pattern, we can see, from the orientation of the double-headed arrow, that the large pattern piece has the grain (or warp thread) running horizontally on the dress. The cross-grain (or weft thread) falls vertically from head to toe (see Figure 59).

After properly orienting the fabric on the dress form, I began to pin it down. I started by pinning along the centre front and adjusting the appropriate

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[155] Bunka Fashion College and Vionnet Research Group, eds., 124.

[156] Betty Kirke, *Madeleine Vionnet*, 152.

volume for the cowl neckline before pinning at the shoulders. To create the cowl neckline specifically, I directed the surplus fabric at the neckline towards the centre front before guiding the cloth to the shoulders and pinning it in place. In looking at the photographs and diagrams of the garment, we can see that the triangular gussets are inserted underneath the armpit, by cutting a vertical slash in the large pattern piece, where the side seams would be placed if Vionnet had included them. The fabric opens up after the slash is made to receive the gussets (see Figure 60). I did not know how long the slash should be, so I turned to Bunka's grid lines to get a sense of scale. After creating the slash, I cut out triangular shapes for the gussets, the sizes for which I also estimated from Bunka's grid lines. When I inserted the gussets in the slashes, I discovered that they sat too high under the armpit. To remedy this, I cut a deeper slash so that the gussets could be located lower down (see Figure 60). When the gussets are inserted into the slashes, we can see that the wider the base of the triangle (which is now the upper edge of the bottom of the armhole), the more volume is generated at the upper bodice to create the cowl neckline (see Figure 61).

Before draping the back, I felt that the gussets were still sitting too high, so I slashed a little bit deeper to bring them down. I ended up slashing too much on one side and patched it up by sewing a piece of fabric underneath the cut (see Figure 60). As noted before, patching up mistakes through sewing on additional pieces works well and reduces the weight of pins and their cumbersome presence. Next, I pinned the gussets onto the slashes of the large pattern piece on the table

rather than on the dress form. It was easier to fit and pin the long sides of a gusset into the slash this way. This time, when placing the toile back on the dress form, I pinned the sides first to establish where I wanted the gussets to sit. I then pinned the shoulders and adjusted the cowl neckline.

The next step was to wrap the fabric around the back and figure out how the “wing” portion of the bodice works (see Figure 58).[157] At this point in the draping process, the fabric portions that make up the “wings” of the back bodice and the back skirt are still connected. Therefore, after wrapping the fabric around the body, I cut the fabric covering the back in half horizontally at the hip level, thus separating the top or “wing” portion and the bottom for the skirt (Figure 62). Draping the skirt portion was straightforward and only required one layer to overlap the other (see Figure 62). However, the “wings” of the back bodice were more complicated in that they overlap to form a “V” shaped neckline and leaving the lower portions floating freely near the sides at the hip level. From observing Kirke’s pattern, we see that the "wings" follow the shape of a quadrant (quarter circle). In this pattern, the quadrant's apex is the other extremity of the slash. The apex will rest on the shoulder and its curved outer circumference will drape parallel to hip level. I decided that it would be easier to cut the curved outer circumference of the quadrant on the table, so I removed the toile from the dress form and used a French curve to draw an appropriate outline.

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[157] The “wing” portions that I refer to is the quadrant at the top portion of the large pattern piece away from the centre front fold. In Kirke’s book, this portion is described as a “pseudo cape.” Ibid., 153.

To understand how the "wings" overlapped and attached to the skirt portion, I studied the markings on Kirke's pattern. On the large pattern piece, I noticed the inscriptions “G” and “F” on the outer circumference of the quadrant, which forms the hem of the "wing" portion. I looked for another segment that had the same letters, which would indicate that they should be connected together. The only segment I could find was along the top of the skirt portion, but the markings are labelled as "E-G-E" from left to right. Following these markings, it would seem that the curved outer circumference is only connected to the top of the skirt portion "G." Furthermore, on the top right of Kirke's pattern, the "wing" portion is shown with a dotted extremity, and a mirror image of this section appears within the pattern as a continuous line. A curved arrow and broken vertical line also appear and show the centre of this shape (see Figure 63). This makes it appear as if a section of the curved outer circumference has to be folded somehow, but it was hard to grasp.[158]

I continued to experiment with the fabric to see if I could drape the “wings” as they are shown in the visuals.[159] I also tried to keep in mind the markings on Kirke’s original patterns, although I could not figure out how the letters matched together. After experimenting with the fabric, the closest configuration I could achieve had a very low “V” neckline in the back (see Figure

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[158] As the dotted line with an arrow lines up with the end of the skirt portion, there might be a connection to fabric use. However, because the centre front is on the cross grain, the width of the wings is not limited by the width of the cloth. As such, there is no need to piece the extremities of the wings. Why the wings portion is shown with a folded or dotted section still remains a mystery.

[159] For an illustration of pattern 23, see Kirke, *Madeleine Vionnet*, 153. For a photograph of a surviving dress see Ibid., 20.

64). When I consulted visuals, I saw that there is a modesty piece placed in the centre back to cover the lowest part of the "V" opening. I then concluded that perhaps a low "V" opening might not necessarily be wrong, as a modesty piece seemed to be required. The pattern for the modesty piece, however, was not shown in Kirke's original pattern. This piece may have been part of the original garment but was misplaced at the time Kirke was conducting her artifactual research, or was an element that the couture client asked to be added for greater propriety, as in other surviving examples of this style. Lastly, perhaps the modesty piece acts to hold the "V" together so that it does not open as widely.

Another element that did not conform to Kirke's original pattern, but one I could not explain, was the location of the intersection where the "wings" and skirt portions meet at the back. According to Kirke's patterns, this spot should be beyond the bottom of the gusset slash on the upper portion of the skirt. This intersection should be at about half the distance from the centre front to the slash, on the back side of the slash, which should end near the back princess line (see Figure 65). However, when draping the "wing" portions, I found that I did not need to make such a deep horizontal cut. In fact, if I cut it so that it ends just shy of centre back, it worked better (see Figure 65).

I discussed the results with Bissonnette and she recalled that Kirke had draped this garment in 2007 for her second book and, as Kirke's photographer for this project; she could retrieve photographs of this process. She also mentioned that she had created this toile before from Kirke's original full-scale patterns for

an exhibition and had photographs of the resulting toile. From Bissonnette's pictures, it became apparent that the “wings” portion was sewn to the skirt portion in a very different way than my toile. Bissonnette suggested I read Kirke’s instructions to see if they could provide clues regarding how the "wings" overlapped and attached to the skirt.

I returned to the book and dress form and began to experiment with the fabric again. On Kirke’s instructions, under “4. Form Pseudocape,” it outlines to: “1. Finish the edging of part I from F to F,” then “2. Match both points F and attach.”[160] There are several problems with these two statements. Part I would be the large pattern piece, but, as mentioned previously, there is only one “F” point situated on the curved outer circumference of the quadrant, on the "flipped" extremity section. How can one finish the edging of a point or match "both points" if there is only one? If there was another "F" point this would work but there are no other such points in the pattern in Kirke's book. One conclusion I made was perhaps she meant to connect the “F” point from the dress's right side to the “F” point on the dress's left side. I tried this but it did not work. I went on to the last instruction line of the pseudo cape section, which states “3. Stitch both lines G.”[161] There are two “G” points, one on the curved outer circumference of the quadrant on the "flipped" extremity section of the “wings”, and another on the top of the skirt. If assembled they do not create a line but two joint points. I tried to find a way to create a joint segment from points "G" but did not come to a

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[160] Ibid.

[161] Ibid.

solution that worked. I removed the toile from the dress form and tried to mark the points “G” and “F” on the fabric, scaling it approximately from Kirke’s pattern. Even with these points mapped out, I could not find a good solution.

While I was studying Kirke’s pattern, I noticed something I had not noticed before; that is, the horizontal edge of the front neckline is slightly lower than the apex of the “wings” (see Figure 66). As a result, I removed a section of the front neckline so that it was slightly lower. Cutting this horizontal band required some realignment of the toile on the dress form. In order for the top of the gussets to sit straight, the horizontal edge of the front neckline had to sit lower on the chest instead of at the shoulder points. This would mean that the "wing" portions would have to be extended to make up the difference (see Figure 67). Before patching the toile to extend the "wings," I pinned it in place and discussed my problems with Bissonnette.

Corrections and Modifications - Draping with Guidance

The "wings" portion and the change that occurred because of the lower front neckline were my two issues of contention. I tried to drape this garment using Kirke's pattern, a photograph of a surviving garment and an illustration as guides, as well as following Kirke’s written instructions. However, I hadn’t been able to arrive at a successful solution, or one that conformed to Kirke’s work. After scrutinizing Kirke’s pattern, Bissonnette suggested that perhaps there is a typo in the book. The instructions that read “Finish the edging of part I from F to

F" should read "Finish the edging of part I from F to E."[162] Looking at this conundrum, a better solution would be that the top edge of the back skirt where there are markings "E-G-E" from left to right, should be labelled "F-G-E" from left to right (see Figure 68).[163] With this correction, finishing the edge from "F to F" in part I, as instructed by Kirke, would make sense, as that portion of the "wings" is not sewn to the skirt and floats freely near the sides. The corrected points F and F would be superimposed and it is the remaining segment that is sewn, joining the section between points F, G and E. A new marking for point "E" should also be added on the curved outer circumference of the quadrant (see Figure 69).

Another correction that Bissonnette suggested was the location of the front neckline edge. I had initially thought that it had to be cut shorter and pinned below the shoulders at the chest. This would mean that the apex of the "wing" portion would have to be joined to the front bodice in front rather than at the shoulder line. However, she clarified that the "wing" was longer than the front because it had to have a tuck at the shoulder where Kirke placed two notches and the letter "C." This tuck needs to be completed before being attached to the front, as indicated by the curved arrow in Kirke's diagram (see Figure 70). The "FINISH SHOULDERS" instructions exist but they are hard to understand. It indicates to "1. Tuck the back shoulder C" and "2. Match C to front shoulder A and stitch."[164]

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[162] Ibid.

[163] Ibid.

[164] Ibid.

This produces a strange small pleat and requires a twist of the wing's apex in an unspecified direction. It is reminiscent of pattern 3 but is not as intuitive. I did my best to follow these instructions. This required me to lift the dress up slightly as I had previously cut the front neckline shorter. If I had to redo it again, I would not cut the horizontal band at the neckline but extend the wings instead to retain my initial placement of the toile on the dress form.

Although this dress might look simple, there are many things that make it interesting and complicated. While the alternate presence of a back modesty piece on visuals and its absence in Kirke's pattern was minor, the main difficulties I encountered during this exercise were due in part to discrepancies between instructions and the "points" (E instead of F at the wing and skirt intersection) placed on the pattern. As a visual person, I became increasingly reliant on using markings on the pattern and visuals of the garments as guides. Nonetheless, I erred in where the loop of the floating fabric for the wing ought to be situated (see Figure 67). My heavy reliance on this method worked against me in many ways. In the following section, I will discuss the specific areas that were affected.

PATTERN 23: SOLUTIONS AND CONJECTURES

As my background shaped the draping process, there was a particular reliance on using visual tools as guides. For instance, when starting to drape, I found it helpful to visualize how the fabric is oriented on the dress form by observing the markings on Kirke’s patterns. This enabled me to picture which parts of the fabric will turn into the neckline, the armhole, etc. However, due to a

possible typo on the pattern, I was not easily able to complete the “wings” portion of the back bodice. I could have used the visuals for help to unravel the problems with the pattern but that did not come readily to mind. As a novice, I did not have the experience or the confidence to question what I was seeing in Kirke’s pattern, and continued to be puzzled by the markings. Another factor that led to some confusion was the presence of a modesty piece at the back bodice inserted in the lowest part of the “V.” This modesty piece was shown in pictures of the garment but was not included in Kirke’s patterns. In my initial attempt at draping this garment, I ended up with a “V” opening at the back that was too low. Rather than seeking alternate solutions, I used the modesty piece as a way to rationalize why it did not conform; I concluded that the modesty piece acted as a device to hold the opening closer together.

I relied on patterns and their markings as well as images of the garment to help me drape. However, as shown, this method can be ineffective if there are discrepancies on the pattern or if the garment had been styled differently from Vionnet’s original intention. Additionally, it can become a crutch in my ability to question why Vionnet did what she did. If I tried to problem-solve these issues by myself, maybe I could better understand the thought process rather than just copy the end result. As a novice, I have not developed enough experience or confidence to be more analytical or critical of what I view as the authority; in this case, any information presented in books by Kirke or Bunka. Over time, with more knowledge and experience, I hope to develop a more analytical and critical eye.

Nonetheless, with this realization in mind, it is important not to assume that the expert texts we study are without flaws. It is from questioning that we find new solutions.

For instance, when I turned to Bunka to figure out how long the slash for the gussets should be, as well as for the gussets' proportions, it was pointed out by my advisor that I could have thought it through. I could have asked myself what would happen if the slash and gussets were shorter or longer: what volumes might result at the upper bodice? Was Vionnet simply creating volumes to accommodate the breasts? A shorter slash and gusset could then have sufficed. Or did she have to keep in mind the overall proportions of the gown in addition to the body's volumes? Would a shorter slash and gusset fall as gracefully as a longer one? The fact that Kirke did not include a grid in her work frustrates novices who may turn to Bunka's book, which was specifically written for students. However, in doing so, they tend not to think outside the box or question Vionnet's methods. I never stopped to ask myself what would happen if the slash was not on the grain or cross-grain. Novices and experienced sewers might succeed in creating perfect copies with the help of Kirke's book, but do they push their understanding of the creator's mind?

According to Bissonnette, Kirke's greatest chagrin is that mere copies were made from the book rather than pushing Vionnet's ideas further to re-think twenty-first century dress. Looking at Pattern 23, a connection to Zero Waste design principles comes to mind. If we think of this design principle on a

spectrum, Pattern 23 is a very efficient use of fabric while also pushing Vionnet's geometric and comfort principles further. Slashes and gussets are a recurrent Vionnet technique that can both accommodate the body's curves and its motion, as well as, be put to use in Zero Waste design.[165] While gussets have traditionally been found on skirts, one could re-think their placement and purpose: if the legs' motion is mostly forward and back, why not place gussets where the movement is? Maybe Vionnet did, but I never stopped to look.

Through using Kirke's red and blue grid system on the fabric, I gained greater understanding of the grain as a central part of Vionnet's design process. Woven cloth is the essence of her medium and a fundamental part of her experimentations. While she is renowned for her work with the bias, there is very little use of it in Pattern 23 and yet Kirke made this pattern one of the five building blocks in the study of Vionnet's construction techniques. Why is this? It is a great example of what is essentially a one-piece dress made of the combination of several geometric shapes Vionnet had been experimenting with. It is also a marvellous demonstration of the slash and gusset principle to create new volumes that even a novice can grasp. The placement of the warp and weft is also unusual; I never stopped to wonder why it was so, until my advisor brought it to my attention. What would happen if the centre front were placed along the grain as it is traditionally done in contemporary production? It would likely result in an unsightly centre front seam as woven cloth could not be produced wide enough to

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[165] Zero Waste is to design with the goal of avoiding the waste of materials and to have a way of reusing or recovering them.

accommodate what is a very wide pattern piece.[166] Did Vionnet's desire to produce a one-piece dress lead her to place the centre front on the cross-grain and design the pattern accordingly? This is likely the case. It is a technical detail that others might address, and keep in mind, when analyzing and learning the work of the master.

PATTERN 23: CONCLUSION

I have always known that I am a visual learner but, yet again, there are many clues that were on the pattern that I did not see (such as the notch at the wing's apex). Nonetheless, I relied heavily on using pattern markings and images of the garment as guides in the draping process. However, in this exercise, I discovered that this method can be misleading if errors have crept into the writing or editorial process. One of the goals of this project was to find issues novices would find problematic in Kirke's book, and to provide potential solutions. I was able to accomplish this with the help of Bissonnette who has a more seasoned eye. She was able to quickly determine what was a potential error, whereas I continued to follow what I saw. As a novice, I did not possess the experience or confidence to question the sources that I was studying. Nonetheless, our exchanges of questions when faced with problems led to the thrill of discoveries. I hope to develop a more critical eye as I gain more knowledge over time, but, from this exercise, I learned how important it is to question not only my assumptions and methods but also what I deem to be expert sources.

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[166] Kirke indicates that Vionnet had wide fabrics woven for her but this piece likely exceeds the width of those custom-made goods.

The Players - Layers of Influence

In this exercise, my own skill set once again had a large impact on the draping process. I have a limited background in garment construction and my lack of experience did not afford me the confidence to question Kirke's book, which I considered to be an expert source. Therefore, in this case, a heavy reliance on one source influenced the direction of the process, and once again it took experience to discern the missteps. I realized that writing technical information clearly yet succinctly can be very difficult and problematic, and that errors can occur at different levels. Numerous "players" enter in the production of a book that affect the final outcome and this process is seldom perceptible by readers. Overall, many factors are at play that may impact one's understanding of how Vionnet's designs and patterns have a level of complexity that takes time to analyze and fully understand.

PATTERN 23: FIGURES 58 TO 70

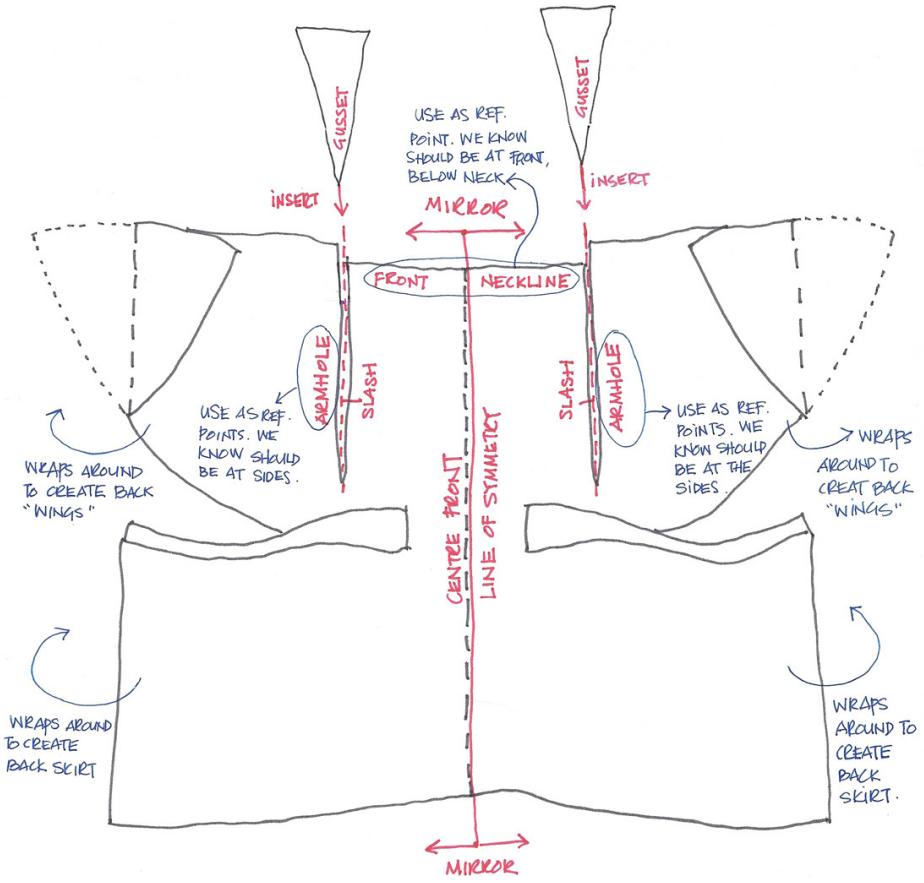

Figure 58: The centre front forms a line of symmetry, and the material on either side of it wraps around the body towards the back, eventually forming the back skirt and the back bodice.

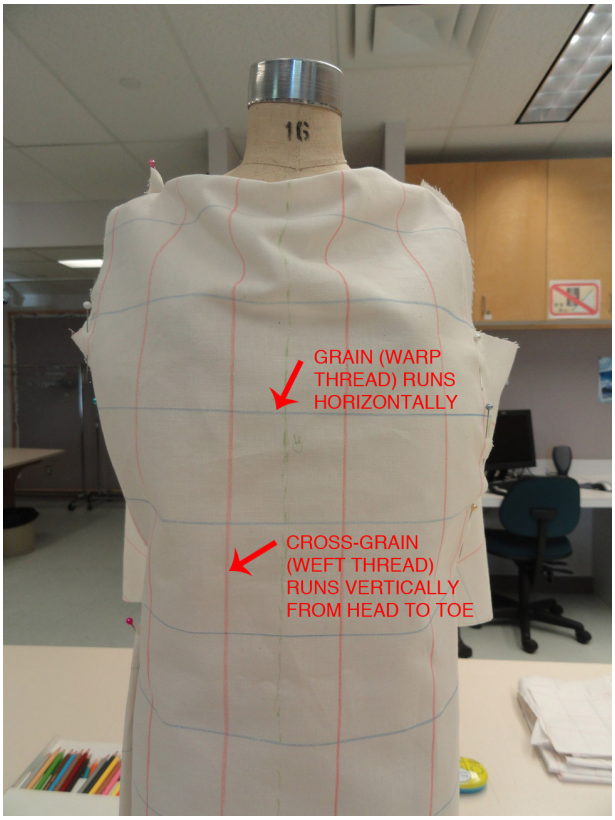

Figure 59: The centre front of the large pattern piece falls on the cross-grain (weft thread). The grain (warp thread) is placed horizontally.

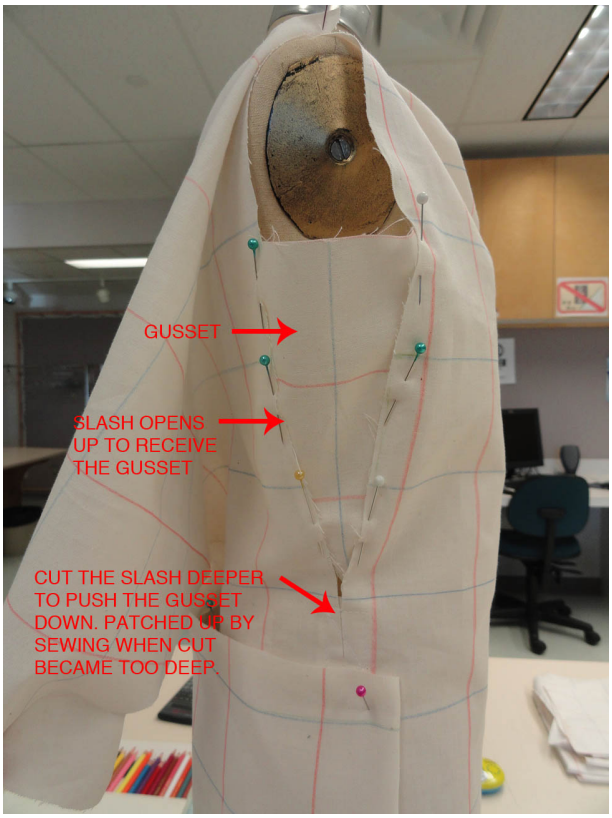

Figure 60: The fabric opens up after the slash is made to receive the triangular gusset. The slash can be cut deeper to push the gusset down if it sits too high under the armpit. If the slash is too deep, it can be patched up by sewing a piece of fabric underneath.

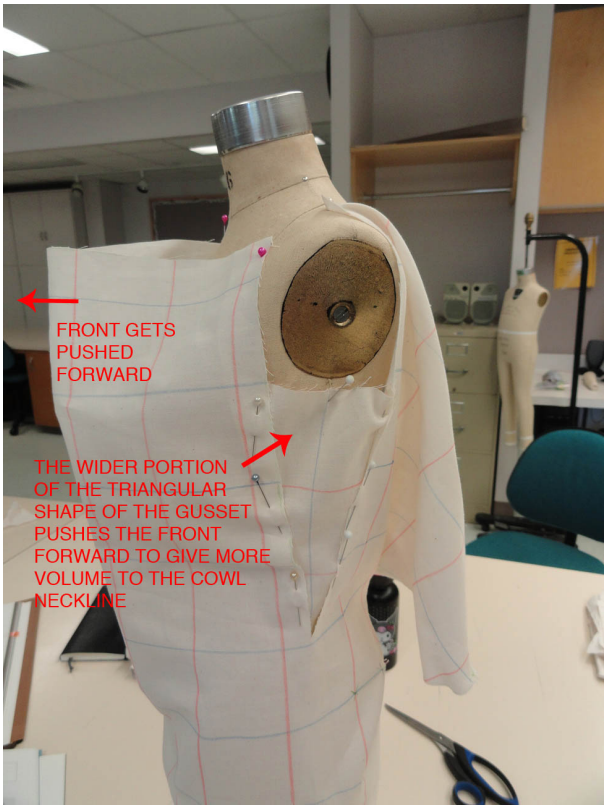

Figure 61: When the gussets are in place, the wider portion of the triangular shape pushes the front forward to give more volume to the cowl neckline.

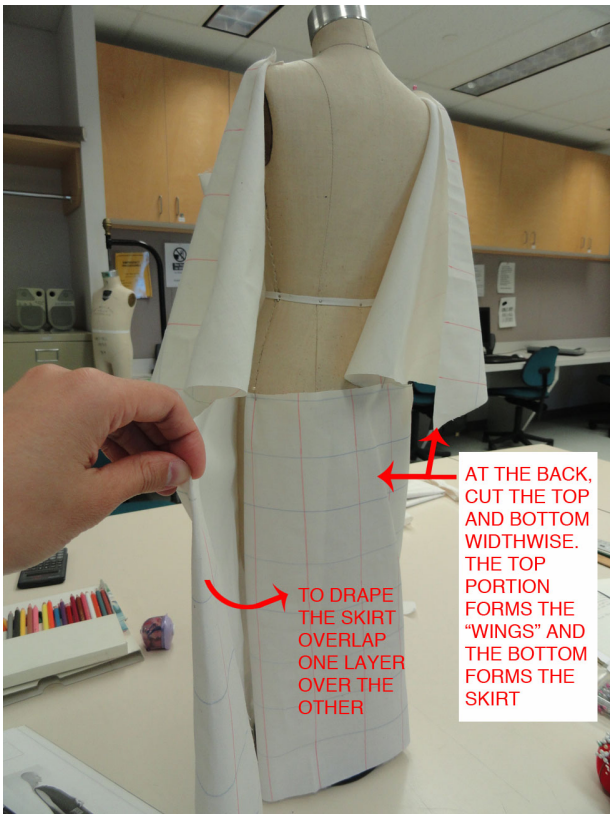

Figure 62: After wrapping the fabric around the dress form, cut the fabric width-wise along the hip level at the back. This will separate the top and the bottom portions; the top portion is for the "wings" and the bottom is for the skirt.

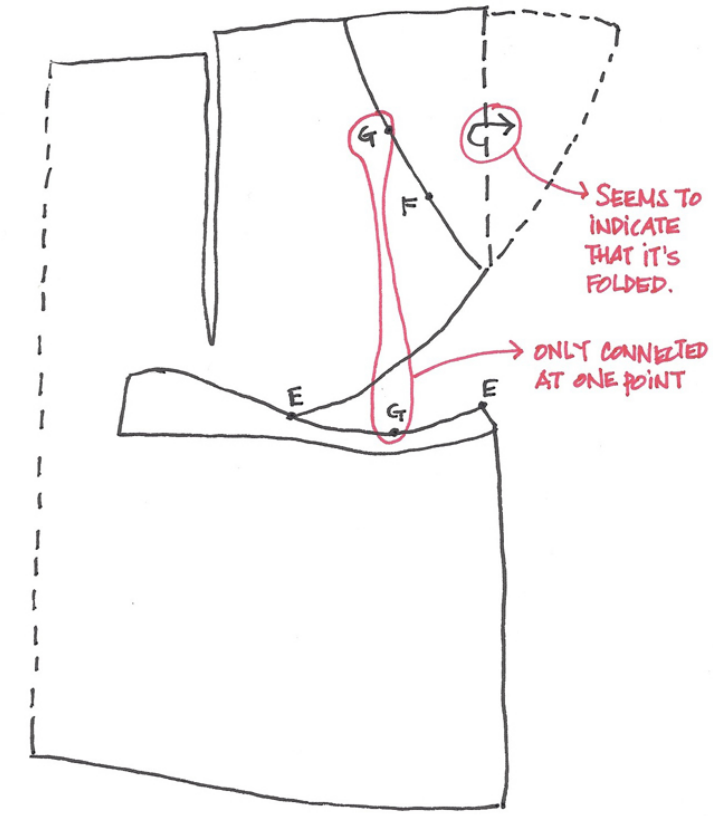

Figure 63: From the markings on the pattern, it appears that the curved outer circumference of the quadrant is only connected to the top of the skirt at one point. The rounded arrow indicates that this portion is folded but it is unclear how or why.

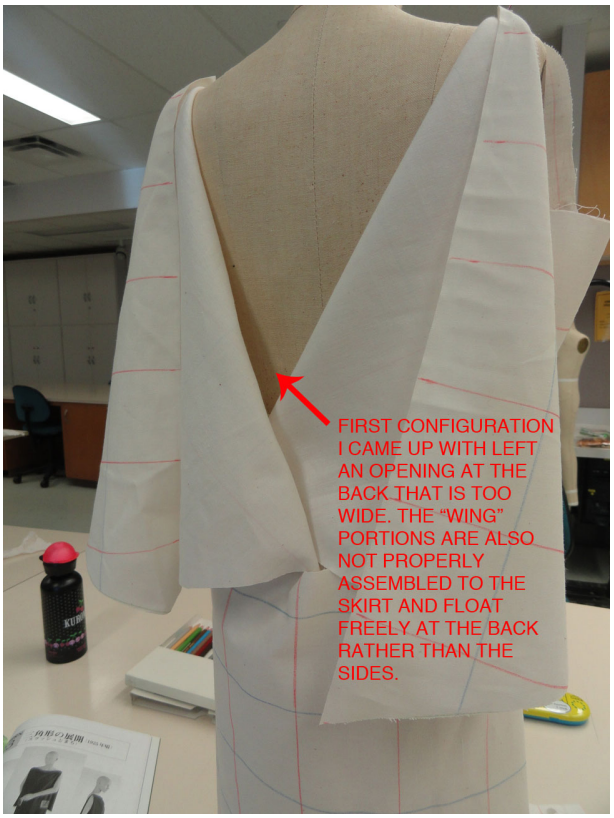

Figure 64: My first attempt at draping the back left an opening that was too wide. The "wing" portions are also not properly assembled to the skirt and float freely with the further most edge floating in the back.

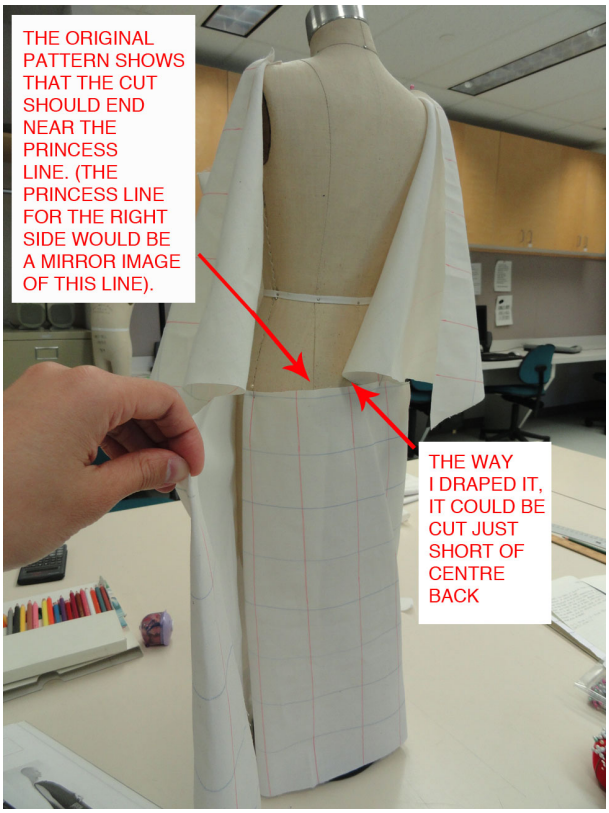

Figure 65: According to the original pattern, the cut separating the top and bottom portions at the back appears to end near the princess line. However, the way I had draped it, the cut could stop just short of centre back.

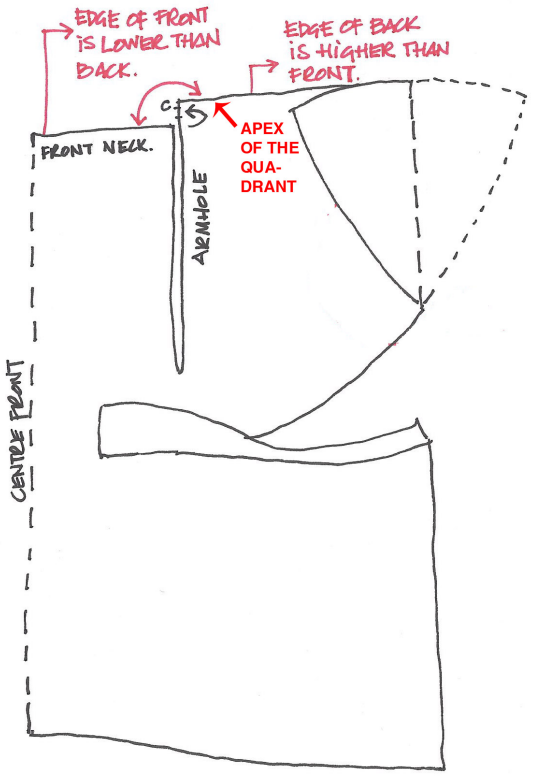

Figure 66: The horizontal edge of the front neckline is slightly lower than the apex of the quadrant.

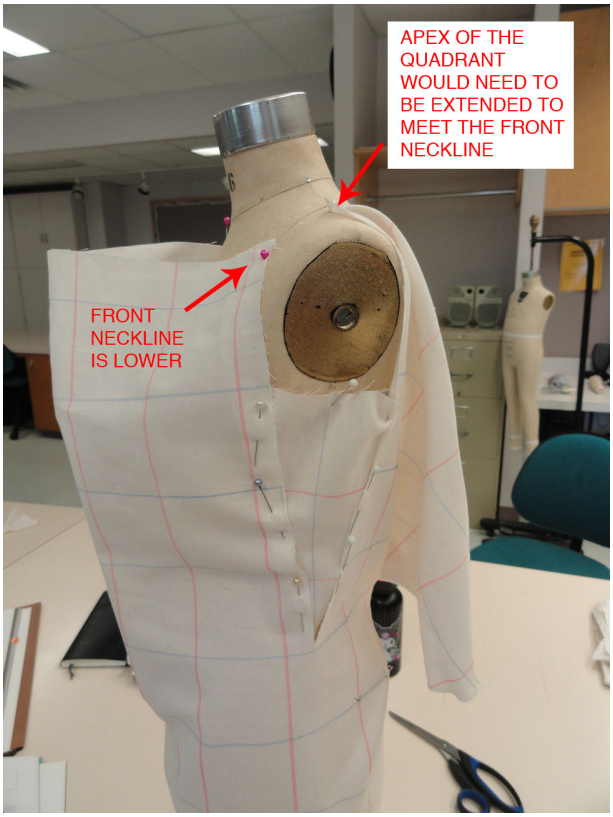

Figure 67: My initial interpretation where the front neckline is lower than the back. I concluded at the time that this meant the front edge would sit lower on the chest and the back edge would have to be extended to meet it.

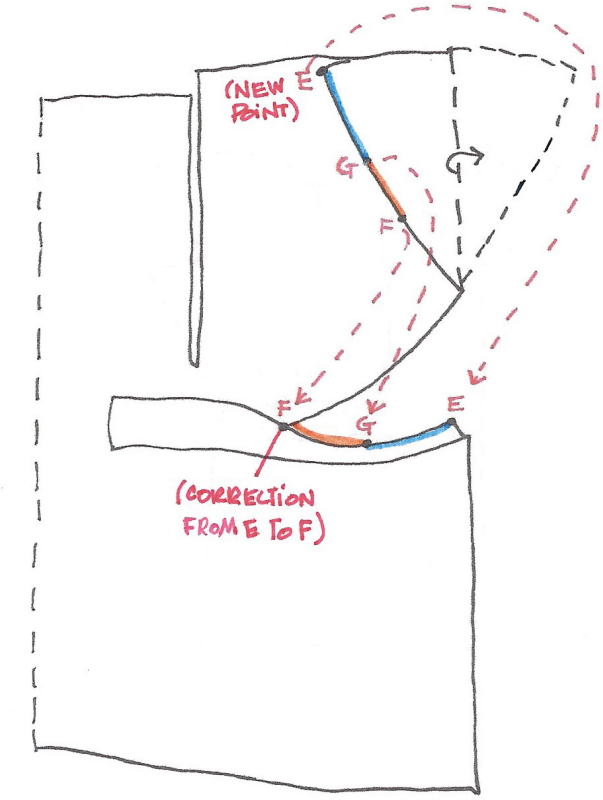

Figure 68: The top edge of the back skirt should read “F-G-E” from left to right which matches with the curved outer circumference of the quadrant or “wing” portion. A new point “E” should also be added on that segment.

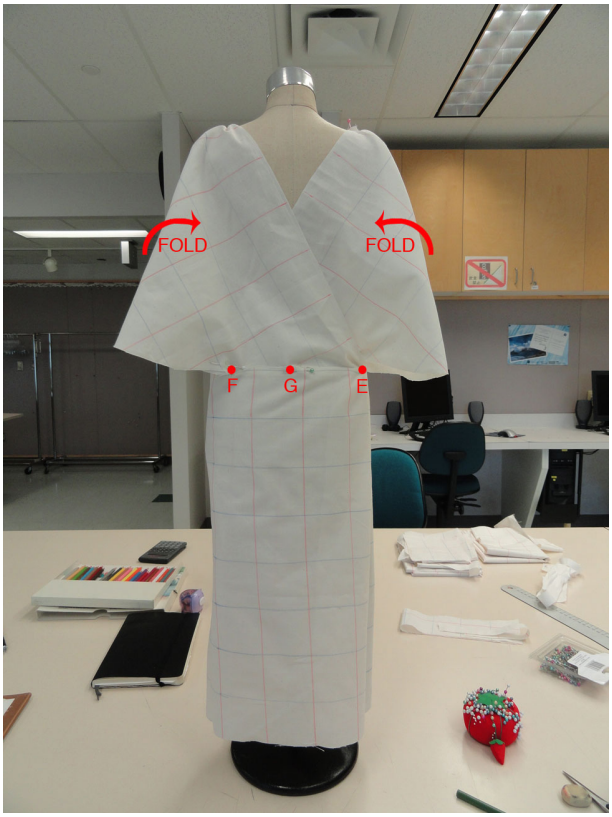

Figure 69: Matching the points "F-G-E" to the top of the back skirt as shown.

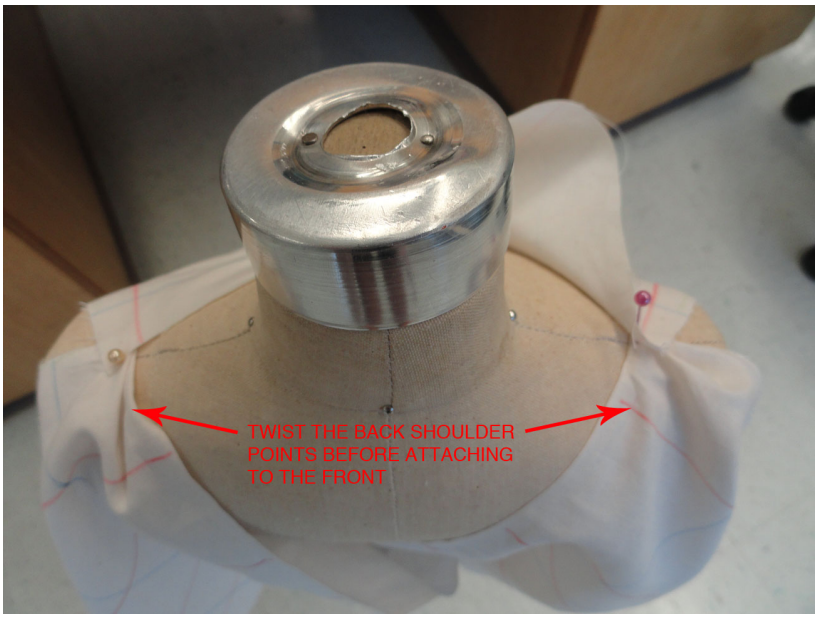

Figure 70: The back edge is longer because it has to have a tuck at the shoulder points before being attached to the front.

CONCLUSION

Personal Growth

In completing the five hands-on exercises I experienced various setbacks that led to learning some important lessons. Stumbling upon these challenges was an important part of this process and allowed me to question and explore solutions. It did not seem to matter if the issues were large or small. At times even the smallest detail had the largest impact on the overall process.

The challenges I faced during this project had the greatest impact on my general perspective. Through this process I have become more aware of how difficult it is to write technical guidelines. I have read numerous criticisms of the instructions in Kirke's book, stating that they are vague and difficult to follow. However, upon attempting to describe the technical process I underwent, I now have a greater appreciation for the art of writing this type of material. It is an arduous process that requires a great deal of reworking, editing and patience. Furthermore, this process has helped me to realize the significance of collaboration. As I reproduced one pattern after another, I not only relied on my own interpretation but was also affected by the various "players" - that is, the books, dress forms and other materials I used, but also came to rely on the advice and expertise of Bissonnette who was able to pinpoint my biases and pitfalls and offer solutions. Performing the exercises, therefore, became a much more a collaborative process than I initially anticipated. In the next section, I will

summarize the impact the project had on my technical skill sets, and how it contributed to my knowledge.

General Findings

In Pattern 1, fabric conservation was always forefront in my mind, which made me pre-plan and over-think every cut. However, this hindered my progress as a novice because it discouraged experimentation while problem solving. From this I learned that it was better to cut without hesitation, and, if mistakes were made, they could be patched up and remedied with fabric scraps. Doing it this way also allowed me to record the mistakes and the accompanying solution. From this pattern, I also realized that I relied on various methods to come to a solution. When I began, I had the intention of only using draping techniques, but instead, I ended up using images and diagrams from Kirke's and Bunka's books, as well as using flat-pattern markings as guides to help me accomplish the final product. It led me to conclude that Vionnet's design process was probably much more multifaceted than what I had originally assumed. The idea that a designer chooses either pattern-making or free draping might be anchored in a theoretical idea of how the design process should take place. It seems that the utilization of both might be a more realistic expectation. Perhaps this dichotomy in the world of fashion design may lead to further research.

Pattern 1 also showed a garment where the pieces are connected together to follow a consistent scheme. I believe Kirke chose this pattern because it reveals that the way it is constructed forms a significant part of its overall concept. The

idea that the construction of her garments was just as important, or sometimes even more than just the design concept alone, runs throughout the other exercises.

In Pattern 3, it was evident that the influence of current fashion trends ran deep and caused me to drape the pattern according to a twenty-first century idea of what is aesthetically pleasing, rather than how Vionnet may have intended it. I re-draped some elements alongside Bissonnette, which allowed for an objective eye to point out my biases. It is interesting to note that Vionnet's garments look so contemporary; it makes us forget that they are historical artifacts from a different time and place. Few designers can make this claim, which is part of Vionnet's genius. I believe Kirke suggested this pattern because it shows how a simple square shape can be turned into an elegant dress by simply rotating it on the bias. It is also an exercise focused on the tube and its possibilities when placed on the bias. This reveals Vionnet's understanding of fabric structure and how she integrated it with her design to achieve the overall effect. Although this pattern was seemingly straightforward, it also showed how subtle details like the angle of an armhole slit could make the difference in the whole draping process.

Pattern 14 is a dress with a three-quarter circular skirt where certain pieces on the bias are attached to pieces that are not. Many of its design features, such as the shape of the neckline and armholes, appear to be aesthetic choices but, when making the gown, one realizes that the grid of the cloth plays a major role in the final product. I believe Kirke suggested this pattern because she wanted us to learn and understand the complexity of attaching fabric that is not on the same

grain. The fact that Vionnet broke this rule was very interesting. While sewing bias to non-bias can lead to disaster as a stable part is attached to a changeable part, thinking the process through to address this problem is possible. Pre-stretching the cloth to address expandability and using special hand-sewing techniques is something we seldom keep in mind in contemporary garment production. Although seam distortion did not affect me at half-scale, I learned other things. For instance, my twenty-first century bias once again influenced how I draped this garment. I was quick to utilize methods and solutions that were more familiar to me rather than exploring new ones. This was largely due to my novice background and reliance on a smaller repertoire of garment construction knowledge. Vionnet and her staff would have undoubtedly mastered and employed various couture techniques that I had not considered. Nonetheless, using more modern techniques or changing some aspects of Kirke's work does not necessarily lead to a lesser product. There are ways we can modify the patterns in Kirke's book, using contemporary methods, without affecting the integrity of Vionnet's work. For instance, adding darts to the bodice can serve as one way to fit the dress for a different body or different ideal of beauty. It can also lead to a more expedited process as stretching, pinning and steaming is rather time-consuming and impractical for mass production. Examining what is essential to the piece and what can be changed will help Vionnet's legacy.

In Pattern 15, the importance of body shape became evident once more, as it influenced the type of dress form used and the shape of the final pattern attained.

This is significant in that Vionnet's fashion house created couture clothing that was tailored to the individual client. Therefore, when draping, we have to keep in mind that, certain aspects of the pattern may have been influenced by the body type of the wearer, and not by the design concept alone. I believe Kirke suggested this pattern for the same reasons as Pattern 14. She wanted us to understand the complexity of opposing grain directions, particularly in circular-cut garments. This may seem redundant but in this case the circular skirt changes grain direction without being connected at a seam. The three-quarter circular shape makes a transition from the bias at the front and back and on the straight of grain at the sides. This side is also where she chose to insert an opening hidden in what seemed to be a secondary design feature, a gusset.

Finally, in Pattern 23, I discovered that my heavy reliance on using pattern markings and images of the garment as guides in the draping process could hamper me. On the one hand, using these sources without great attention to detail in earlier exercises led me to miss important concepts, which in turn led to me using more contemporary practices in the final product. On the other hand, relying on them entirely lessened my problem-solving skills, as I relied too much on markings and instructions from sources where errors may have crept into the writing or editorial process. As a novice, I did not possess the experience or confidence to question the sources that I was using. From this, I learned that it is important to question not only my assumptions and methods, but also what I deem to be expert sources. I believe Kirke suggested this pattern because she wanted us

to see the ingenuity of Vionnet's draping process - she had created a garment that is mainly made of one piece of fabric. The use of gussets to create added volume for both the body and/or stylistic features was also very clear in this gown. This feature could be put to use for contemporary design. The economy of cloth, and the assembly of different iconic geometric shapes into one major piece, was also a great reminder of her early days in Callot Sœurs where recognizable pattern parts were fused into one. Making minimalistic one-piece garments was likely an evolving career process.

Recommendations for Novices

The order that the reproductions were carried out was solely based on the pattern numbers as they are placed in Kirke's book, which were not necessarily in chronological order as pattern 23 dates from ca. 1925 and was done after pattern 14 from 1932 and pattern 15 from 1937. There are numerous other ways in which the order could be approached. For instance, one could create them in order of the years Vionnet designed and produced them. The apparent simplicity of some patterns is often not enough to decide how complicated they are. Therefore, going by how it appears may not necessarily be a good method. I personally do not think there is an ideal order, but one thing I discovered during this project was that the lessons learned from one pattern could be applied to the next, so that in the end, the process of draping might become clearer and less intimidating. That being said, the order in which the patterns are reproduced probably does not matter, so long as the knowledge that is gained is constantly being developed and built upon.

The complicated aspect, of how all the various "players" affect the overall process and final product, is impossible to control. For instance, twenty-first century biases can always sneak in subconsciously. Our skill sets, and the mentors and instructors who influence our thinking, will undoubtedly have an impact on how we interpret the material. Through this project, I learned that there is not necessarily a wrong or a right way of doing something. In fact, it was more useful to recognize the limitations of technique, knowledge and skill, and use the challenges and pitfalls encountered along the way as triggers for a better understanding. Therefore, when reproducing these patterns, it is best to be mindful of the process and always to question why we take the steps, and choose the solutions, that we do. More specifically, we must be present and aware of the process rather than blindly copying what we see.

Future Research

The next step for me is to rethink and articulate what has been written for future publication. As discussed, the art of technical writing is an arduous task that needs to be constantly reworked and edited. This aspect of the text needs to be re-evaluated once more with the aim of making it even clearer and more accessible to the novice. Further reflection on the various details of the process may also be required. For instance, the project could be redone using a dress form that is accurate to Vionnet's time period and one that could mechanically rotate to emulate exactly how she worked. The muslin that I used was a solid white material where I had drawn the grid lines of the warp and weft using oil-based

pencil crayons. It might be worth performing some of the exercises using muslin where the grid lines have been woven in for greater accuracy. This project was also performed in a more personal and casual setting where I was free to explore the steps on my own. It might be interesting to see how the outcomes would differ if the same exercises were carried out in a more controlled or educational setting.

Finally, Kirke's own personal toiles that she reproduced from her study on surviving artifacts have been donated to the Los Angeles County Museum of Art (LACMA). It might be worth taking a trip to examine these artifacts first hand to verify or challenge some of the conclusions and solutions I have made. In the same light, it might be enlightening to access some of Vionnet's actual garments that are housed in the Musée Des Arts Decoratifs in Paris. In this archive, they also have some of Vionnet's actual patterns. It would be interesting to compare and contrast these originals with Kirke's interpretation and also with my own.

In conclusion, completing these hands-on exercises fulfilled my goal of learning about Vionnet's ground-breaking techniques through an industry veteran like Kirke. Draping her published patterns provided a way for me to understand and internalize concepts that are seldom described by dress historians. I was able to see how the interplay of draping, pattern-making and fabric structure contributes to the outcome of the final product. As a novice, I made a lot of mistakes and struggled with my twenty-first century tastes and biases in influencing how I created. However, these mistakes were inevitable and

necessary, and only by making them did I gain new discoveries and the ability to ask more questions.

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APPENDIX A

The following charts summarize the details surrounding the various people and elements that have influenced the draping process and the overall research.

Person and Role	Background	Time Period	Involvement
Therese Martinez-Yu (1980 —); researcher and student	Holds a Masters in Architecture and practiced in the industry for 8 years. Currently completing a Masters of Arts (M.A.) in Textiles and Clothing. Limited background in garment construction.	Studied Architecture from 2002-2005, and worked in the industry from 2005-2013. Enrolled in the M.A. program from 2010-2013.	Thesis project and pilot study
Dr. Anne Bissonnette (1966 —); thesis advisor	Holds three undergraduate degrees: Sciences, Fashion Design, and Art History. Holds two graduate degrees: M.A. in Museum Studies - Costumes and Textiles and Ph.D. in Museum Studies and History. Met Kirke in 1992 and has been in contact with her several times a year.	Studied Fashion Design formally in 1985-1988. M.A. from 1991-1993. Ph.D. from 2001-2004.	Thesis project and pilot study

Person and Role (continued)	Background (continued)	Time Period (continued)	Involvement (continued)
Betty Kirke (1925 —); designers, conservator, author.	Holds an undergraduate degree in Fashion Design. According to Bissonnette's research, worked as a designer from 1949-1972, as a conservator from 1971-1991 and began researching the work of Vionnet in 1974.	According to Bissonnette's research, Kirke enrolled at the School of the Art Institute in Chicago in the Fall of 1945 where she completed the bulk of her coursework. She obtained remaining credits much later to complete her degree.	Pilot study

Book	Author	Date Published	Audience
Madeleine Vionnet	Betty Kirke	Japanese edition (Kyuryudo Art Publishing): 1991 English edition (Chronicle Books): 1998	Art book for a wide audience (historians, instructors, students, professional sewers, and hobbyists alike)
Vionnet	Bunka Fashion College	2002	Technical book for fashion students
Modern Pattern Design	Harriet Pepin	1942	Reference book about draping for home sewers

Material	Type	Specifics	Reason for Use
Muslin	Medium weight, ivory (non-bleached)	Warp and weft grid lines drawn on fabric using oil-based pencil crayons	Availability
Dress form	1/2 scale	Circa 1940's silhouette	Availability
Pant form	full scale	Child's silhouette, used only for Pattern 15	Availability

APPENDIX B

Glossary of Terms

Term	Definition
Armhole	Openings in a garment where the wearer inserts his or her arm.
Bias	All angles within the warp and weft grid of woven cloth.
Centre Back	Vertical axis of symmetry running through the back of a person, body form or garment that splits it symmetrically in half.
Centre Front	Vertical axis of symmetry running through the front of a person, body form or garment that splits it in symmetrically in half.
Gusset	A piece of fabric inserted into the garment to provide more volume or shape.
Jabot	A piece of fabric that often drapes in a cascading format. In the case of the Kirke book, she uses the term to describe a triangular section of a piece of fabric that is not sewn and cascades freely to become part of the hem of a garment.
Neckline	Opening through which the wearer can insert his or her head.

APPENDIX C

Notification of Approval - Delegated Review

Study ID:	Pro00017567	
Study Title:	Interviews with Betty Kirke and Fashion Educators	
Study Investigator:	Therese Martinez-Yu	
Study Supervisor:	Lisa Given	
Date of Informed Consent:	Approval Date 10/26/2010	Approved Document Letter of Information & Consent Form

Thank you for submitting the above ethics application to the Education, Extension, Augustana and Campus Saint-Jean Research Ethics Board (EEASJ REB). I have reviewed your application and, on behalf of the EEASJ REB, approved it as of October 26, 2010. The approval will expire on October 25, 2011.

A renewal report must be submitted prior to the expiry of this approval if your study still requires ethics approval at that time. If you do not renew before the renewal expiry date, you will have to re-submit an ethics application.

Sincerely,

Dr. Stanley Varnhagen
Chair, Education, Extension, Augustana and Campus Saint-Jean Board (EEASJ REB)

Note: This correspondence includes an electronic signature (validation and approval via an online system).