

Bernat Klein's Couture Tweeds

Color and Fabric Innovation, 1960-1980

Article by Jaqueline Field
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Originally the term «tweed» connoted a neutral-colored, rough, predominantly masculine woolen fabric.¹ Now refined and redesigned, a variety of serviceable tweeds occupy an important place in the modern textile landscape, and the term tweed is applied to an additional, more feminine category of cloth consisting of lighter fashion fabrics, often textured and kaleidoscopically colored. Familiar now, they were something new in the mid-twentieth century. Fashion tweeds emerged in the late 1950s/early 1960s, a time when tailored couture garments owed much of their appeal to bold plaid-like fabrics. In the evolving fabric world of the early 1960s some very distinctive and original tweeds from Scotland stood out. Designed by Bernat Klein, these wool and mohair tweeds exerted an immediate influence on notions of tweed design. They captivated and inspired the couture world.

In the Europe/British fashion milieu Bernat Klein's work is well-recognized and even revered. A recent retrospective exhibition honored his achievements.² Yet Bernat Klein is little, if at all, recognized in the United States. According to a *Women's Wear Daily* report, his mohair tweed were a big success and excited as much interest in the country as they did in Europe. Nonetheless, the name Bernat Klein failed to make a lasting impression on this side of the Atlantic, probably because it did not receive much exposure.⁴ In the 1960s, when the leading fashion publication, American *Vogue*, featured fashions made of identifiable Klein tweeds, they were either un-attributed or credited to his agents or to clothing companies, and not to the textile designer himself.⁵ As a result, whether under labels from top U.S. garment manufacturers or in fashions from French and other couture houses, Klein's landmark fabrics languish unrecognized in American costume collections. Regrettably, it is more the exception than the rule for textile designers to receive appropriate recognition.

Regarding Bernat Klein fabrics, the aim here is to define the work of Klein for the American audience. To this end Klein tweed characteristics will be described and the time frame defined. The names of leading couturiers known to have used Klein fabrics will be provided to help facilitate identification, and, perhaps, lead to appropriate attribution. As a start, the author's research discovered five examples in U.S. collections. One is in the collection at the Costume Institute at the Metropolitan Museum of Art, New York; one in the Museum at the Fashion Institute of Technology, New York; and three at the Fashion Institute of Design & Merchandising Museum Foundation, Los Angeles.⁶ From detailed photographs Bernat Klein positively identified the fabrics as couture tweeds made by his company.⁷

Background

Now 84, and a British citizen, Bernat Klein was born in Yugoslavia into a textile merchant's family. He grew up with an elegant mother who was interested in fine clothes, and a father who dressed in British Cheviot tweeds and Crombie coats.⁸ Because he was exposed to a textile milieu as a child, it is hardly surprising that he harbored an early interest in textile design.⁹ But, as he relates, nothing in his formal education encouraged such an aspiration.¹⁰ Nonetheless, he made his way to Jerusalem's Bezalel School of Art, and progressed from there to Leeds University, England (1945), where he studied textile technology. His career began while Britain was still recovering from WW II, and its textile industry dominated by a conservative old guard. New products and modern designs exhibited at the 1951 Festival of Britain heralded national revitalization, but industrial change did not move fast enough for Bernat Klein. After frustrating experiences with several textile manufacturers, in 1952 he founded his own textile company in Galashiels, Scotland, the heart of traditional tweed-making country.¹¹ It was a place with a pool of skilled textile workers, which proved highly advantageous as his company expanded.¹²

Klein launched his company, *Colourcraft*, with a mere four looms.¹³ At the start the company experimented with making rugs, ties, and headscarves. The latter, a popular early 1950s British accessory, proved highly marketable.¹⁴ Within the limitations of this modest product, Klein demonstrated his technical skills and color mastery. The well-designed, fine lambs-wool squares in solid colors or very subtly colored plaids and checks brought substantial orders from several national chain stores. *Colourcraft* quickly expanded and began to outsource weaving. Major clients included the important Marks & Spencer chain. Viewing Klein's elegantly colored products, Lord Marks, of Marks & Spencer, exclaimed, «These are not scarves- these are Viennese waltzes.»¹⁵

Breakthrough

Klein's ambitions and creativity did not stand still. At *Colourcraft* the late 1950s was a period of experimentation and product development as Klein pursued his highly personal vision. By the early 1960s the company manufactured and marketed the sophisticated outcome of this effort which included the perfection of a special yarn dyeing process and the use of novel yarns to manufacture couture tweeds. Bernat Klein fabric burst onto the Paris scene in Coco Chanel's spring 1962 collection.¹⁶ Paris had never seen the like before. At the time Klein's fabric was an entirely new breed of tweed- lightweight wool and mohair in which lustrous surface fibers in light tones such as pale pink and champagne melded into beautifully hazy houndstooth checks and other designs FIGURE 1. One commentator noted that Klein's «thick, soft, incomparably lightweight tweeds woven in muted vegetable colors of carrot, lettuce and cream [were] used over and over by Chanel.»¹⁷ In France, *Elle* magazine featured the fabrics in a multi-page spread. Receiving his own copy of *Elle* at home in Scotland, Klein recalls, «It was thus that I learned that I was suddenly confronted with the dizzying fact that the idea we had been working on for three years was not merely acceptable to top fashion houses in Paris, but was so good it was being promoted in preference to other cloth.»¹⁸

Pioneering Colour Effects

Always interested in color, Klein found particular inspiration in the way spots of color created cloth like effects in pointillist Georges Seurat's 1884 painting, *Une Baignade, Asniere*.¹⁹ He took special note of the color interaction in small individual areas containing light, medium, and darker values of color.²⁰ It became his ambition to find a way to create multi-colored fabric with vibrant color similarly generated by spots of color. Klein also was influenced by Paul Klee's work, by various other artists, and by the paintings he began to produce himself in 1960. His thickly textured abstract paintings played an important role as springboards for his designs, and for his efforts to translate painterly color and texture effects into fabrics. In turn, his textiles often inspired new paintings FIGURE 2. During interviews with the author, he always stressed that understanding his painting-to-textiles process is essential to the understanding of his textiles.

In the world of commercial textiles, Klein's color concepts were highly novel and not easy to achieve because, in Klein's words: «Yarns are usually one color (when looked at from a distance of two feet or more), and they are cylindrical, with flat surfaces. Seurat's painting taught me that for the eye to notice and then combine the colors it sees, these colors should be of an optimum size: that of a brushstroke or small fingernail.»²¹

Most commercial looms accommodate a maximum of a half dozen single colored yarns. Because this restriction inevitably imposes a hard-edged look to check and stripe color effects, the problem was to overcome the limitations and find an economical way to get many colors onto the loom.²² It took long trial and error, working with dyers who were willing to do «not done things», to master a means of producing multi-colored yarn that would weave into fabric with the desired small blobs of color.

The next task was to learn to control the process in order to repeat the same multi-colored effect in quantity. By clamping skeins twice (a process akin to tie-dye) in a procedure referred to as dip, or space-dyeing «each series of space-dyeing cycles would result in at least eight colors (four intended colors and four tones in each hank). If four such separately dyed yarns were to be woven together, the resulting cloth would contain something like thirty-two colors, many more than could before be mechanically woven together...»²³ Color mixing is complex, and some color combinations work more successfully than others; therefore the problem of producing a whole series of four-color combinations was a enormous task. Klein performed the masterful feat of working out a final standardized color card containing twenty controlled color combinations ready to use in his fabrics.²⁴ Those in fashion and textile circles recognized Klein's pioneering work. An article in the winter 1962-63 issue of the trade journal *Wool* observed that, «Bernat Klein's cloths have been described as the first real breakthrough in color and design for over half a century.»²⁵

Yarn Design

The early square heads carves were made of fine, thin lambs-wool yarns. For his fashion fabric yarns, Klein employed a wide assortment of fibers: wools, cottons, silks, mohairs, cashmeres, linens, and various man-made fibers. For Bernat Klein, the cloth-making process tended to begin with yarn design.²⁶ Undaunted by the complexities of yarn spinning, he ranged over the whole gamut of yarn structures. He devised novel variations and used nibs, boucles, gimps, brushed mohair, mohair loops, doubled yarns, and a narray of slub yarns in original ways. Use of color-streaked slub yarn was one means of achieving his desired spots of color and texture. Describing the construction of this expensive yarn, Klein explained that the slub was made with *top* (the fat strand of brushed fibers ready for spinning) composed of two or more distinct ²⁷ layers of different colored fibers. This layered top was fed slowly into the machine.²⁸ The end result was a slub yarn in which the different colors occurred in random streaks as seen in the white/gray/ tan thick-thin slub in FIGURE 3 and the red/vermillon/ magenta fat slub yarns in FIGURE 4.

Doubling (twisting two thin yarns together) was an old process used in traditional tweed making to create low-key color effects.²⁹ With his layered yarns, Klein took doubling in a whole new direction. Exploiting the potential, he coupled colored layers to make novel multi-colored yarns. In fabrics -twill and herringbone coatings- these yarns created textured brilliant- color spangled effects. Some multi-colored layering resulted in an extreme thin to very thick slub yarn, sometimes called bubble slub, with as many as four colors bursting out here and there irregularly throughout the yarn. This color-striated bubble slub created complex colorful and dramatic three-dimensional effects FIGURE 5. An idea of the way Klein's unique multi-colored tweeds looked made up into a garment may be observed in an American *Vogue* advertisement for a Bonnie Cashin loose kimono-like coat made of what is unmistakably one of Bernat Klein's bubble slub tweeds.³⁰

Klein pioneered the development of brushed-mohair yarn-something virtually unknown in 1960.³¹ Glossy mohair fibers took color brilliantly. Klein used brushed mohair, multi-colored by his new space-dye process, in many of his textiles. In some tweeds space-dyed mohair yarns created discontinuous lines of color or hatched/broken check effects. One such tweed made up into a 1962 Laird Knox coat was advertised in American *Vogue* with the description: «beige with rust brown in an elusive almost check effect...one of the most exciting fabrics around-a mix so light it is a surprise to lift.»³² In other Klein fabrics, multi-colored mohair generated the desired mix of many fingernail sized spots of color, such as one tweed consisting of an all over blur of intermingled spots of pale blue, bright pink, Prussian blue, violet, and mushroom FIGURE 6, LOWER LEFT. Variegated brushed-mohair tweed might be considered Klein's signature fabric. In 1963 Klein expanded his variegated yarn market. He launched lines of space-dyed brushed-mohair and other fancy yarns for home knitting. The yarns offered home knitters a novel option, and contributed to new hand knitting concepts burgeoning in the 1960s. Klein's wife, Margaret, designed commercial patterns for sweaters and neat little suits to be knitted in mohair, linen, and other Klein fancy yarns. It is notable that the new *hand-knit look* developed at this time, especially in variegated mohair, has become iconic and timeless, remaining popular with a segment of hand-knitting devotees FIGURE 7.

Bernat Klein Cloth and Couture

In the meantime, a major shareholder's investment in 1962 funded substantial expansion. *Colourcraft* became *Bernat Klein Ltd.*³³ The next years, the mid-1960s, might be called the heydays of Bernat Klein tweeds. The company showed two luxury couture collections and one general collection annually. A team of technical designers helped translate Klein's concepts

onto drafts from which weavers made pattern blankers in the time-honored way. International clothing manufacturers and stores chose from the general and less expensive fall collection of around one thousand samples- not all of which were manufactured.³⁴ Each spring and fall Klein selected about one hundred samples for the deluxe couture collections. In the end, only a choice few couturier picks went into final production.

Klein's French agent was Dumas Maury, 30 Avenue de L'Opera, Paris. Klein also maintained showrooms at 138 Park Lane, London. Through various agents, notably Chantal Fabrics in the United States, his tweeds reached worldwide markets. Pursuing his belief that «all women should be well dressed, rather than fashionably dressed and this should be affordable» some Klein couture fabrics were made available in Britain through retailers, where they entranced a following of fashion students and home sewers, many of whom still recall the halcyon days of Klein tweeds.³⁵

Klein's tweeds provided the couture with fabulous raw material to work with FIGURE 6. In 1963, Pierre Cardin, St. Laurent, and other collections featured Klein's effervescently- colored wool coatings and space-dyed brushed- mohair tweeds. That year Guy Laroche chose textured two-toned Klein slub tweeds for his high-buttoned suits. In 1964 St. Laurent selected subtle-colored Klein mohair check tweeds similar to those favored by Chanel in 1962 FIGURE 8.³⁶ At the time, the Klein tweed repertoire included fabrics incorporating yarns with small and large color-streaked slubs that created non-repetitive spots of color; space-dyed multi-ply yarns often giving discontinuous color effects or small spots of color; and dramatic bubble slubs with striations of many different colors. In some light open- weave fabrics, slight nibs or gimps provided random texture (1963-1964).

Klein explored, and breathed new life into houndstooth weaves.³⁷ One of his dramatic versions- -an outsize pink and red check- appeared in a 1963 Louis Feraud boa-trimmed coat.³⁸ Under Klein's hand, houndstooth often lost its relentless uniformity and hard definition in mists of random texture and space-dyed fibers. Instead of light/dark, or color contrasts, sometimes he devised monochrome hounds tooth designs in which the check pattern was subtly defined by alternating areas of texture such as solid-color raspberry bumpy boucle and raspberry space-dyed brushed mohair. In a Bonnie Cashin 1965 suit, the oversize Klein houndstooth consists of areas of smooth doubled green and yellow wool yarns alternating with fuzzy space-dyed mohair which blurs the edges of the green/yellow shapes FIGURE 9. With imaginative combinations of colors, textures, and exotic yarns he created what, for want of a better word, this author calls

«deconstructed» houndstooth effects FIGURE 6. While many of the novel hounds tooth and other textured tweeds appear to be loosely woven, most were constructed in a type of double or compound weave so that the novel surface yarns were firmly anchored by a plain base weave of thin worsted wool visible in FIGURE 5 AND FIGURE 6, top left.

Velvet ribbon tweed was, perhaps, the most exotic of all Klein fabrics. Warps incorporated quarter-inch-wide rayon velvet ribbon with various combinations of wool and mohair FIGURES 10 and 11. When Klein's fabulous «fantasy» fabrics burst seemingly from nowhere in 1962, they astonished the couture world. In 1964, his new ribbon tweeds caused an even greater sensation. They dominated collections that year.³⁹ *The London Times* described them as «looking hand made». The *Scotsman* newspaper pronounced them «THE fabric of the season», and *The Observer* called them Klein's «all conquering fabric».⁴⁰ Couturiers reserved particular variations and colors: blue- green for Lachasse, sharp green for Paterson, and a golden orange for Hardy Amies. «Velvet tweed scores again» trumpeted the *Drapery & Fashion Weekly*, reporting that Balenciaga used a dark brown/black loop mohair velvet ribbon version.⁴¹ Paterson created a stunning red/ shocking pink wool and velvet tweed coat with along trailing scarf collar FIGURE 12.⁴² Pictured in American *Vogue*, Marc Bohan's (Dior) velvet tweed ensemble was described as made from «foamy tweed, fuchsia and purple, with navy- blue velvet.»⁴³ Another Bohan (Dior) creation-an exotic golden-ginger Klein velvet tweed coat, lined and collared with red fox-- must be one of the runway showstopper of all time. It was a triumph, featured on the cover of *Art et la Mode*.⁴⁴ Klein followed velvet tweed with a wool and chiffon tweed fabric, incorporating synthetic ruched organza ribbon sourced from a supplier in Lyon, France.

Klein's couture fabric output dates from 1960 to 1966, with some versions in production up to 1968.⁴⁵ Fashion houses known to have worked with Klein fabrics include: Balenciaga, Balmain, Bohan (Dior), Chanel, Cardin, Fabiani, Feraud, Griffe, Lanvin, Lapidus, Lachasse, Molyneux, Ricci, Scherrer, St. Laurent, and Simmonetta. British designers included Amies, Cavanagh, Evans, Hartnell, Mattli, Paterson, Steibel, and Irene Gilbert in Ireland.⁴⁶

While Klein tweeds sold extensively in the United States, for the reasons explained above, designers and manufacturers used Klein cloth without knowing it. Even if they did know, it did not mean Klein's name would be acknowledged. For example Bonnie Cashin knew Klein's work well. Nevertheless, the advertisement for her loose coat made of unmistakable, stunning Klein red, gold and olive bubble-slub tweed (similar to the sample in FIGURE 5) reads: «That *Ayers Look*. Bonnie Cashin sees tweed rimmed with suede in a Noh jacket over a hooded

jersey blouse and stalk skirt. L. S. Ayers Company, Indianapolis.» Clearly the designer and manufacturer's brand name, and other marketing considerations took precedence. Thus, as in general practice, the textile designer's name did not appear.⁴⁷ Between 1961 and 1966 Klein's unique fabrics and clothes made of his tweeds appeared in *American Vogue*. Usually the copy accompanying the illustrations ends with «fabric by Chantal», or «fabric by Dumas Maury». Leading manufacturers sold their fashions made of Klein tweeds through Neiman Marcus, Bergdorf Goodman, Marshall Field, and other top stores. It is hoped that this article will help bring some of these American garments and some European Klein couture fashions to light.

Of American designers, Bonnie Cashin had the most opportunity to become familiar with Klein textiles. From 1964, and several years following, she annually spent time working as a stylist for Ballantyne, the cashmere knitwear manufacturer located in southern Scotland.⁴⁸ Klein was a fiber and yarn color consultant for Ballantyne. Engaged in entirely different divisions, their paths did not cross in the workspace, but they knew each other socially.⁴⁹ During Cashin's time in the area many local mills were busy making Klein tweeds. From the names *Sills Cashin* noted beside some archive samples, and from the Klein textiles identified in actual garments, it is apparent that Cashin designed using Klein general and couture collection tweeds.⁵⁰

To date, five garments incorporating Klein tweeds have been located in American collections: four are in Bonnie Cashin garments and fifth in a coat attribute to Cashine. Other Cashine/Klein examples appear in photographs in *American Vogue*. How extensive was Cashin's use of Klein tweeds? Is there a relationship between her 1960s reputation as a designer and her use of the fabulous Klein tweeds? The topic invites further research. On another note, because Cashin knew about Margaret Klein's hand-knit designing and the cottage industry that supplied the hand-knit garments marketed through Bernat Klein's later enterprise, it seems possible that this was the source of her inspiration for *The Knittery*, a business Cashin established in 1972 with English and Irish hand-knitters making garments under her supervision.⁵¹

Endings and Beginnings

Klein's custom-made yarns and couture textiles were luxurious, time-consuming and expensive to manufacture. By the 1960s, rising wool prices added to production costs. Unwilling to compromise, Klein resigned from the company in 1966.⁵² He moved on to expand his already considerable consulting activities. He formed Bernat Klein Design Consultants Ltd. and became a leading, highly-respected design and color consultant, attracting awards and an international clientele from the fields of fashion, furnishing fabrics, flooring, knitwear, interior design, and

others.⁵³

Commissioned by British Enkalon in 1969 to help launch new dress-weight polyester knits, Klein designed and colored a series of large abstract and futuristic print designs.⁵⁴ Again, he produced designs that were unlike anything seen before. Hailed for their originality, the prints created a stir, as had Klein's original couture tweeds before them. The silk-like polyester jersey prints became part of a new Bernat Klein enterprise established in 1969- 1970. This venture included a return to fabric manufacturing and making some of his earlier mohair textiles. Once again, couturiers employed Klein's fabrics, but the new operation was not business-as-before. By 1973, Bernat Klein Ltd. was a direct marketing company selling color co-coordinated Klein tweeds, printed jersey knits, and handknits.⁵⁵ To make products available to the widest possible market, Klein sold through his own stores as well as department store concessions in major cities. The product line was based on garments made from a limited fabric range, including multi-colored brushed-mohair, boucle tweeds, several fine wool twills, solid color and printed light polyester knits. The latter was described as having a shantung texture and a silk-like drape and handle. To facilitate coordination, fabrics and garments were offered in color groups including ranges of purples, blues, turquoises, greens, grays/ neutrals, golds, browns, and reds FIGURE 13.

The key feature of Klein's 1970s catalogs -color coordination- offered a fail-safe way to mix and match and be sure of a successful outfit. This was an extension of the *Klein Personal Color Guides*, Klein's novel take on the color-guide theme he first introduced in 1963. Aware that fashion colors do not suit everyone, Klein's theory was that rather than slavishly following fashion colors, individuals are likely to look best in colors that suited them, and that those colors were close to, or related to their own eye colors. Based on detailed painted studies he made of the hues visible in the irises of the six most common eye colors, he designed six guides.⁵⁶ After selecting the guide matching their respective eye colors, individuals opened the wallet-sized *Klein Personal Color Guide* to find recommendations for appropriate harmonizing, contrasting and neutral colors. By the 1980s, especially in the U.S., the original ideas underpinning Klein's color co-ordination philosophy and color guides seem to have coalesced with all the other developments that morphed into numerous versions of what came to be known as «dress to success». In her 1981 book, *Color Me Beautiful*, another color guide proponent, Carole Jackson, looked to the seasons. Based on hair and skin tones, she categorized individuals as Spring, Summer, Autumn, or Winter, and promoted the idea of a person wearing colors from her designated season.⁵⁷

The first Klein mail-order catalogue offered a limited line of classic clothing by Swedish designer Eric Sporrang. Later, other designers, among them Janet Medd (Edinburgh College of Art faculty), expanded the line to include more coats, suits, jackets, blouses, long and short skirts and pants. Margaret Klein designed variegated brushed-mohair hand-knit sweaters, cardigans, hats and scarves to coordinate with and to complement the print and tweed garments. The catalog and stores ceased operations in 1981. The hand knitting cottage industry continued for another decade. It seems unlikely that items from the Bernat Klein 1970-1980 stores and catalogs found their way into American collections. Nevertheless, it is possible that some couture clothing made of multicolored mohair wool tweeds did.⁵⁸

Textile innovator, colorist, painter, and visionary, Bernat Klein's accomplishments are many. Of them all, it is not an exaggeration to say his highly original 1960s couture tweeds stand out as a singular achievement. With his space-dyed yarns, doubled-yarn variations, brushed-mohair tweeds, color-streaked bubble slubs, deconstructed houndstooth, imaginative yarn combinations, and painterly effects, Bernat Klein put his own special stamp on tweed design. Bernat Klein made a major contribution to fashion in that era, a watershed period in the history of dress, marked by the rise of the youth generation, a new fashion genre and the rapid advance of new synthetic fibers. It is hoped that this introduction will stimulate interested readers to pursue additional information and become more familiar with Klein and his work. A further hope is that curators and students will be encouraged to mine American costume collections for mid-1960s couture garments and high-quality ready-mades, and reap the reward of discovering examples of Bernat Klein fabrics. Confirming attribution will be, of course, another task (Appendix).⁵⁹ Increased awareness will draw attention to the fact that Klein's fabrics continue to be a lasting source of inspiration and influence on the field of fashion and fabrics- currently resurgent (2000-2007) in large colorful hounds tooth and multi-hued textured tweeds. All of this highlights the need to direct more research toward hitherto neglected fabric designers, as much for their original work as for the role that work will play as a muse for future generations of designers.

Appendix

Bernat Klein produced many different types of tweed. The characteristics offered here may help identify some of the most striking Klein fabrics used in couture and by top manufacturers. For identification, also see *Sidenote 59*.

- Rich complex «painterly» color effects.
- Non-standard yarns.
- Fabric with thick /thin yarns giving an all over textured fabric in which many colors recur

randomly.

- Space-dyed mohair and wool yarn in which color changes along the length of the yarn.
- Multi-colored space-dyed yarn creating «pointillist» spots, or a general hazy effect of many colors.
- An appearance of discontinuous or broken lines of color. Scattered thin or thick vertical lines or scattered randomly-crossing thin or thick lines.
- A rich overall effect of discontinuous color as seen in the coat detail in FIGURE 10.
- Fabric with fat yarns showing distinct layers of several different colors-as seen in the white/gray/tan slub in FIGURE 3, and the red/magenta/vermillion in FIGURE 4 and in the multi-colored multi-ply yarns in FIGURE 6.
- Doubled yarns-two or more different- colored yarns twisted together. See the thin yellow/green example in FIGURE 8 and examples among other yarns in FIGURE 10.
- A thin plain anchoring weave on the back of loose-appearing slub and brushed-mohair tweeds. The backing can sometimes be seen from the front, as in the slub tweeds in FIGURE 5, and top left in FIGURE 6.
- Unusual yarn combinations such as layered multi-colored slub with loop mohair in FIGURE 3, or boucle with brushed mohair.

Notes

1. Martin Hardington, *The Illustrated Dictionary of Fabrics* (London: Studio Vista, 1978), 38.
2. Bernat Klein and Lesley Jackson, *Bernat Klein: Textile Designer, Artist, Colorist*. Exhibition of Klein fashion fabrics, garments, knits, other textiles and paintings at The Scott Gallery and Hawick Museum, Scotland, August-October, 2005.
3. Pressclippings. Bernat Klein Archive. Heriot-Watt University Archive, Records Management and Museum Services, Galashiels, Scotland. Cited in Klein and Jackson, 12.
4. The Bernat Klein Archive Pattern Book BK 6127 contains numerous references the Chantal Fabrics. Heriot-Watt Archive.
5. Examples: see *American Vogue*, January 15, 1962, 35; August 15, 1962, 74; September 15, 1964, 136; September 1, 1964, 185, 190; January 15, 1964, 49. Of course, it is common practice to promote the fashion designer or the garment manufacturer's special brand or label, and not the textile designer.
6. Bonnie Cashin (ca. 1964) cat. no. 1979.431.59 a-c. New York: Metropolitan Museum of Art. Photographs for publication purposes were not obtainable.
7. Bernat Klein, interview by the author, August 23, 2006. Klein made the identification from photographs of textiles in garments from collections at Boston Museum of Fine Arts, the Costume Institute at the Metropolitan Museum of Art, New York; the Museum at FIT (Fashion Institute of Technology), New York; the Fashion Institute of Design & Merchandising Museum Foundation, Los Angeles, CA; Rhode Island School of Design, Providence, RI; and from Martha J. Bute of Iowa State University. The author thanks curator Kevin Jones for his assistance in locating items in the Fashion Institute of Design & Merchandising Museum Foundation collection.

8. Crombie refers to a luxury brush-faced tweed made by the Scottish Crombie Woolen Mill. Founded in 1805, Crombie later established the eponymous clothing company still operating today; for Klein biographic details see Bernat Klein, *Eye for Color* (London: Bernat Klein Scotland with Collins, 1965).
9. Bernat Klein, interview by the author, August 23, 2006.
10. Ibid.
11. Klein worked for Tootal Boardhurst Lee in Bolton, England, and for Munrospun of Edinburgh and Galashiels.
12. Galashiels: *A Modern History* (Galashiels: Galashiels History Committee, and Ettrick, and Lauderdale District Council, 1983), 77.
13. The name Colourcraft was chosen because it expressed his passion for color and emphasized «the color was his firm's justification of existence.» *Eye For Color*, 51.
14. Ibid 47.
15. Ibid, 117.
16. Ibid, 13.
17. *Evening Standard* (London), March 11, 1963. Press clippings. Bernat Klein Archive. Cited in *Bernat Klein: Textile Designer, Artist, Colorist*, 13.
18. *Eye for Color*, 13.
19. Ibid, 62.
20. Bernat Klein is a colorist. Through his own paintings he explored color first hand. Well-versed in art history and color theories, he is familiar with color concepts and the eye's physiological response to color, something known to and exploited by impressionist painters. This phenomenon is explained in M. E. Chevreul's (1839) seminal study, *The Principles of Harmony and Contrast of Colors*.
21. Bernat Klein, interview by author, August 30, 2005, High Sunderland, Selkirk, Scotland; *Eye for Color*, 118; *Bernat Klein: Textile Designer, Artist, Colorist*, 59.
22. *Eye for Color*, 118
23. *Bernat Klein: Textile Designer, Artist, Colorist*, 59; «Space Dyeing,» Bernat Klein Archive, Heriot-Watt University Archive, Records Management and Museum Service.
24. Bernat Klein, interview by author. Space dyeing was contracted out to a dye house in Galashiels; also see *Eye for Color*, 119.
25. Press clippings. Bernat Klein Archive. Cited in *Bernat Klein: Textile Designer, Artist, Colorist*, 12; American recognition of the unusualness of Klein tweed is evident in an advertisement depicting Klein fabric, which is not labeled as such, but is obviously Klein and reads: «Coat- beige streaked with rust brown in an elusive almost check effect. This [coat] shape is played way down ... for the benefit of the most exciting fabric around-a mix so light it's a surprise to lift.» *American Vogue*, January 15, 1962, 35.
26. Hardington, 150. There are thousands of different yarns made in a variety of ways, but all yarns are first spun as a single thread, and multiplied to form thicker yarns, or are combined by more complex methods to make fancy yarns.
27. Bernat Klein, interview by author, August 30, 2005.
28. Ibid.
29. Clifford Gulvin, *The Tweedmakers. A History of the Scottish Fancy Woolen Industry 1600-1914* (New York: David & Charles: Newton Abbot and Barnes & Noble Books, 1973), 192.

30. American *Vogue*, September 15, 1964, 25. The advertisement is for L. S. Ayers Company, Indianapolis.
31. After months of improvisation, Klein acquired one of the first machines in Britain to make brushed mohair. Later, most of it was sourced from British Mohair Spinners, Keighly, England, or from France; *Eye for Color*, 118; *Bernat Klein: Textile Designer, Artist, Colorist*, 12.
32. American *Vogue*, January 15, 1962, 35.
33. A subsidiary of the Imperial Tobacco Company acquired a major shareholding in the company, which provided the infusion of capital needed for expansion and marketing.
34. Malcolm Campbell sample book of Klein designs includes samples for the broader market--many lightweight skirt/suit check/stripe/plaids for Jaeger, Wallis, Marks & Spencer, British Home Stores, Aston Imports, and Chantal. Bernat Klein Archive. Heriot-Watt University Archive.
35. The few tweed garments included in the 2005 *Bernat Klein: Textile Designer, Artist, Colorist* exhibition were home or dressmaker-made and carefully preserved by their original owners.
36. *Bernat Klein: Textile Designer, Artist, Colorist*, 14, 15
37. Houndstooth is a check pattern made by four threads of a dark color alternating with a lighter color in both warp and weft using a hopsack, or 2-up and 2-down weave. Dogtooth is a check pattern using four threads of a dark color alternating with four threads of a lighter color in both the warp and the weft in 2-and-2 twill weave. Hardington, 137, 130.
38. *Bernat Klein: Textile Designer, Artist, Colorist*, 14.
39. *Bernat Klein: Textile Designer, Artist, Colorist*, 38.
40. July 12, 1964; July 24, 1964; August 2, 1964. Pressclippings. Bernat Klein Archive. Cited in *Bernat Klein: Textile Designer, Artist, Colorist*, 15; Bernat Klein interview by author: velvet tweeds were woven on regular power looms, The heddles' eyes were enlarged to accommodate the ribbon, and a lena structure was used to build the fabric. The fabric was compressed and wound onto the cloth beam without any problem; piece lengths were 60-70 meters. Ribbon tweed cost around £20 per yard. (At this time, a store clerk's weekly wage was £3-£4.) Ronald Paterson's red velvet long tweed coat, made to order, was advertised at 180 guineas (£200). Velvet tweeds became too expensive to manufacture; also see Designers Pattern Books BK 6/1/1/1 and BK6/1/1/2/7. Bernat Klein Archive. Heriot-Watt University Archive.
41. September 4, 1964, press clipping, Bernat Klein Archive. Cited in *Bernat Klein: Textile Designer, Artist, Colorist*, 15.
42. *SHE Magazine*, n.d., 62 Image provided by, and used with permission of Heriot-Watt University.
43. American *Vogue*, September 1, 1964, 185. The poor quality of the 1960s black and white magazine print does not do justice to the outfit or to the Klein ribbon tweed. The fabric credit is «Mohair tweed by Dumas Maury,» Klein's agent.
44. *Bernat Klein: Textile Designer, Artist, Colorist*, 15.
45. After Klein resigned in 1966, the new company management continued to produce versions of some his fabrics for several years.
46. See *Bernat Klein: Textile Designer, Artist, Colorist*.
47. American *Vogue*, September 15, 1964, 25.
48. *Bonnie Cashin: Practical Dreamer*. The Museum at the Fashion Institute of Technology, New York, September '9, 2000-January 6, 2001. Exhibition catalog, .n.p.
49. Bernat Klein, interview by author, August 30, 2005.

50. Bonnie Cashin was associated with garment manufacturer Sills and Company (1947-1977), designing for Philip Sills for twenty-four years. *An American Institution: Designer Bonnie Cashin*, exhibition program Shippensburg State College, '982.

51. *Bonnie Cashin: Practical Dreamer*. Catalog, n.p.

52. The major shareholder wanted to increase the return on investment. Under pressure to change or cut costs, Bernat Klein resigned from the company in 1966.

53. Examples: Seventeen Bernat Klein furnishing fabrics (ca. 1969) for Margo Fabricsof Gateshead, Durham. Victoria & Albert Museum, london.

54. *Bernat Klein, Textile Designer, Artist, Colorist* catalog, 19. Using photography and photo screen-printing Klein magnified details from his own abstract paintings into unusual, appropriately space-age-looking designs for the (then new and high tech) poly knit dress fabrics. His use of relatively recently developed large-scale photographic screen-printing to enlarge and transform small mundane images into simplified, hard-edged, oversized designs/graphics parallels the work of another avant garde artist and contemporary, Andy Warhol.

55. Bernat Klein catalogs, author's collection.

56. Color guides see *Eye for Color*, 97-103; The six *Klein Personal Color Guide* eye colors: #1 Green/Blue; #2 Blue; #3 Green; #4 Hazel; #s Brown; #6 Dark Brown. Bernat Klein Archive: 10/4 and BK10/4/1 to BK10/4/1/6. Heriot-Watt University Archive, and the author's collection.

57. The author acknowledges the reviewer who reminded her of the author and title of this «color seasons» publication.

58. Examples of Bernat Klein tweed and jersey ca. 1970-1975 in British collections: T.82-1992: A Hardy Amies' woman's suit of Bernat Klein multicolored blue tweed with a coordinating blue jersey knit «blouse» attached to the skirt, ca.1970, and T483: , & 2-1995: Bernat Klein jersey skirt and jacket, ca. 1975. Victoria & Albert Museum, London.

59. To assist with identification the author recommends the 2005 full color exhibition catalog *Bernat Klein: Textile Designer, Artist, Colorist*, currently (2007) still available for purchase. Catalogue and airmail shipping \$25. Send an international money order to the value of £,8 British pounds payable in British pounds to Bernat Klein. Mail to Bernat Klein, High Sunderland, Galashiels, Scotland TD, 3PL,Great Britain, United Kingdom. Other sources to help identification: Six colored fabric illustrations in Bernat Klein, *Eye for Color* (Scotland: Bernat Klein with Collins, London, 1965) and the textiles in the Bernat Klein Archive, Heriot- Watt University Archive, Recordsand Museum Services,The Scottish College of Textiles, Netherdale, Galashiels, Selkirkshire, Scotland.

FIGURE 1

Bernat Klein lightweight space-dyed mohair and worsted wool tweeds of the kind used by Chanel in 1962. Photographs by Jacqueline Field. Courtesy of the Heriot-Watt University Archive, Records Management and Museum Service, Galashiels, Scotland.

FIGURE 2

1969 Bernat Klein abstract painting, Yellow Ochre. Oil and woven textiles on canvas. Courtesy BernatKlein.

FIGURE 3

Front detail Bonnie Cashin ensemble, 1964. Ensemble fabric detail, Bernat Kleins lubby three color multi-ply wool and loop mohair tweed. The Museum of the Fashion Institute of Technology (2000.53 a/c). Photograph Jacqueline Field. Courtesy the Museum of the Fashion Institute of Technology.

FIGURE 4

Front detail Bonnie Cashin coat, c. 1965. Coat fabric detail, Bernat Klein tweed in gray/green with red/ magenta/vermillion streaked slubby wool creating random color spots and discontinuous color effects. Donor Philip

Sills. Courtesy of the FIDM Museum at the Fashion Institute of Design & Merchandising, Los Angeles, CA. (if 80.1965.147) Photo Credit: Brian Sanderson.

FIGURE 5

Bernat Klein multi-colored slub yarn tweed (c. 1962-1966) including one slub yarn constructed with layers of yellow, green, pink, and salmon and another slub yarn constructed with layers of red, pink slub, magenta, and vermillion. The thin dark gray yarns are from the worsted wool backing weave used to anchor this loose fabrication. Photograph by Jacqueline Field. Courtesy of the Heriot-Watt University Archive, Records Management and Museum Service, Galashiels, Scotland.

FIGURE 6

Bernat Klein couture tweed examples (1962-1966). Top left, houndstooth broken by random slubs and random color streaks in the doubled/multi-ply slub yarn; top right houndstooth softened by variegated colors in space-dyed brushed mohair; lower left space-dyed brushed mohair creating fingernail sized spots of «pointilist» color; lower right painterly effect created by space-dyed mohair and doubled/multi-ply extreme slubs in a barely noticeable houndstooth. Photographs by Jacqueline Field. Courtesy of the Heriot-Watt University Archive, Records Management and Museum Service, Galashiels, Scotland.

FIGURE 7

Bernat Klein catalog, early 1970s. Bernat Klein space-dyed brushed mohair in hand knitted sweaters. Photograph by Jacqueline Field. Courtesy of Bernat Klein.

FIGURE 8

Bernat Klein brushed-mohair check couture tweed (1964). Photograph by Jacqueline Field. Courtesy of the Heriot-Watt University Archive, Records Management and Museum Service, Galashiels, Scotland.

FIGURE 9

Back detail Bonnie Cashin suit, Fall 1965. Suit fabric detail, Bernat Klein oversize houndstooth tweed of doubled wool and space-dyed mohair. Donor Philip Sills. Courtesy of the FIDM Museum at the Fashion Institute of Design & Merchandising, Los Angeles, CA. (# 80.1965.12.10) Photo Credit: Brian Sanderson.

FIGURE 10

Bernat Klein velvet tweeds, 1964. Gold rayon velvet ribbon and brushed mohair tweed; blue rayon velvet ribbon, worsted wool, space-dyed mohair, and gimp in a production sample. Photographs by Jacqueline Field. Courtesy of the Heriot-Watt University Archive, Records Management and Museum Service, Galashiels, Scotland.

FIGURE 11

Back detail coat. (Bonnie Cashin attributed) c. 1965. Coat fabric detail, Bernat Klein velvet ribbon tweed with a variety of multi-layered, doubled and space-dyed yarns creating discontinuous stripes of color. Museum purchase. Courtesy of the FIDM Museum at the Fashion Institute of Design & Merchandising, Los Angeles, CA. (#2005.5.25) Photo Credit: Brian Sanderson.

FIGURE 12

Ronald Paterson coat, 1964. Bernat Klein rayon velvet ribbon, slub and multi-ply wool tweed. Courtesy of the Heriot-Watt University Archive, Records Management and Museum Service, Galashiels, Scotland.

FIGURE 13

Bernat Klein catalog, early 1970s. Color coordinated outfit: Bernat Klein space-dyed brushed-mohair hand-knit beret; Bernat Klein space-dyed brushed-mohair and wool tweed coat; Bernat Klein abstract print design on polyester knit pant with solid color polyester knit shirt. Photograph by Jacqueline Field. Courtesy of Bernat Klein.

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