

Feature



Madeleine Vionnet: Virtuoso Geometrician *Sandra Ericson*

An expert on Madeleine Vionnet's draping and cutting techniques discusses her revolutionary approach to clothing design and construction.

Madeleine Vionnet personified her time, and her genius was the ability to translate diverse cultural influences into clothing that mirrored the period. She called herself a geometrician because she brought together the elements of kinetic form, fabric behavior and the cutting process in the same way an architect would.

Interestingly, those three elements were exactly what modern innovation in the 1920's and 1930's was offering her -- new possibilities, both technically and culturally. The key to understanding her mindset is to

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keep these three elements foremost in the mind -- every piece is a statement of their interrelation.

Influences

The possibilities presented to her came from timely discoveries in such diverse fields as medicine, in which further knowledge of muscles influenced the direction of her seams; chemistry, where the ability to dye highly twisted crepes provided fabric that collapsed so beautifully on the bias; international trade, which brought the kimono from Asia with its sleeve cut on the straight and worn on the bias; art, particularly Cubism, which emphasized the planes of the body and the Craftsman and Art Deco influences of handwork and streamlined style.

She simply was the best at being in her time and her time rewarded her. We now understand that this 'time' has turned out to be the common denominator of perennial style and taste -- we will always look to it for the benchmarks.

Principles

On a practical level, Vionnet turned her youthful sewing training (then done by every girl) into a profession out of necessity, fueled by her ambition and her economic dependence on her hands. She came to understand that designing and creating entails more self-mastery than instruction so

she practiced the personal restraint that became a trademark, believing that less cutting equals better design.

She draped on the half scale to enable her to see the whole figure up close. Being able to evaluate the design without having to constantly step back kept her mind focused on proportion and balance as she cut the design. And she used natural forces like gravity and the natural behaviors of the fabrics to yield a free beauty, one that is not forced. I believe that these were her three most important working principles.



Madeleine Vionnet, 1923. Photo by Theresa Bonney.

Fabrics

As her couture house grew and industry gave her more textiles to work with, she eventually focused upon a range of fabrics that had certain characteristics in common. In closing her house in 1939, she avoided the synthetics issue, which many of her contemporaries had to grapple.

She chose natural fabrics with smooth surfaces that were loosely woven enough to ‘collapse’ and settle on the body but had enough friction (from twisted yarns or the weave) to prevent clinging to it; fabrics that could be weighted by their own volume or by added decorative detail; fabrics whose finish and fiber made controlling them easy.

Silk or wool crepe with its high twist and somewhat random weave was a favorite, along with silk chiffon, silk tulle, wool



Crepe romaine pajamas, 1931. Photo by Hayningen-Huene.

twills, silk velvets, lame and crepe satins. Most lacked strong surface texture and therefore provided a canvas for hand-worked detail that created textural patterns such as

pintucks, faggoting or fringe. Most also had a balanced thread count to assure equal downward fall on the warp and the weft, making it possible to cut a bias garment without building in a center front seam.

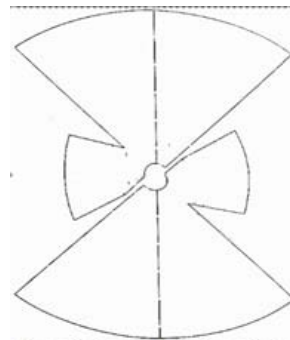
She was able to predict exactly what a fabric could do in a given design and often had fabric woven to her specifications to guarantee that it happened. By so thoroughly understanding the fabric she was able to play it like the instrument it was and ‘ask’ it to do amazing favors for her -- it seemed only too happy.

Patterns

Because she started with a body, most people assume that she cut the patterns around the body but it seems to me that she more often used the form to determine how the patterns she cut could and would fall on the body. I believe there is ample credence to the idea that she frequently designed the patterns, not the clothing, and used her half scale mannequin to experiment in placing the cut cloth on the body so that the textile would perform the best.



Her self-description as a geometrician



Wedding dress, 1936. Left sleeve extends from front body, right from back body.

is more authentic if we change the emphasis from cutting garments on the form to placing patterns on the form, slashing expertly in the process to blend the body with the previously cut geometric shapes.

Which shapes? Vionnet's favorite was

the quadrant (a quarter circle or a portion), then the rectangle or square, the triangle and the circle. Most of her work originated with these simple shapes and graduated to increasing levels of complexity in the use of these shapes.

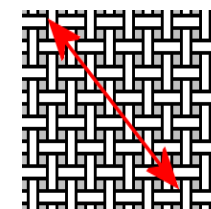


Square Dress, 1922.



Crepe quadrant dress, 1932. Photo by Edward Steichen.

She became famous for her use of the bias and she used it in two ways: either the garment was cut on the bias and worn on the bias or it was cut on the straight grain and worn on the bias.



On bias: diagonal to the weave, Source [Wikipedia](https://en.wikipedia.org/wiki/Bias_(textiles)).

Either way could and did use simple geometric shapes to conform to the body and also allowed the fabric to express all its innate qualities.



Fabric draped on the bias. Source: [CalTech](https://www.caltech.edu/).

She was very prolific and progressed from simple shapes and patterns to great numbers of styles using



Cartier necklace used as an evening gown halter neck strap, 1937. Photo by P. Horst.

twists, wraps and folds, reversed directions, optical illusions. All the while she insisted that the closures be incorporated into the cut, avoiding the use of functional hardware. If

there was 'hardware' on the piece it was acknowledged in the design and served as a focal point or to control shape; she consistently worked in that high reach of design in which all elements must be *authentically* used in the creation of the artwork.

She committed herself to these geometric parameters and principles, and became a master at going vertically deep into the application of their techniques. She



"About Town" Misses three-piece wool suit.

also eventually became unable to work any other way, and that inability contributed to the narrowing of her design range as late 1930's fashion used stiffer fabrics and structured construction.

She believed so completely in the integrity of using the fabric to deliver the design that even when using the stiffer fabrics, she cut styles in the same fabric-dependent way to create the new silhouettes -- still determined not to use under-structure, like shoulder pads, to maintain them. Today, we celebrate her integrity, transparency and great skill but at the time, fashion ruled.

Fit

Ever aware of the natural female body and, I think, her own sense of responsibility to women -- after all, she must have experienced the same pain that many now feel when rejected by the business world -- she always sought to free women from the physical and social binds that clothing could impose. Yet I believe she too, like many now, felt it was also important to give women sex appeal, elegance, and the personal stature that can be gained from appearing beautiful. So, it was quite important to shape her clothing to women's bodies, and she used many very clever means to do so. With decorative stitching like faggoting, smocking or pintucks, careful always not to impede the collapse of the bias exactly where she needed it, she shaped the waists and shoulders and necklines of her clothes, simultaneously molding and

stabilizing and making the treatments an essential design element.

Vionnet used the natural behavior of twisted fabric to shape the bust line or hang a garment from the shoulders or compress the waist; she turned and slashed and folded fabric to reveal the body and match the creases of such manipulation to the conformation of the figure and the direction of the muscles. She integrated all the elements constantly -- one can almost sense her mind working to solve each design problem as the piece progressed.



Vionnet design, 1933.

In an inversely related way, more



Vionnet design, 1922.

creativity is often achieved in the face of more restrictions. Vionnet proved this by binding herself to another principle that all clothing should hang from the shoulders, never distracting the wearer by pulling in any of the four directions. She made certain the designs were weight-

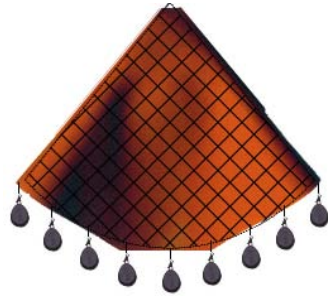
balanced all around and used both simple yardage and applied weight to assure that the piece felt secure. Therefore, we see very full skirts pulling a bias bodice down, giving a streamlined yet fitted look with no darts.

Other means to weigh the garments included wide ribbons, deep tucks, fringe, applied bands, heavy tassels on points, beading and roses. She also applied weight to smaller areas; for instance, if a scarf or sash was thrown over the shoulder, there may be a fur band on the end of it to be sure it did not fall off.

She worked all the same segments of a composition together and in the same way that an architect would -- there is, after all, only a difference in scale between the personal environment of our clothing and that of our homes.

Finish

Here at the end, we can go back to her beginning when she learned in her childhood to sew perfectly, to finish her handwork expertly whether it was a pocket or a peignoir. She had acquired high standards the hard way, but used that knowledge exquisitely in her couture masterpieces.



Vionnet stretched fabric on the bias using weights. She would say, "Le Biaïa fait son travail" (The bias has done its work).

The treatment of edges, usually not the subject of great attention, becomes an entire school of techniques and skills, their success made more obvious by the lack of sewn-in linings or facings. She used tiny snaps on bias seams to let the bias collapse in between them; she created thin chiffon slips to wear in lieu of linings and used the 'picot machine' with its double bobbins and needles to make a hemstitch that could be cut apart, leaving a fine edge-stitch on a single layer. She invented methods of setting in cut shapes and strips that maintained the grain and drape exactly, working the fabric in such a way that years later hems would never dip and ruffles were not crushed.

Madeleine Vionnet became an icon for the best designers of the 20th Century and now into the 21st. She seemed beyond the virtuoso level at the time, and still has very little competition today.



Sandra Ericson is the Director of the Center for Pattern Design in St. Helena, California and a leading educator in the Clothing and Textile field. She chaired the department and courses at City College of San Francisco for 28 years. Her personal research has lead her to become one of the leading experts on the work of Madeleine Vionnet. She teaches classes and lectures on draping in the style of Madeleine Vionnet. Visit the [Center for Pattern Design](#) web site for additional information.

Draping in Half-Scale

In October 2009, the Association for Sewing and Design Professionals exhibited 41 half-scale garments in Betty Kirke's book, *Madeleine Vionnet*, "Threads Magazine" No. 147 ran an article on them. Senior Technical Editor Judith Neukam includes photos of several in her [Dec. 23 2009 blog](#).

Sandra Ericson uses two types of half-scale forms in her Vionnet draping classes. The Dress-Rite half-scale form is hand molded of dense foam and covered with a heavy knit. It is available in sizes 0 through 16 in two-size increments.

MySize Barbie is a plastic three-foot tall Barbie doll that is available in toy stores and on eBay. Sandra prepares them for her classes by removing the heads, adding lightly padded moulage covers, and mounting them to disk bases.

The Center for Pattern Design [on-line store](#) offers the Dress-Rite form and other half-scale products.



Drapes by students in Sandra Ericson's Vionnet class on MySize Barbies and commercial form