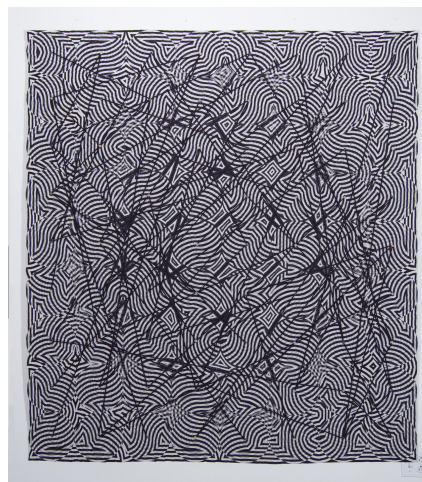
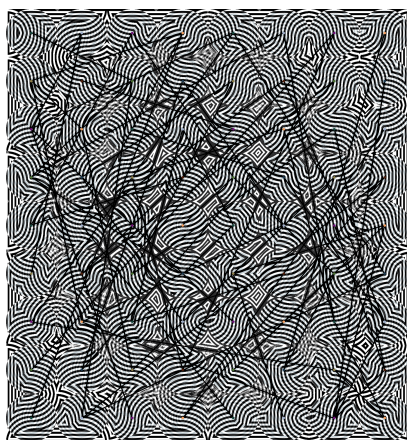


**NEW DIRECTIONS:** Examining the Past,  
Creating the Future.

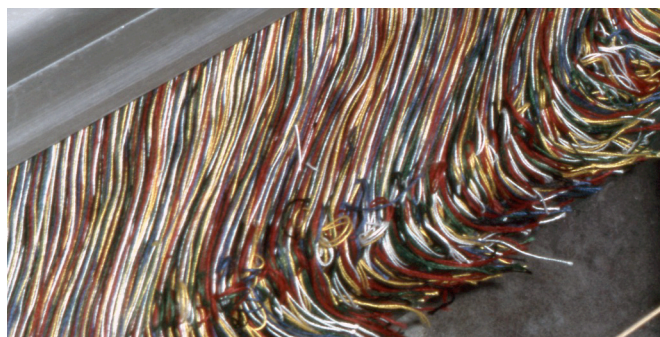
## Textile Art: Connecting the Virtual and Material In My Work

Janice Lessman-Moss

The transference of information from the virtual realm to the physical realm via mechanized production has expanded options for many designers and makers of objects. While the connection of computers and looms with their common binary operation systems provides for a seamless transition between domains. As an artist and long time weaver, aware of the historic relationship of both tools, I feel that this approach to designing and making enhances and expands creative possibilities, while providing a direct extension of the traditional (woven) language.



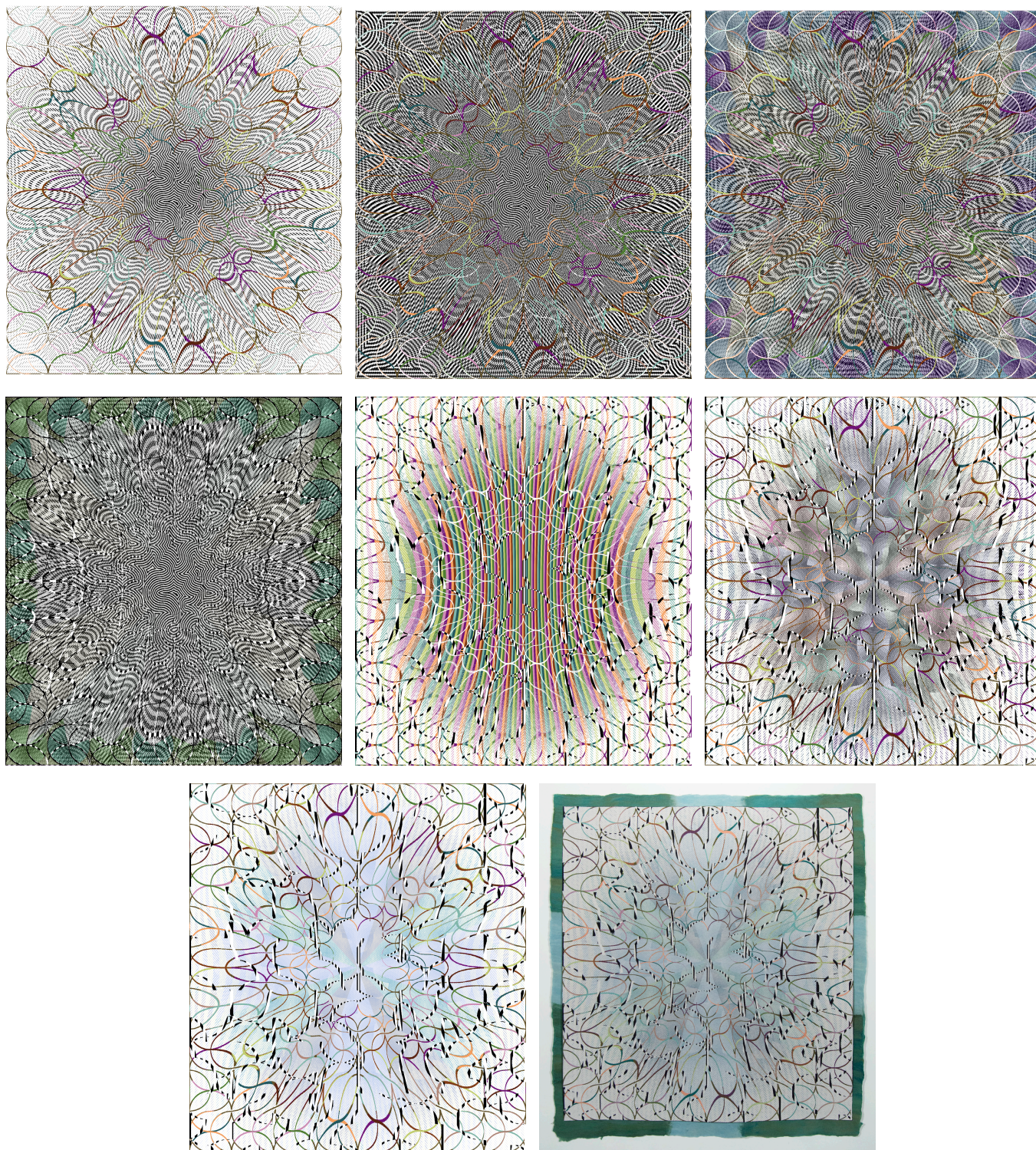
*Digital design created in Photoshop® (left) compared with a photograph of the actual mill weaving (#398, ©2010, 71x65").*



*Six color rotation of threads on the jacquard loom at the Pure Country mill in North Carolina.*

Digital designs created for jacquard warp tapestry, depend on a unique engagement of structure and color. This type of weaving, produced on an industrial power loom with a standard rotation of colors in the warp and the weft threads, echoes the output of inkjet printing. Fine multi colored threads in the warp and slightly larger black and white ones in the weft intersect in a field of minute dots of color establishing a varied palette through optical color mixing. Although this phenomenon is one of the assets of weaving in general, this warp tapestry process emphasizes color in a distinct way. As a result, graphic images created on the computer screen will accurately reflect the actual output at the loom.

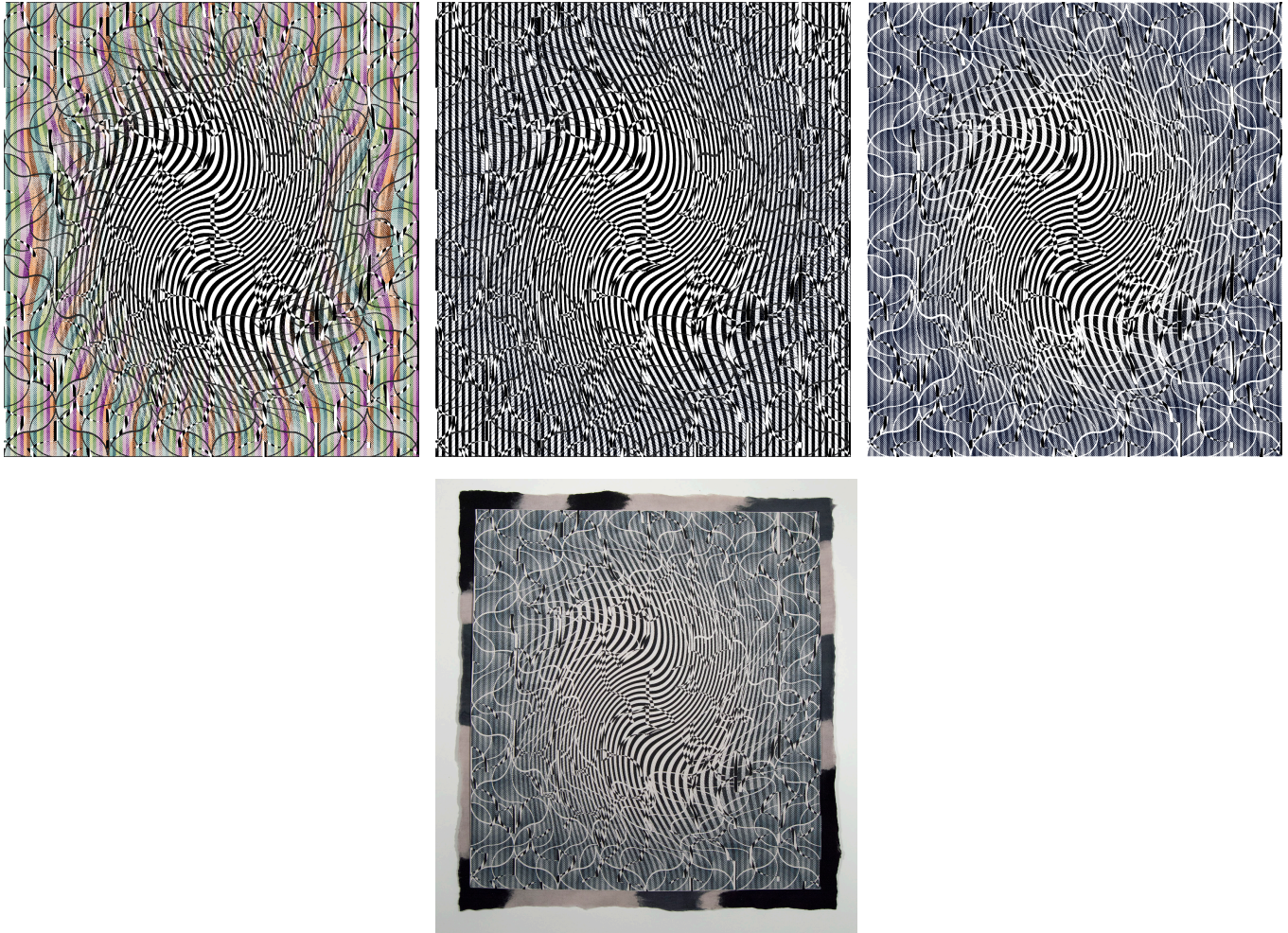
To illustrate my method of designing for mill tapestry I'm going to quickly move through a select series of digital variations. The permutations reveal steps in the process of invention – some small, some large.



*Digital designs with the final woven output on the bottom right. (#431, ©2013, 74x69", digital jacquard, handmade felt)*

The final digital design is a fairly accurate representation of the actual weaving.

As an artist/designer/craftsman, I appreciate the opportunity to make discoveries through numerous variations in my digital drawings. Using the tool box in Photoshop® and the generative options available in this ubiquitous software, I can work carefully, with mathematical accuracy when I want to, but there is still sometimes an element of surprise as parts of the design, composed on different virtual layers come together in unexpected ways. So what may have started out very methodically can evolve into stream of consciousness actions that take the design to an unforeseen conclusion. ....And, I must admit, it is interesting to have an idea captured in cloth without any manual labor on my part!



*Three designs selected from the series of explorations along with the actual weaving. (#432, ©2013, 75x65", digital jacquard, handmade felt)*

While the mill weavings emphasize the digital realm, my interest in the material/the tactile, the manual, compels me to also work with hand weaving. It is the repetitive nature of construction and connection of form and surface replete with metaphors that continue to inspire me and provide a foundation for my work.

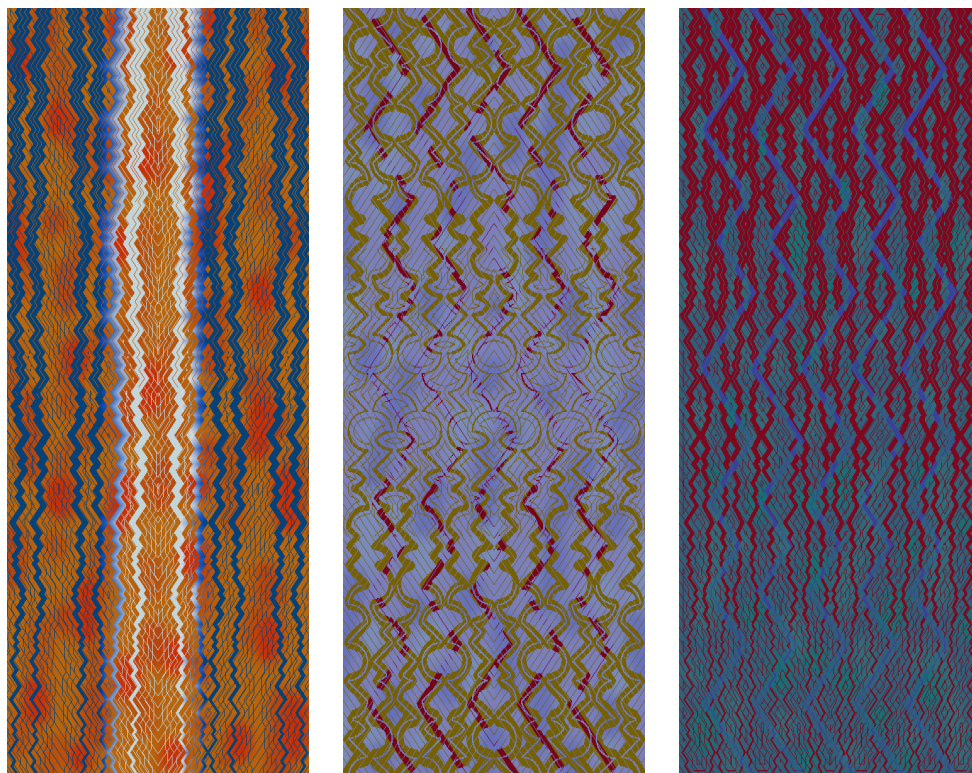
As an avid walker, I find parallels in the activity of my body moving in space, the accumulation of steps - to the accumulation of picks in the process of weaving. It was with this in mind that I decided to

introduce a weft ikat into my weaving to add another layer of pattern to complement the textural clarity of the weave structures. With each insertion I shift the position of the resisted areas to establish an organic connection along the length of warp while remaining fully present to the process of construction.

In this red weaving, created on the TC2 loom, the gold zigzag line is created through the use of shifted weft ikat.

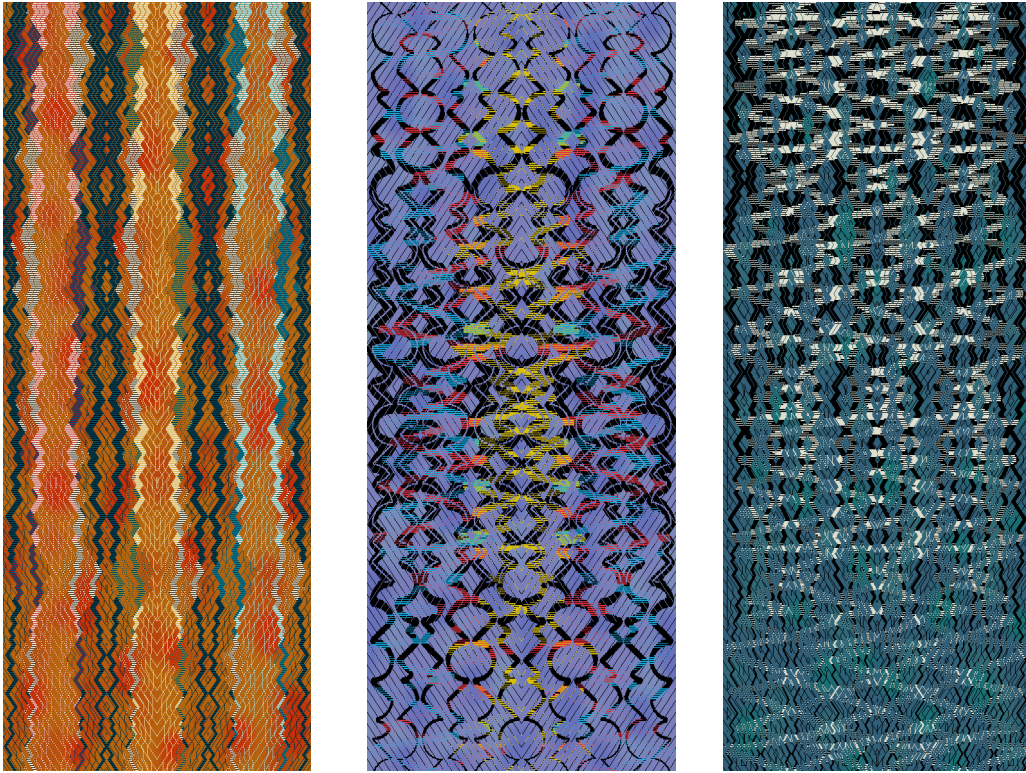


*#424 Random Walk Red, ©2013, linen, 31"x25.75"*



*Digital designs for the Local Journey series*

The compositions for these hand weavings, designed to be woven on my TC2 loom, evolve through similar iterative/digital techniques as those used on the mill weavings. But the successful translation of the graphic images requires considerable labor and decision-making after the initial design stage. The coloring/dyeing/painting of the yarns or other linear elements and manipulation of the materials before, during, and after weaving provides a satisfying balance of the digital and material hand.



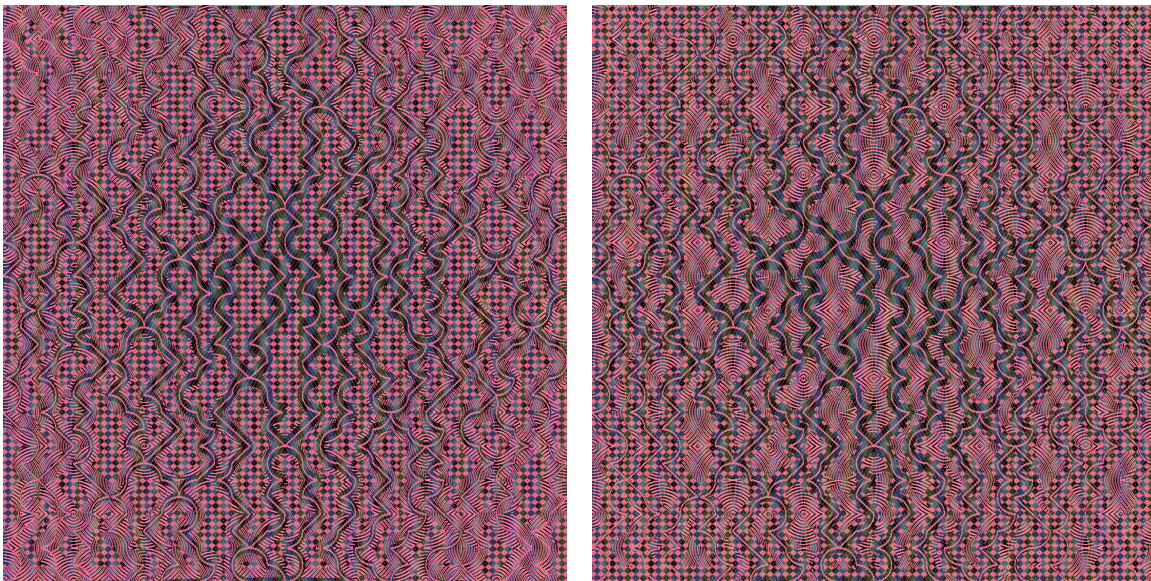
*This 2<sup>ND</sup> set of designs for the Local Journey series attempts to more accurately capture the spirit of the shifted weft insertions.*



*On the left, ikat resisted paper yarns are waiting to be painted with ink as seen in the next image. These yarns will be used as the weft in the blue section of warp seen installed on my TC2 loom.*



*#433a Local Journey (Orange), #433b Local Journey (Blue), #433c Local Journey (BlueGreen), all ©2014, linen, paper yarn, painted warp, ikat and painted shifted weft, each 34.5x16.5”.*



*These two designs from the series reveal the effect of optical color mixing on the character of the prospective piece.*

Painting the warp allows me to create three separate weavings of contrasting color along the length. Dyes with subtle hue and value variation are applied within each discrete section. As a result, the color fields will be atmospheric rather than flat, adding another layer of interest to the interaction of warp and weft.

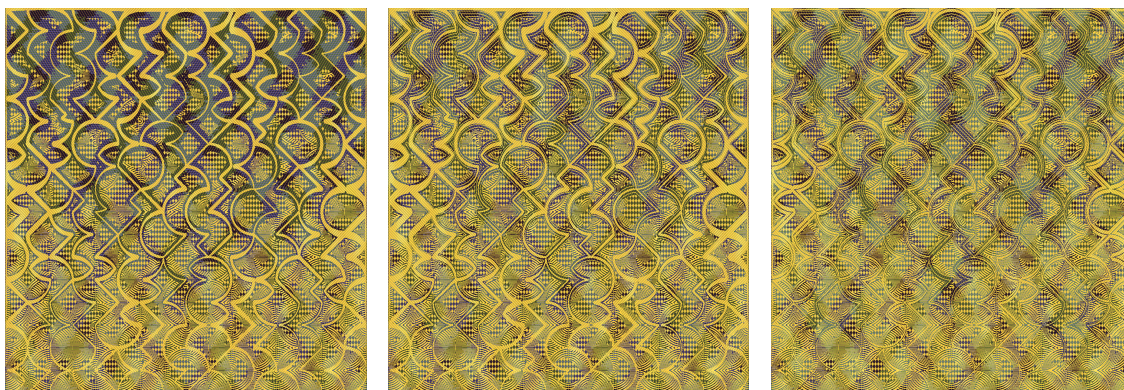


*The warp is so long that it is laid on the floor for painting. Two weft colorways are seen drying in the middle image before the linen yarns are wound on shuttles to be woven in alternating picks.*



*#435 Dusk Walk, ©6/14, silk, linen, digital jacquard, hand woven TC2 loom, 57x57"*

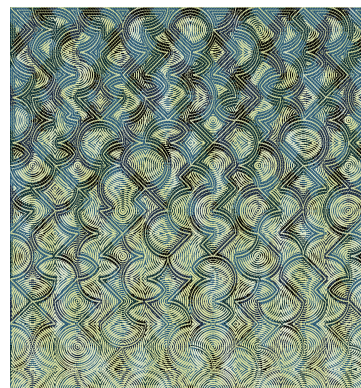
All of the weavings reflect my interest in abstract systems, rooted in the geometry of the circle within the square (manifested through the interaction of the digital, material, mechanical and manual). Pattern is a natural outcome of the process of weaving, from the most minute network - formed by the intersection of a single warp and weft - to the most complex large scale motifs/arabesques. Color reflects and enhances the character and visual energy of the composition while identifying the topography of overlaid patterns of different scale and clarity.



*Three of the designs from the series created for weaving #436.*



*#436 Random Walk Sun, ©6/14, silk, linen, digital jacquard hand woven TC2 loom, 58.5x57.5"*



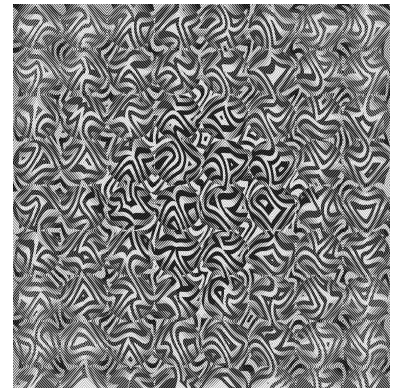
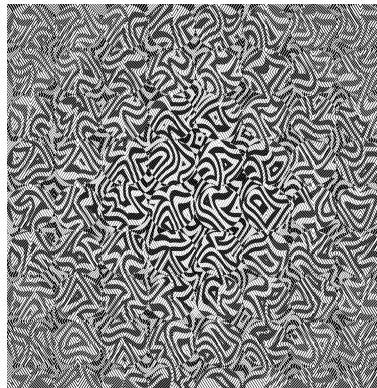
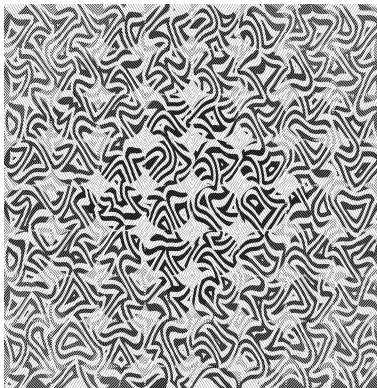
*Three designs from the series created for weaving #437.*



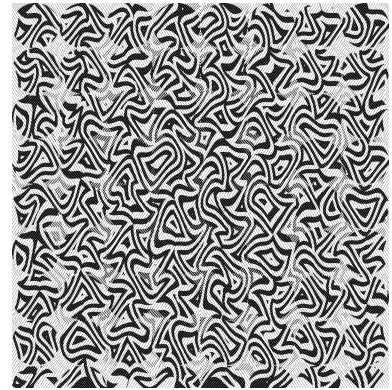
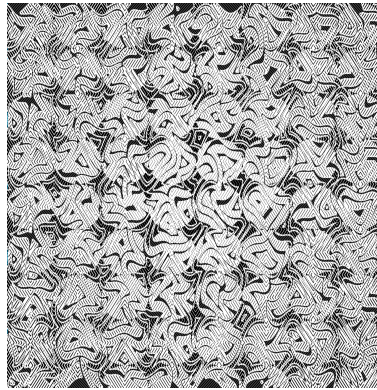
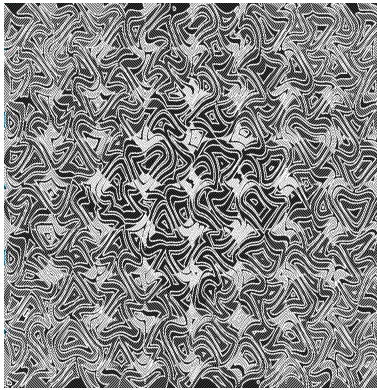
*#437 Random Walk Shadows, ©7/14, silk, linen, digital jacquard, hand woven TC2 loom, 62x57.5"*

In all of these weavings the shiny silk warp complements the matte linen weft and enhances the tactility of the piece.

In this final example of my creative process, I begin by showing the design as it develops first as a structural relationship without color – black indicates the warp and white the weft. Although I usually have some color ideas in mind before I begin, I let the character of the patterns inspire my final color decisions.



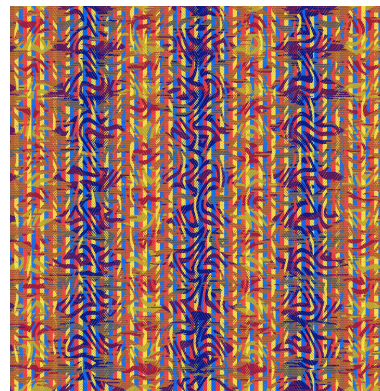
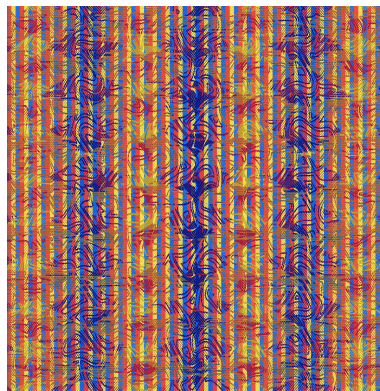
*A selection of three digital designs.*



*Three additional digital design possibilities for weaving #439.*

I wanted to shake up the geometry of the patterns a bit – to give them a more dynamic/fluid presence. The underlying design template is still based on the circle within the square, but it has been altered on at least one of the layers with a filter in Photoshop®.

Working through many color options I settled on a basic relationship that needed to be tested with the structural systems to assure that the patterns in the warp and weft would create an interesting dialogue.



*Two of the structural variations enhanced with color for consideration in the development of the final piece.*

When adding color to the energized weave pattern, I wanted to reinforce a sense of stability through the use of stripes in the warp. Using similar colors in the shifted weft would produce a quality of connection with the stripes while the position of colors and sequence of insertion would create triangular shapes generating a dynamic push and pull with the other networks.... Obviously quite a departure from the previous pieces.



*Colors for the weft painting are chosen to respond to the finished colors of the striped warp on the loom.*



*In this image of the weft yarns drying (left), notice that although the same colors are used in all of the bundles – half of them start with navy while the other half starts with red. They will be inserted pick and pick in the weft.*



*#439 Random Walk: Circuitous Route, ©8/14, silk, linen, digital jacquard, hand woven TC2 loom, 57x57".*

This weaving marks the latest stage in my explorations. I am excited by the greater range of structural and color patterns resulting from the introduction of the striped warp and polychrome weft. The expanded use of visual distortion tools available in Photoshop® and the more involved approach to color systems in the yarns enhances both the stability of the grid and the exuberance of the baroque. The weft patterning that evolves with the shifting weft – its organic outcome and involvement of the sense of touch, also reinforces my interest in the Random Walk Theory. I first discovered this term in the Weavemaker® software where it is used to describe a weaving scheme. Of course I relate to the title!... and learning that the concept for this scheme was based in a foundation of mathematical theory that explains the growth and development of many patterns in nature/life has provided additional intrigue and correspondence. I respond to the idea that seemingly simple systems often produce outcomes of great complexity, and embrace the metaphors inherent in these perspectives as a building block for my work.

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