

Dobby to Jacquard - The Weavings of Sheila O'Hara

After graduating from the California College of Arts and Crafts in 1976, I started weaving wall hangings in double weaves and warp brocades. This led me to multiple warp weaving and getting a 16 shaft countermarche loom. After years of frustration from having only 16 pedals as well as too many hours on the floor changing the 256 tie up cords, I was considering buying a computodobby loom. In 1983, I called up AVL to see if they thought their loom could work with a very dense warp. They told me "Yes" and I could call up Jim Ahrens and ask his opinion as well. To my amazement, not only did he live in Oakland but he was on my very street, a block and a half away! He came over and took a look at my work. He studied my technique and said a computodobby would work but what I really needed was a jacquard loom. We became friends and I ordered the computodobby loom. I would stop by now and then to visit him and Ethel until they moved to Utah. I wish he was around to see what I'm up to now. Maybe he's now guiding me from out there somewhere! He was such an inspiring person!



The technique I have been using since 1979 has been a multiple warp twill which produces results that a jacquard loom would make, but I am doing it by hand. Four sets of warps are wound separately and then wound onto one warp beam all at once. Each warp is threaded on its own set of 4 shafts, which makes a total of 16 shafts. Each warp consists of several colors which can be woven in a 3/1 twill while the other warps weave a 1/3 twill. Blends of colors can be made by variations with 2/2 twills from two or more warps. By changing the shed as I weave across each pick, I can bring up different warps and create a design. (See *Weavers* Issue 11, 4th Quarter 1990 pp 30-35) This was slow but provided satisfactory results. These were woven in wool with 32epi and 4ppi effectively giving the detail of 1/8th of an inch by 1/4 of an inch. I would often think to myself, "If I only had a jacquard loom..."

In 1991, I was invited to participate in The Jacquard Project- Art & Industry in Germany at Muller Zell Mill, organized by Beatrijs Sterk of the magazine *Textile Forum*. I was thrilled! Lia Cook, Cynthia Schira, Pat Kinsella, Hans Herpich and myself all had an opportunity to work on commercial computerized jacquard looms. Vibeke Vestby was also there doing research. The experience was amazing. The shuttle would weave 400 picks a minute!!! To create my design we had to switch the weave structure to multiple weft faced twills. I designed an underwater scene of clown and angel fish swimming in layers of coral. (See article in *Weavers* Issue 15, 4th Quarter 1991, pp 32-35) I had definitely caught the "bug."

In June of 1998, I was invited by AVL to experiment on their hand jacquard loom. The head was made in France with 576 hooks(heddles). The shed was electronic, but the shuttle was still

thrown by the weaver. I made a multiple colored warp and wove up some warp faced Flockettes. It was great fun throwing the shuttle all the way across the shed with NO shed changes!! The effective detail was now 1/12th of an inch by 1/12th of an inch with an overall size of 12" x 10".

In July 1998, I was teaching at Convergence in Atlanta and had the pleasure of seeing what Digital Weaving Norway's TC-1 loom could do. I had known Vibeke Vestby since 1986 where we met when I taught a workshop in Copenhagen. We have kept in touch ever since. Her assistant Katja wove up some of my Flockettes and I could now see the advantage of having one black warp from which several designs could be woven by changing the weft colors.

In the meantime, back at CCAC, Lia Cook ordered a TC-1 loom. Nina Jacobs, the senior studio manager at CCAC, met Vibeke Vestby at that time, who asked her to be the representative and technical support for Digital Weaving Norway in the US and Canada. After working with the loom at CCAC, Nina purchased a TC-1 loom to develop her own work. In 2000, I had moved from Oakland to Lake County when I found out that Nina was renting time on the TC-1. I was now 100 miles north of Berkeley, but I figured that was a lot closer than Norway!

In November 2000 I met with Nina, and we converted my Flockette designs to weft faced weaves. She was able to work with the images I had created in Corel Draw for a triple weft weave. With Nina's expert help, we decided to use 1/7 weft faced twills and a 7/1 warp faced satin. The detail is quite fine with 60epi of 20/2 cotton and 96ppi of 10/2 cotton. This effectively gives a detail of 1/60th of an inch by 1/32nd of an inch, with an overall size of about 7" x 6". The results are crisp, colorful and in great detail. To get color blends I alternate two shuttles in one color, sometimes using up to five shuttles. I am quite pleased, and I have been taking orders.





When I was weaving the 30th Flockette, my mind was wondering about new designs. I had taken pictures of our country landscape and pulled out a photo of a winter sunset with the silhouettes of oak trees. I asked Nina if we could try that one. At 9.5" x 12.5" with 60epi, the wonderful intricacy of the black branches was captured in the weave! It was like magic. I then went on to weaving it in a larger size of 19" x 25" with 30epi of 10/2. I figured that I would just have to double the 10/2 to make it twice as thick for the weft. After testing, it turned out that I needed to quadruple the weft to make it come out in the proper scale. This led me to making blends of colors like a rich tapestry. Care must be taken in choosing an image and in color reduction. This seems to be the biggest challenge so far. When I wove "Blossom Creek" in the fine weave, I added sewing thread to the 10/2 to get the effect of multiple colors. I also started using weaves other than twills to enhance the design. This is great fun. I have now completed three designs in my new country landscape direction. I am inspired by my renewed connection to the earth and the ability to capture the beauty in a woven image. I hope you are inspired by the work. I am excited to see where this will lead me. Without the jacquard loom these artworks would not be possible. In the meantime I am almost thinking of buying lottery tickets so that I can buy my own jacquard loom some day...



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