Creation of Surface Design Merging Various Techniques

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To create multi-colored patterns and motifs on a textile substrate, many traditional techniques are available. Some of those, such as devore and batik, also generate a dimensional surface effect. Creation of colored patterns through hand-manipulation is labor intensive, but adds value through a unique design. Digital textile printing offers tremendous design possibilities due to nearly unlimited colors and repeat sizes, but it is not viable for a wide variety of fabric textures.

This paper reports a research driven creative process for developing textile pattern, color and texture by integrating traditional and digital surface design techniques. As a first step in the process, potential surface design techniques were surveyed via review of existing literature and creative work. Simultaneously, a source of inspiration was identified. Based on this creative inspiration, dye colors were chosen. The next step was exploration of techniques and sample generation. Numerous samples were created using different combinations of techniques. Two categories of techniques were explored; coloration and texture development. Color samples were created using resist dying and digital printing techniques. In resist dying, cloth is shaped by folding, crumpling, stitching, or plucking and twisting, secured by binding and knotting, then dyed to create interesting abstract patterns. Digitally printed samples with more representational imagery were also created. These were useful in finalizing the motif layout and for texture explorations. Devore and heat-set techniques were explored as ways to integrate texture into digitally printed fabrics. Variables such as fiber content and fabric thickness affect color output and impact results of devore and heat setting techniques. Consequently, explorations were carefully documented and the details of all processes recorded in a design journal. Finally, the detailed processes, as recorded in the design journal, provided the methodology for the successful integration of all selected techniques in a final garment design.