

Bellow's Handler

Amy Stoltzfus, Alphonso McClendon, Drexel University, USA

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The “Bellow’s Handler” design was originally inspired by the coastal cliffs of Bioko Island, Equatorial Guinea. I experienced this environment while engaged in a cooperative learning assignment with the female inhabitants of the island. Designated “The heart of Bioko” by its villagers, the cliffs feature a cavity in the rock strata where water is pulled from the waves and thrust out again by the tide, like bellows to a fire. The force of nature displays a pulsating rhythm among air and water. This systematic phenomenon of the tide shaped the aged pouches of rock creating relief work on the inside of the water hole. The texture resembled the paper folding studies of architect and designer Ron Resch.



In the expressive video *The Ron Resch Paper and Stick Film*, Resch uses the explorative nature of a material and coaxes out a geometric formation using the visual effects of light. Resch’s process of crushing paper and plotting triangular shapes informed the patternmaking and construction of “Bellow’s Handler”. In his most basic studies, Resch builds modules that “simply concentrate on the triangular area in the center” to control shrinking and scaling, closely oriented with origami (Resch and Armstrong 1970).

The modules in my design started as a basic pant and fitted bodice. For the physical patterning of the garment, I used the control areas of draping, for example the center back and side seams as control points, like the apices of Resch’s fold lines. I opened these lines, used the measurement to create an isosceles triangle for the flat pattern, and rounded out the shorter leg of the triangle by warping to inflate the area of focus. To emphasize the change in those areas, an alternate fabric was applied in

this case neoprene. The drape of the Nylon parachute fabric was stiffened at the perimeters where the pattern was slashed and spread by the thickness of the semi-transparent neoprene, allowing light interplay through the shape insertions.

Triangulations lent continued direction into the dyeing process of the garment. Upon securing discarded parachutes contributed by the Boy Scouts, sections of nylon parachute fabric were folded into triangles and an assortment of polyhedrons. Next, I applied the traditional wrapping

resist techniques of shibori dyeing. The packages of fabrics were tightly wrapped in polyester yarn, so the dye concentrations created an ombre effect on the folds that led into the center of the rolled fabric. The high heat intensity of the vinegar RIT dye bath established a gradation of bluish gray hues that symbolized the spray of ocean water aforementioned in the "Heart of Bioko" vessel. My intention was to hold onto the lighter grays of the dye process to signify the mist occurring in the Bioko's tide.



For the garment appearance, I envisioned a character in the Bioko setting, escaping the cliffs, catching air, and being thrown back again by the strong arm of the waves. I used a formal system in the initial stages of development to create intricacies in structural shaping. In the late stages of the design process, I employed a more organic, outdoor finish that would expound upon the original concept and soften some of the refined geometries of conception, hence the raw edge finishes and fading hues of gray.

The final silhouette inclusive of hood, billowing pants and hip pouch captures the air forming expressive shapes that exaggerate movement and amplify the spinal column. These modern volumes interpret the strength, agility and posture of female villagers that fish on Bioko Island. In addition, the muted gray and white palette communicates something more atmospheric of the island's border. This design promotes sustainability of traditional craftsmanship (shibori dyeing) and village livelihood (coastal fishing) as well the reduction of waste via repurposing of nylon

parachute fabric, which has an erosion process of 30 to 40 years (NOAA 2002).

References

"Beach and Waterway Cleanups" (2002), National Oceanic and Atmospheric Administration (NOAA), <http://marinedebris.noaa.gov/educate/posters-and-brochures> (accessed 2 August 2014).

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