EDUCATION | RENEWABLE MATERIAL

University of North Texas Research Introduces Bark Cloth to U.S. Market. By Kathlyn Swantko

New Interest in an Ancient Textile



here is a little-known renewable textile that has been produced for more than three centuries, which is generating new interest in the U.S. across a variety of industries. The fabric is bark cloth, which is produced in Uganda and has progressed from its ancient applications as the cloth of kings into innovative adaptations for the 21st century.

With the help of the University of North Texas (UNT) and Lesli Robertson, senior lecturer in fibers in the College of Visual Arts & Design, bark cloth is being introduced into the U.S. market. Working with Oliver Heintz and Mary Barongo-Heintz of Bark Cloth, Ltd., Germany, a cultural exhibition, "Material Evolution: Ugandan Bark Cloth", curated by Robertson, was organized. The exposition showcases bark cloth as a new "green" material that is the basis for a wide range of textiles and composites. The fabric is manufactured in a lowenergy, partly CO2-emission-free process, for such applications as home furnishings, wall coverings, apparel, fashion accessories, footwear, and automotive interiors.

Bark cloth is a textile made from the inner bark of the Mutuba (fig) tree by the Buganda people, who live in the southwest area of Uganda. Historically, bark cloth prospered throughout the Buganda kingdom until the nineteenth century when Arab caravan traders introduced cotton cloth. In 1999, bark cloth production resumed through the cooperation of small-scale organic farmers. In recent years, the production of bark cloth has been encouraged and promoted in the Buganda kingdom, and has become recognized among the Baganda community as a sign of their specific political and cultural traditions.

The Production Process

During the wet season, the bark is stripped from the Mutuba tree, and is soaked in boiling water for a few days. The Mutuba tree is wrapped in banana leaves after the bark is stripped, to protect the tree from the sun and make it ready for harvesting again a year later.

Through an arduous, five-hour, labor-intensive process, the bark is beaten with different types of wooden toothed mallets, and stretched to make the texture soft and fine. The finished piece measures about 2.3 meters by 2.5 meters—about four times its original width. Although terracotta is the natural color of bark cloth, the fabric can be dyed white, black, and a variety of bright colors.

"Tests have shown that bark cloth is durable for upholstery and wall covering applications, and it mimics the toughness of leather. A variety of finishes can be used to provide additional versatility," explains Robertson. "Today, the fabric is also being made in lighter weight versions for apparel. These lightweight fabrics are achieved through additional beating, using specific types of mallets."

Robertson is working with the UNT engineering department to focus on expanded possibilities for bark cloth as a viable new textile. Since there is a growing resource of organic farmers interested in the production of bark cloth in Uganda, there is little concern about meeting increased demands for the fabric. While Robertson

is mainly concerned with the design and art applications and advancing the cultural traditions of the Ugandan people, her collaboration with engineering could result in a significant future potential for bark cloth.

For more information on the University of North Texas' involvement with Bark Cloth contact Lesli Robertson, lesli.robertson@ unt.edu or 940-565-4125.

Kathlyn Swantko, president of the FabricLink Network, created TheTechnicalCenter.com for Industry networking and marketing of specialty textiles, and FabricLink.com.

