

## Golden Delicacy

Traci A.M. Lamar and Yanxue Ma North Carolina State University, USA

Keywords: Seamless, Knit, Cotton-rich, WholeGarment®

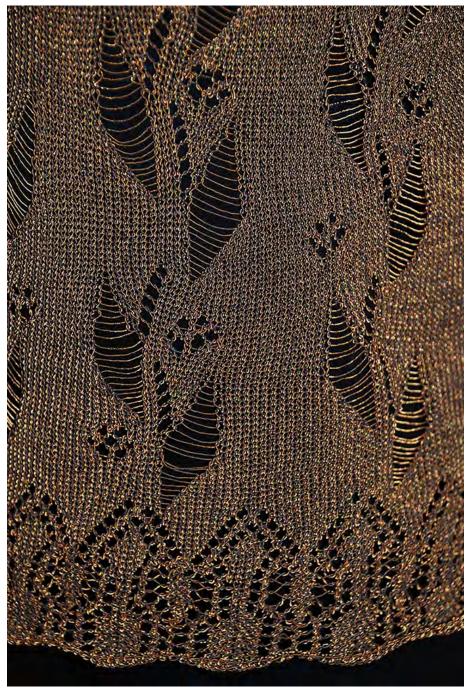


This dress was created as an exploration of seamless machine knitting. Because of the techniques used to create seamless machine knitted garments, successfully integrating knit stitch patterns within the knit structure is highly complex and challenging.

In creating this design, we first selected a general form for the dress silhouette, then began to work with the knit stitch structures that provide the intricate detail in the garment. The vine pattern, hem and sleeve edges, and yoke knit stitch patterns were designed stitch by stitch within the knitting pattern for the dress using Shima Seiki Knit Paint software. Imported "Glassa" yarns in an antique gold metallic color were used to knit the dress. Glassa yarns from LANIFICIO DELL' OLIVO are 75% cotton and 25% polyamide. To create the yarn, the black 5-ply cotton core of the yarn is wrapped with light colored polyamide filament giving the yarn its aged metallic look. The weight of the yarn is approximately 6 cotton count.

The finished design was knitted on a 7-guage Shima Seiki WholeGarment® knitting machine by the designers. The dress was knitted as a complete garment, there are no seams. The inside is as beautiful as the outside. Before the final knitting, samples were knitted first in 8/2 cotton count 100% cotton yarns to help improve and correct the pattern. Use of the less expensive and more knittable yarns allowed inexpensive refinement of the pattern.

Page 1 of 2



The Glassa yarns proved difficult to know, so several samples in the final yarn, along with adjustments to machine settings and knitting speed, were required to achieve the finished design.

The dress is shown over a purchased black camisole and leggings to enhance the visibility of the knit stitch patterns shown in the detail to the left. The dress was completed June 2013. The dress is sized to fit a model with a 34" bust and 35 ½" hips. It is 34" from shoulder to hem.

Page 2 of 2