Yarn has always played a roll in my life. My Grandmother, Mother and I all knit. I can remember my Grandma knitting me scarves; my mother knitting me sweaters; and the cats tossing the yarn all over the floor growing up. Because of this, I chose to base my final photomacrography project on yarn.

To create this project, yard length pieces of every different type of yarn (except Angora) were cut: Alpaca, Bamboo, Cashmere, Cotton, Mohair, Nylon, Polyester, Silk, Wool and Yak. For those who have little experience in yarns, Alpaca, Cashmere, Mohair, Wool and Yak are animal hair based and dyed for color. Bamboo, Cotton and Silk are plant based, and dyed. Nylon and Polyester are both man-made. Each type of yarn was then knit into small 5x5 stitch swatches on size 7 needles.

A fiber-optic light system was set up for illumination before photographing the swatches individually using a camera and bellows set up. The swatches would then be switched out, camera re-focused and so on. This process resulted with some lovely textural images for the various yarns.

The yarn was then photographed through a polarized microscope system. A single fiber was extracted from each swatch and placed onto a microscope slide. The strands were first photographed under Koehler lighting. After finding a good positioned piece of the yarn fiber, the polarizing filter would then be put into the visual path of the microscope. You'll notice that the types of fibers, as well as the dyes used to coat the fibers, present themselves in those photographs. I hope you enjoy my work.

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50 µm









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