BIOMATERIAL MATTERS

Fitting Humans into Cocoons

A Speculative Prototype

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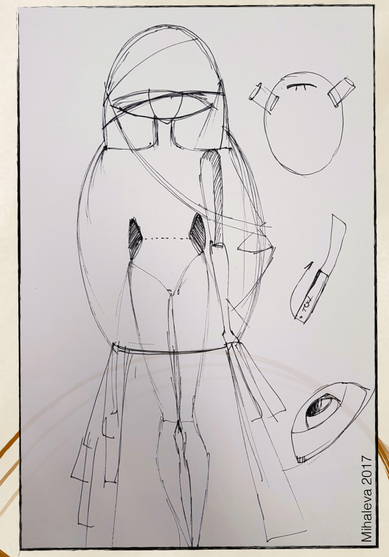
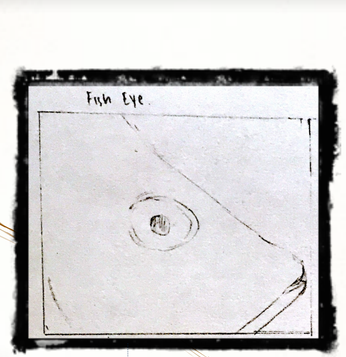
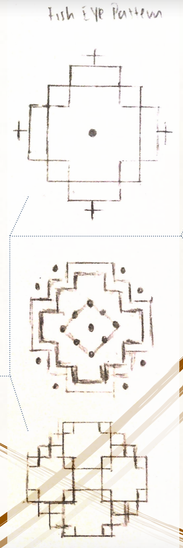


Amami-Ōshima kimono fabric

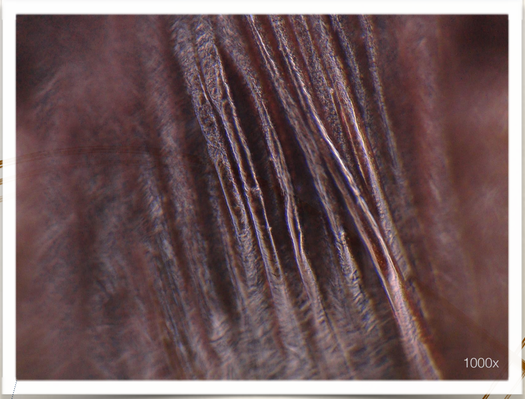
Amami-Ōshima silk historically show patterns with variations of the "fish eye" motif. Our textile curation process studied how these cross-like patterns represent the island's tropical nature and manmade artifacts. Valuable weavings are handmade and employ a meticulous resist-dye technique to create a design at the level of warp and weft threads. Authentification processes verify the weaving quality and origin of the signature brown color, from a local plant and mud-dyeing.





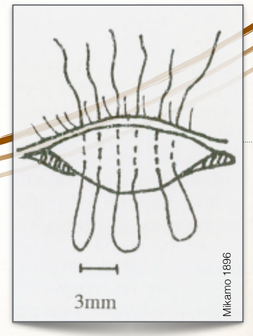
Historical research

Micrographic documentation



Prototyping

silk surgical sutures



In 1896, surgeon Mikamo Mitsutaro conducted the world's first "double eyelid" surgery in Japan. He used three silk sutures to pull back a woman's upper eyelid. Several days later, he removed the sutures, which left behind a "natural looking" fold. The technique was perfected in the 1920s. Silk sutures are used in procedures ranging from common ligatures to ophthalmic and caesarean surgeries. The object marks an early example of silk as a biomaterial.

In contrast to the soft texture of naturally dyed silk filaments, braided silk sutures *are* more structured, resulting from degumming raw silk of its outer sericin protein coat. The core fibroin protein filament is sterilized, braided, waxed, and coated with silicone before they are distributed for use in surgeries today.

Mihaleva's design employs an ocular jabara designed to signify the eye and notion of re-visualizing silk through attention to the histories of Amami Ōshima textiles and biomateriality. The garment invites the wearer to experience a perspective of being cocooned, restricted, yet considering a phase-change.

Relevant terms and phrases are embroidered and sutured into the prototype to encourage a new reading of the textile. The kanji character for *kaiko* (silkworm) is embroidered with black braided silk sutures on white Amami Ōshima silk.

Microscopy and embroidery by Nicole Ong Yii Mei

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Poster background: Cocoon surface (20x, digitally rendered)