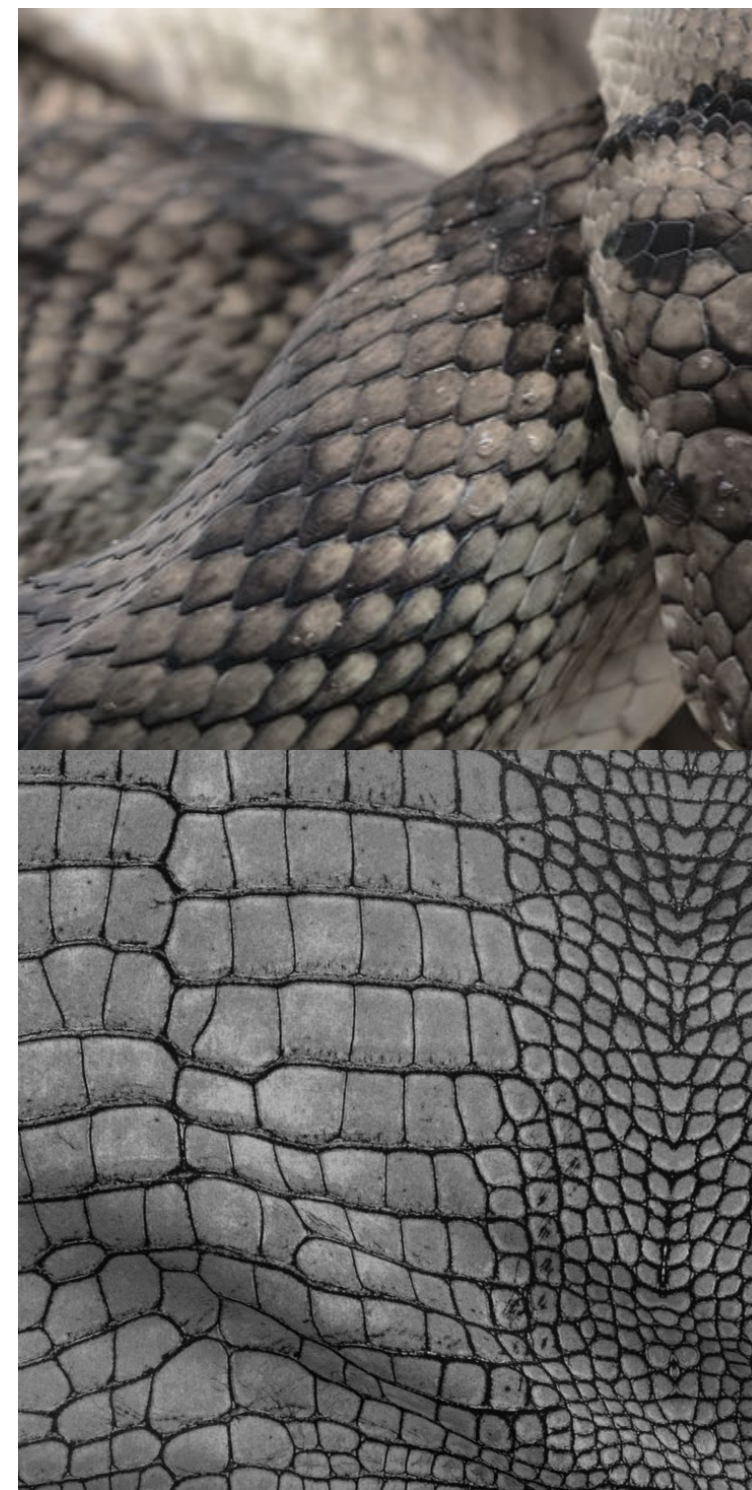


Parametric Reptilia

Company Xuanhao LLC
Designer Xuanhao Li
Credits Photo by: Xuanhao Li

Inspired by the intricate texture of reptile skin, Parametric Reptilia utilizes recycled TPU material sourced from industrial waste to meticulously craft an elegant fashion piece with a scale-like surface. Parametric Reptilia is a harmonious culmination of sustainability, materiality, craftsmanship, and Bio-inspired computational design.

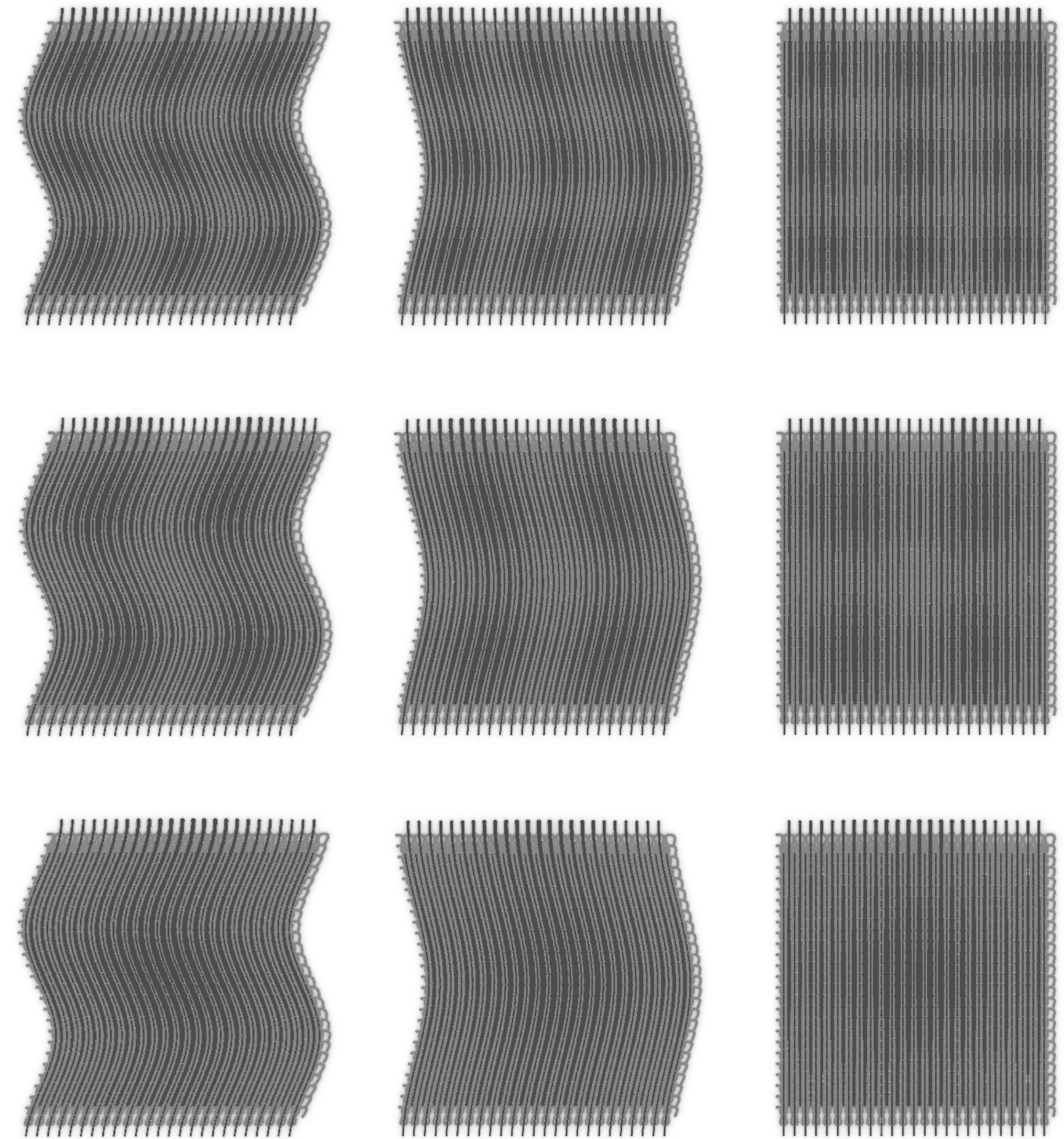
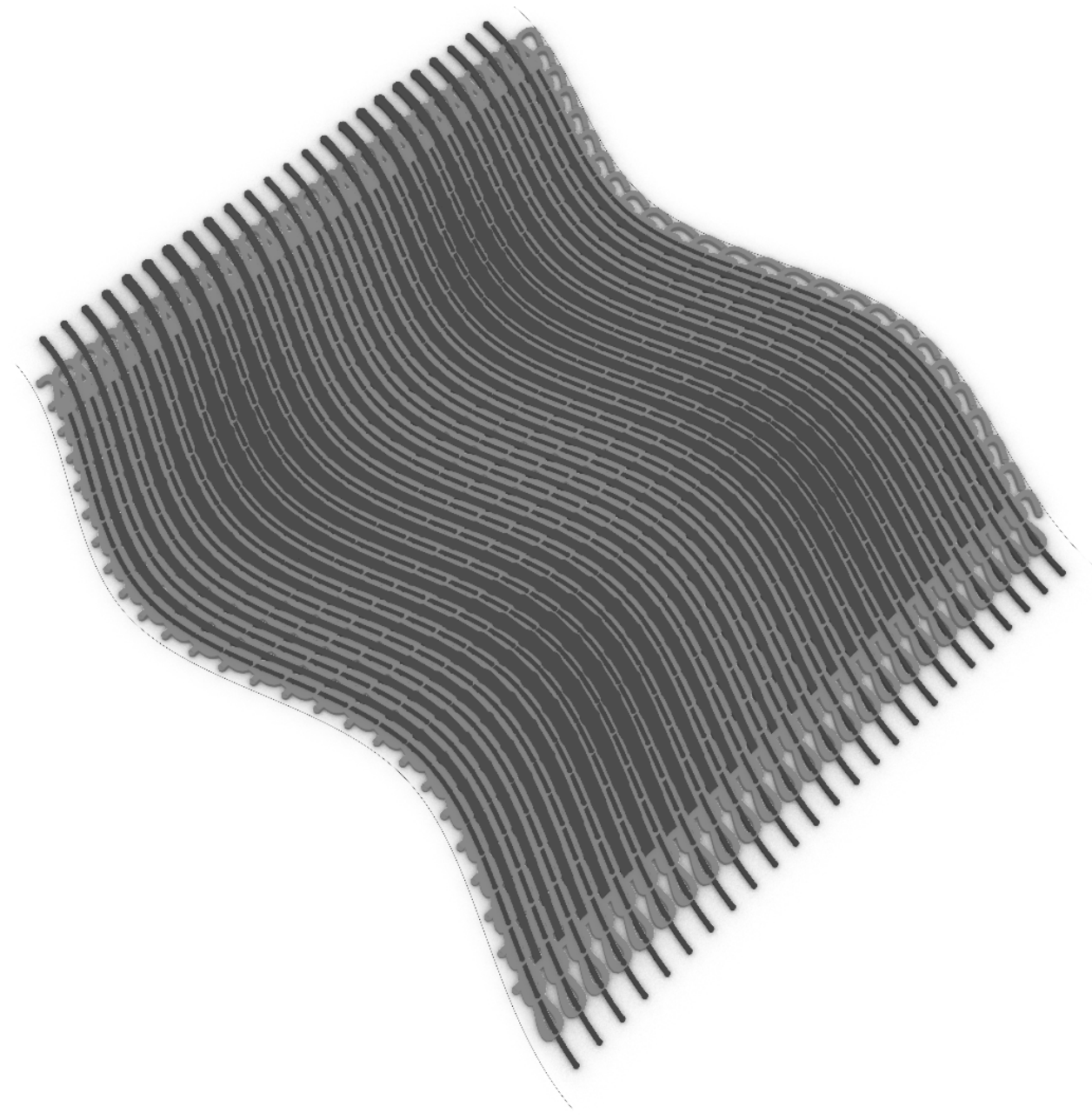
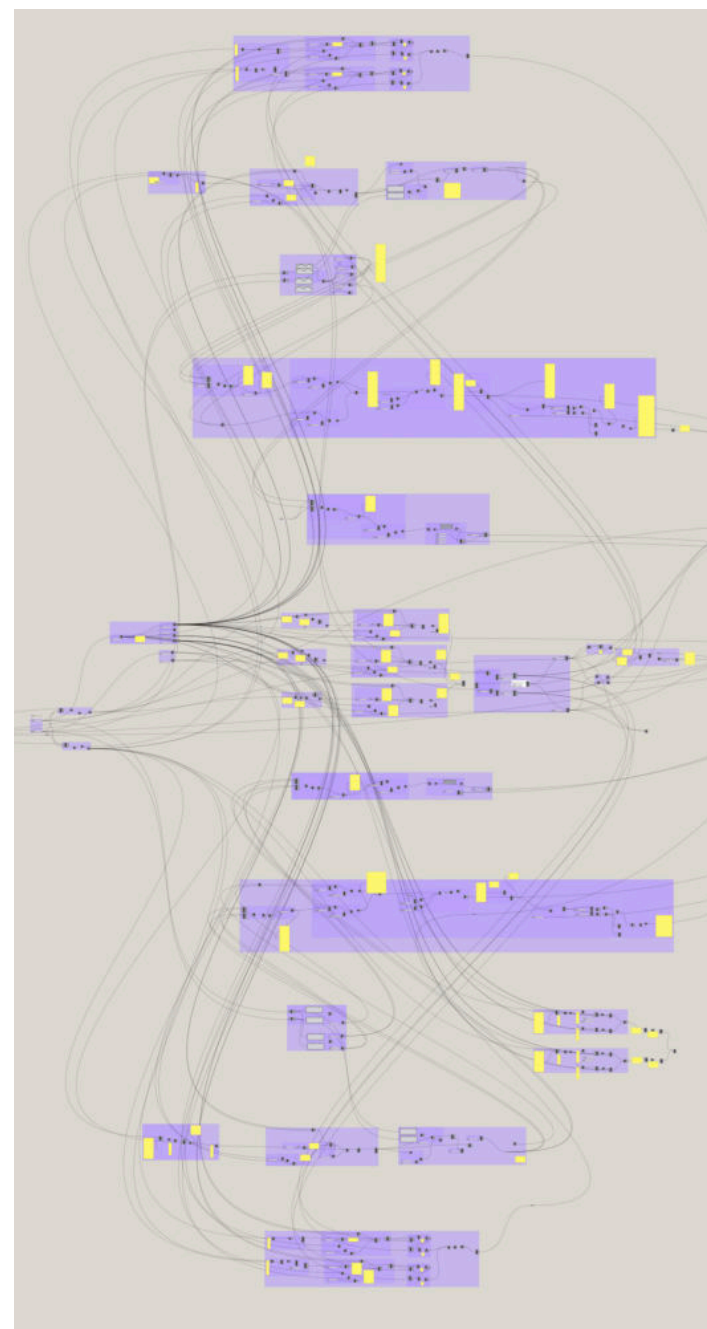




Leveraging Recycled TPU
Material sourced from
Industrial Waste to Craft
Exquisite Scale-Like Textile.

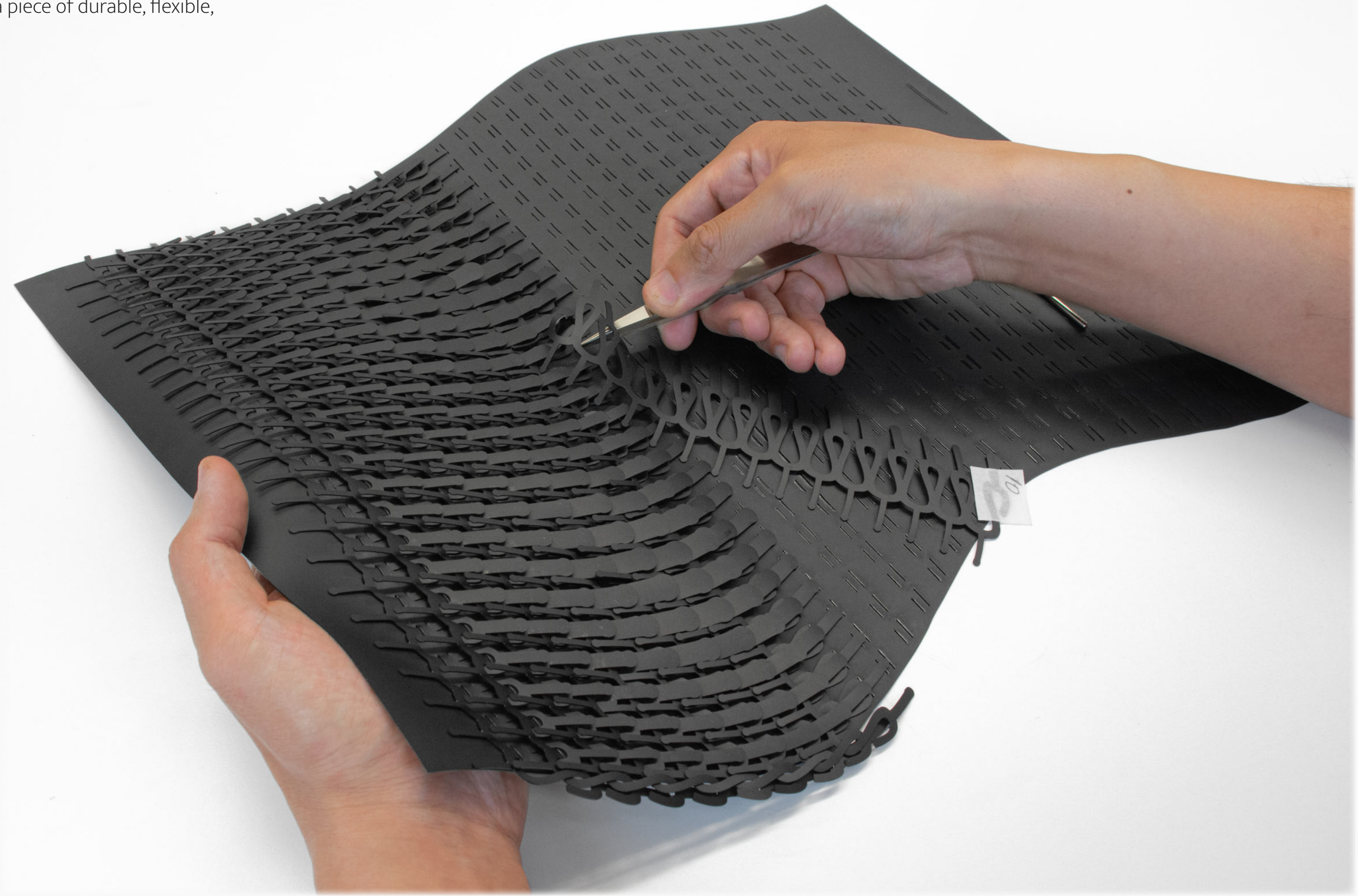
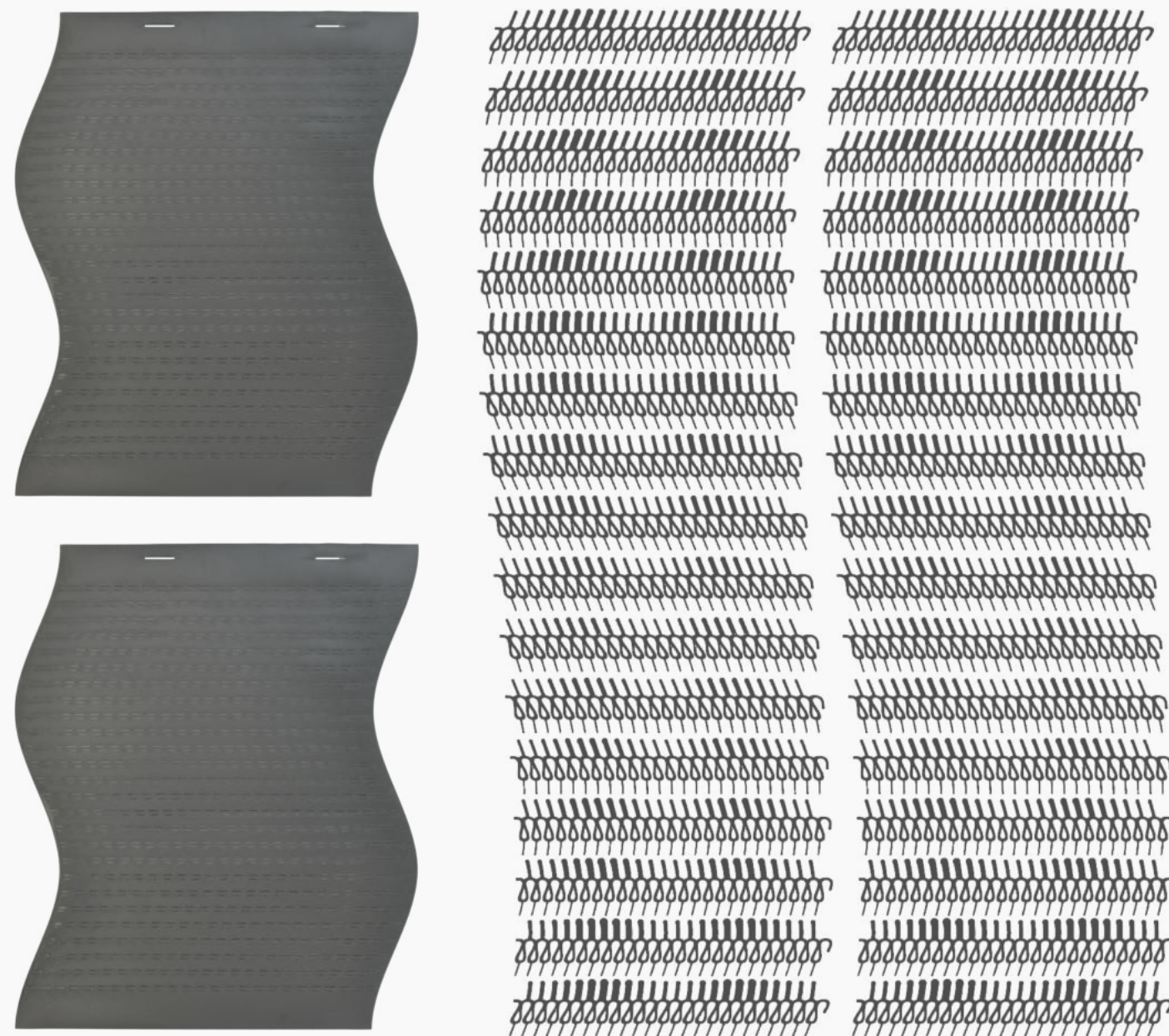
Parametrically Designed Scale Distribution

Employing a parametric design approach, the modeling process delves into the rhythmic distribution of scales. The methodology employs an interlocking structure derived from the shape of knitted stitches, featuring scale-like extension generated at each peak of stitches. Through the manipulation of parameters, the resulting outcomes showcase an extensive array of scale patterns, offering an infinite variety of design possibilities.



Fusion of Digital Fabrication and Craftsmanship

The substrate and a series of strip units connecting the scales are individually cut with the CNC machine, then meticulously assembled by hand following the sequence. This process results a piece of durable, flexible, and aesthetically pleasing textile, ultimately used for sewing into a handbag.





Bio-Inspired Elegance

Under different lighting conditions, the overlapping scales exhibits a varying interplay of shadows, culminating in a flowing and rhythmic elegance.

