# PHA Textiles Development through Material Driven Design

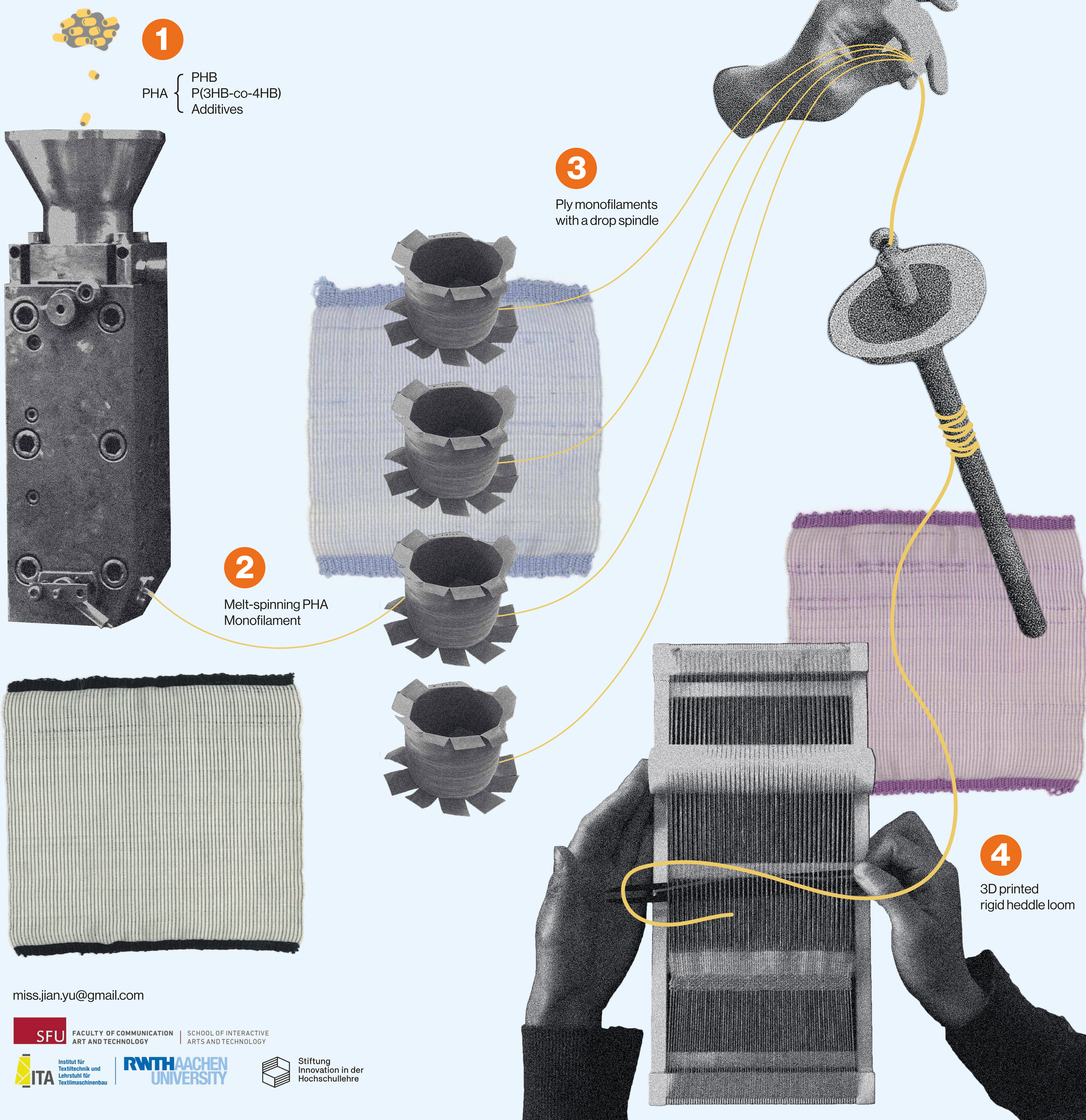
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Polyhydroxyalkanoates (PHAs) are a polymer family biosynthesized and biodegraded by microbes, known for their degradability in natural environments without microplastic residues. They are widely used in injection molding but rarely explored as fibers.

We present a material driven design approach to explore opportunities in melt spinning and weaving PHAs. With preliminary melt-spun PHA monofilaments, we developed bespoke manual weaving tools for the fiber's unique materiality. We produced PHA textiles by weaving 4-ply PHA yarn.




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