

Stefanie Reich

Bionic Experiments

Bionic meets Design



Über mich

1999-2004 Studium Produkt Design, Diplom.
Schwerpunkt Objekt Design, Fachhochschule Aachen.

Seit 2004 als Designerin tätig.

Seit 2012 Masterstudium Industriedesign, Schwerpunkt
Medical Design, Muthesius Kunsthochschule, Kiel.

Inhalt

I Einführung in das Projekt

I Bionik & Design

I Faltmusteranalogien

I Falttechniken in der Natur

I Gestaltung eigener Faltmuster

I Entwicklung kontrollierter Faltungen

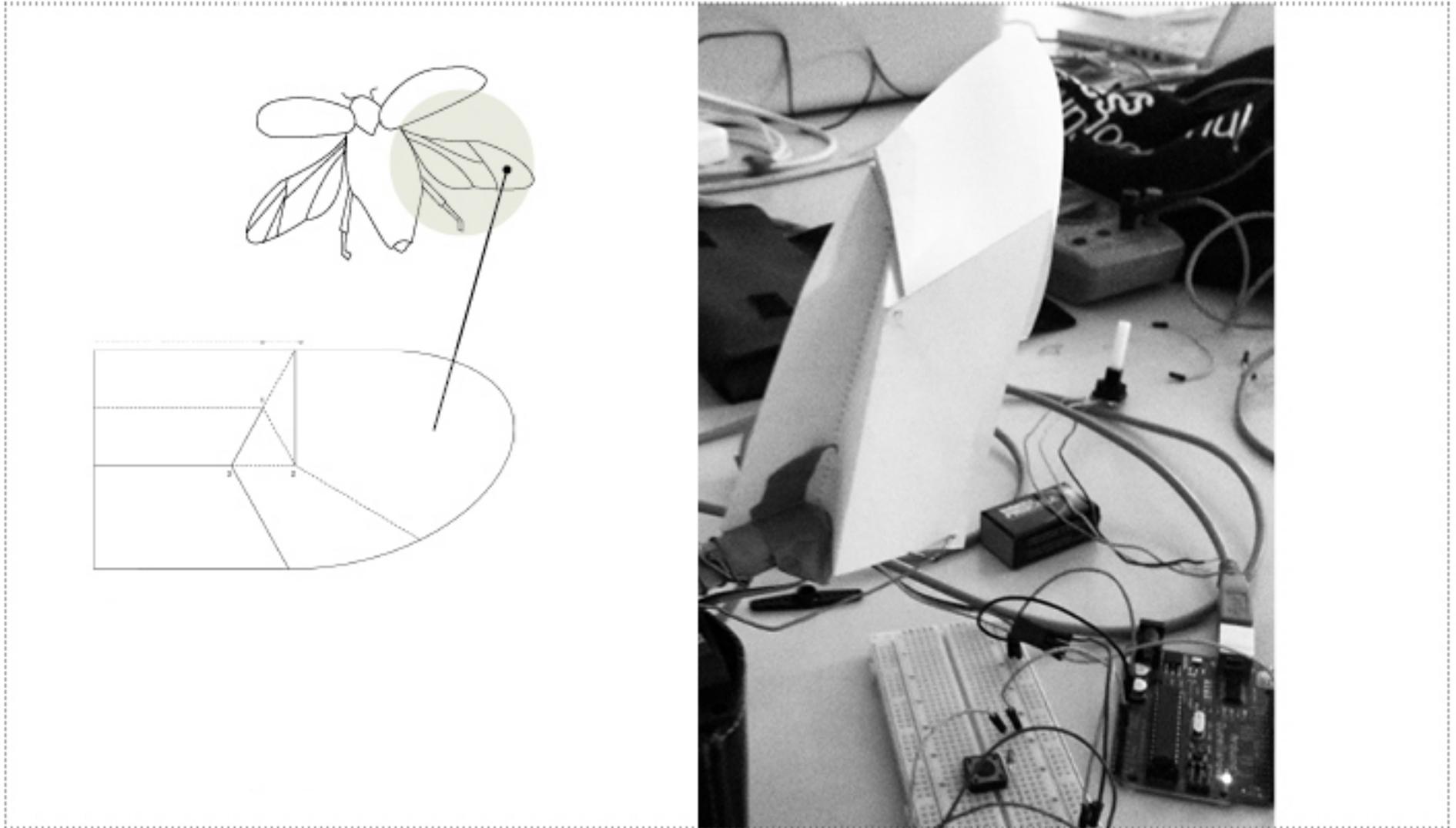
I Der generative Prozess der Faltung

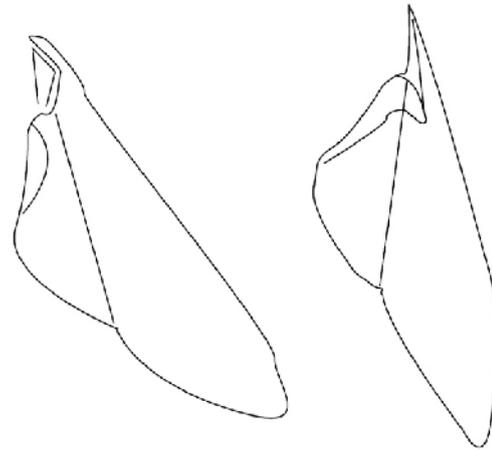
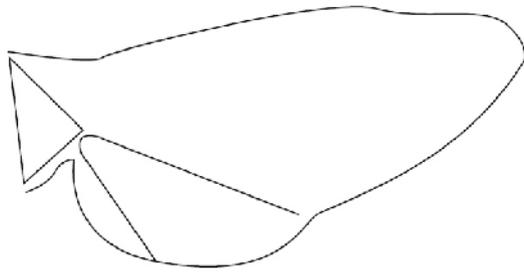
I Prinzipkonkretisierung, das intelligente Gelenk



Bionik & Design

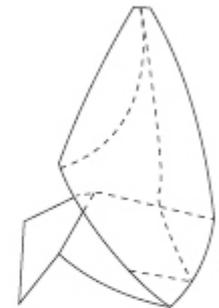
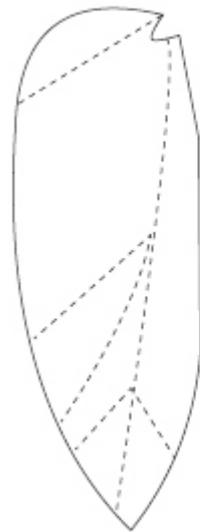


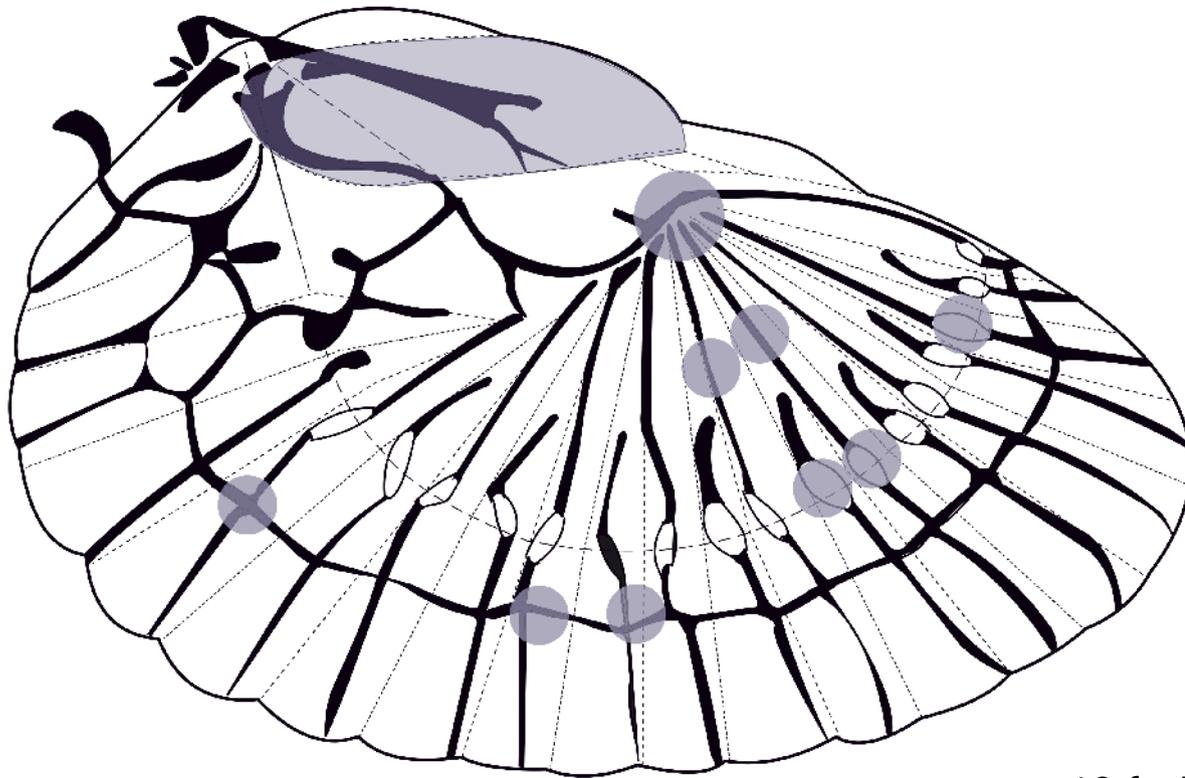




Einfache Flügelkonstruktion

Kompakte Flügelkonstruktion

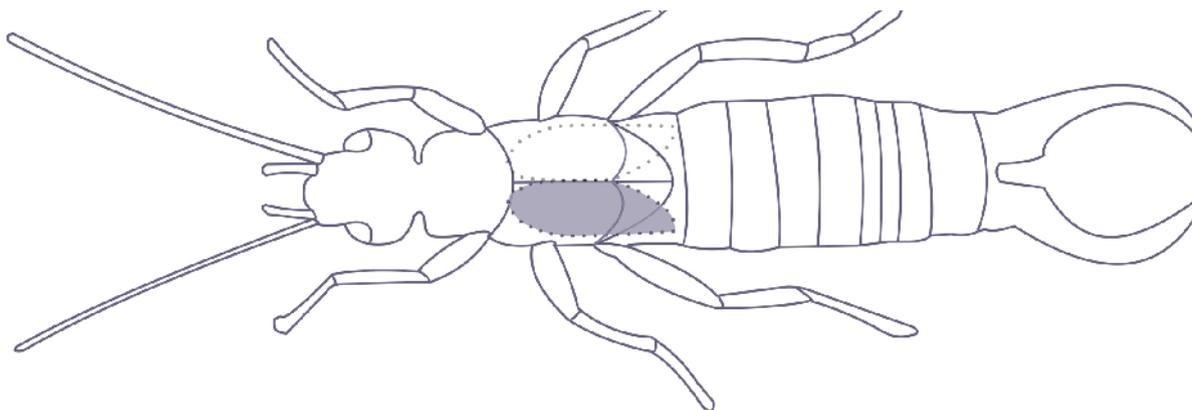


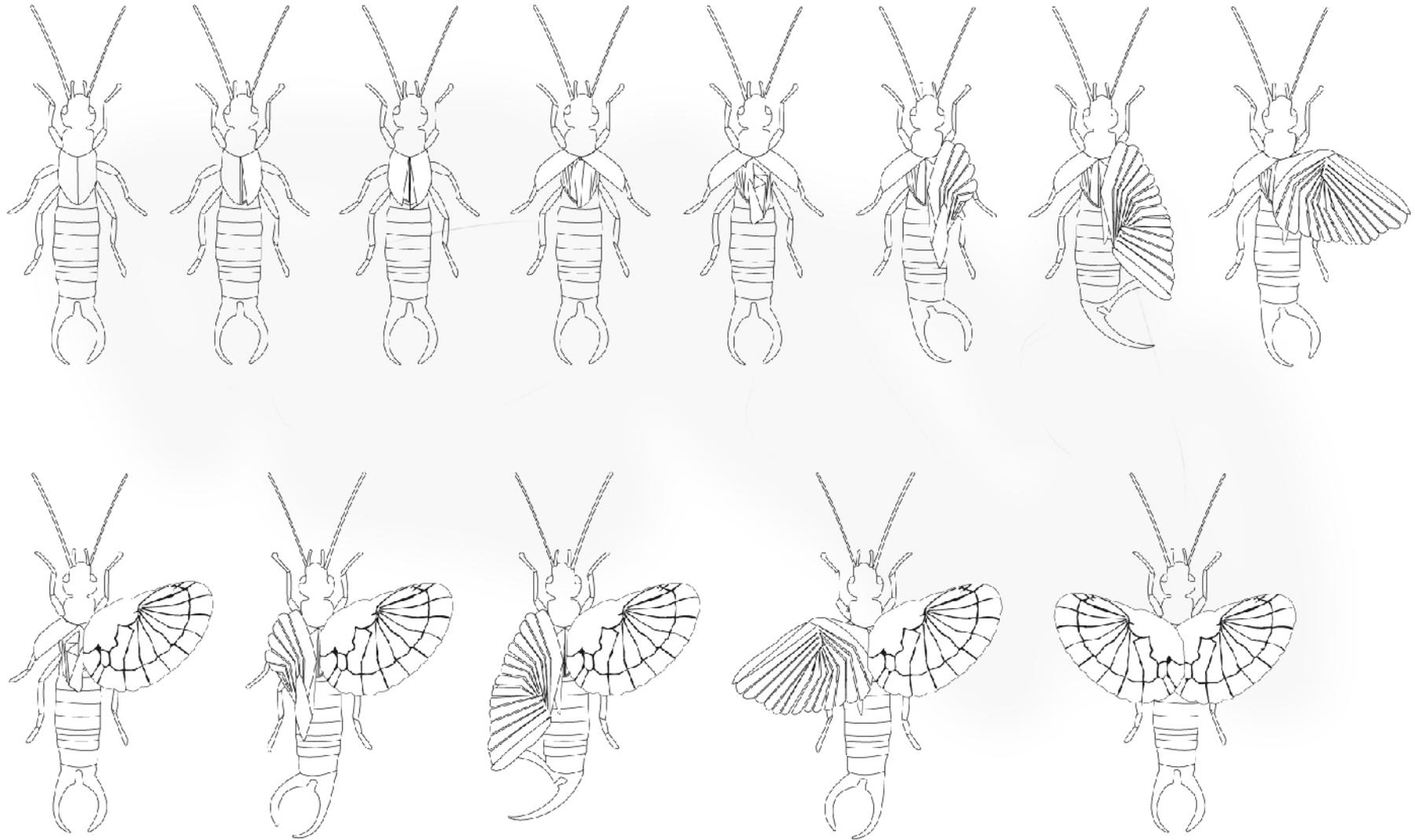


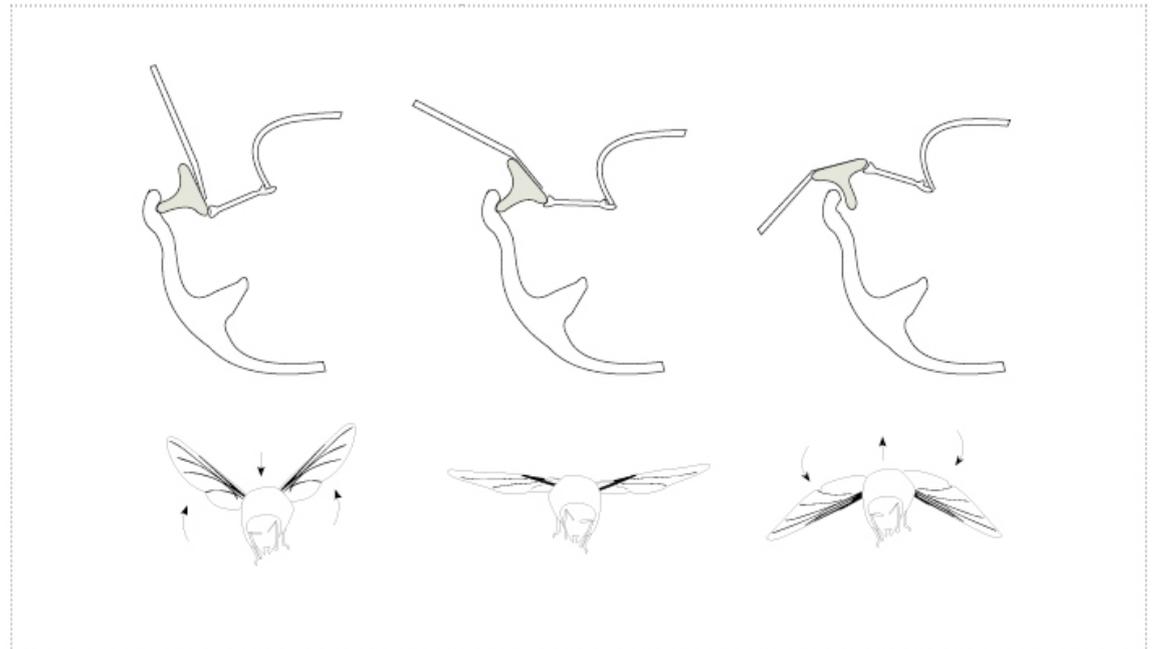
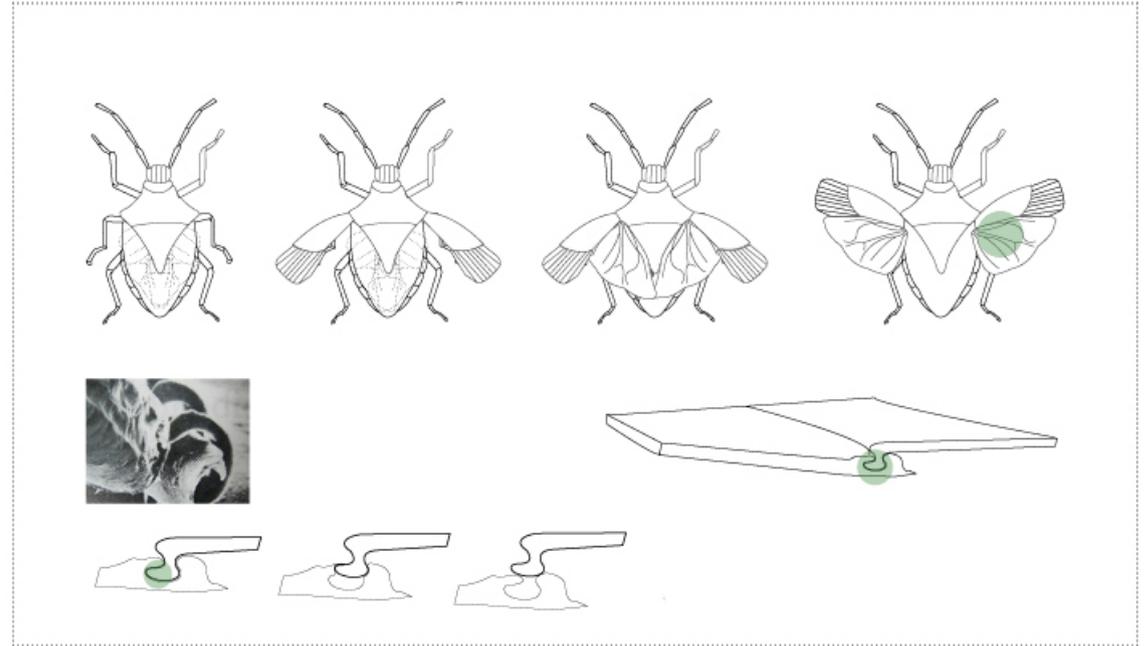
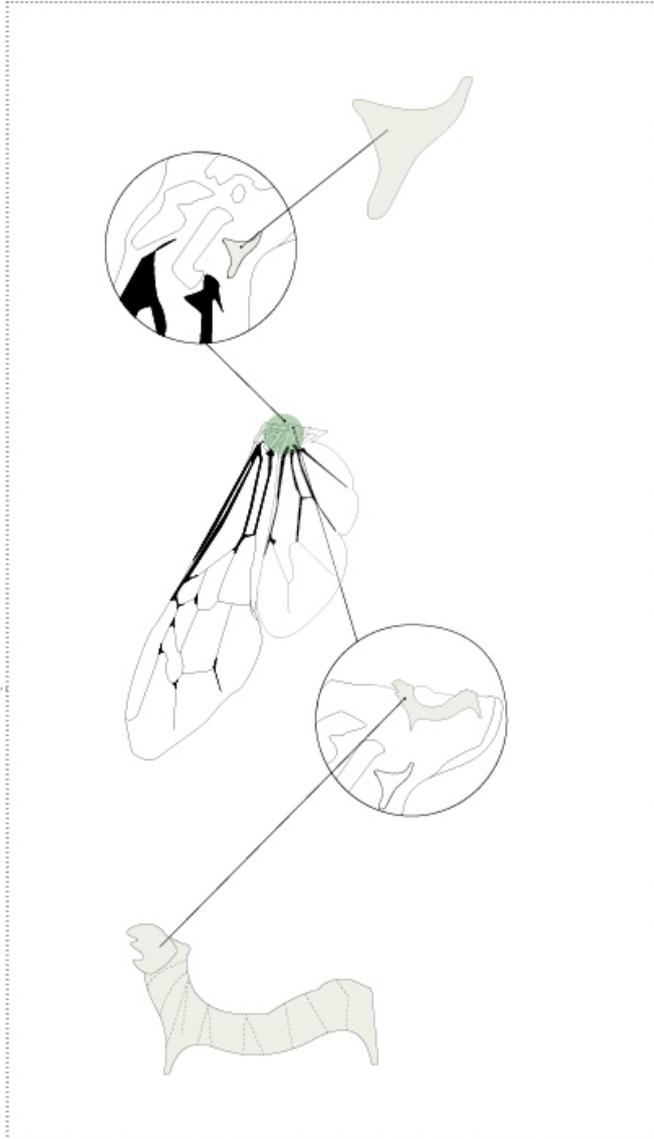
- Resilinspeicherpunkte
Resilin ist ein gummiartiges, elastisches Protein, das mechanisch Energie speichern kann.



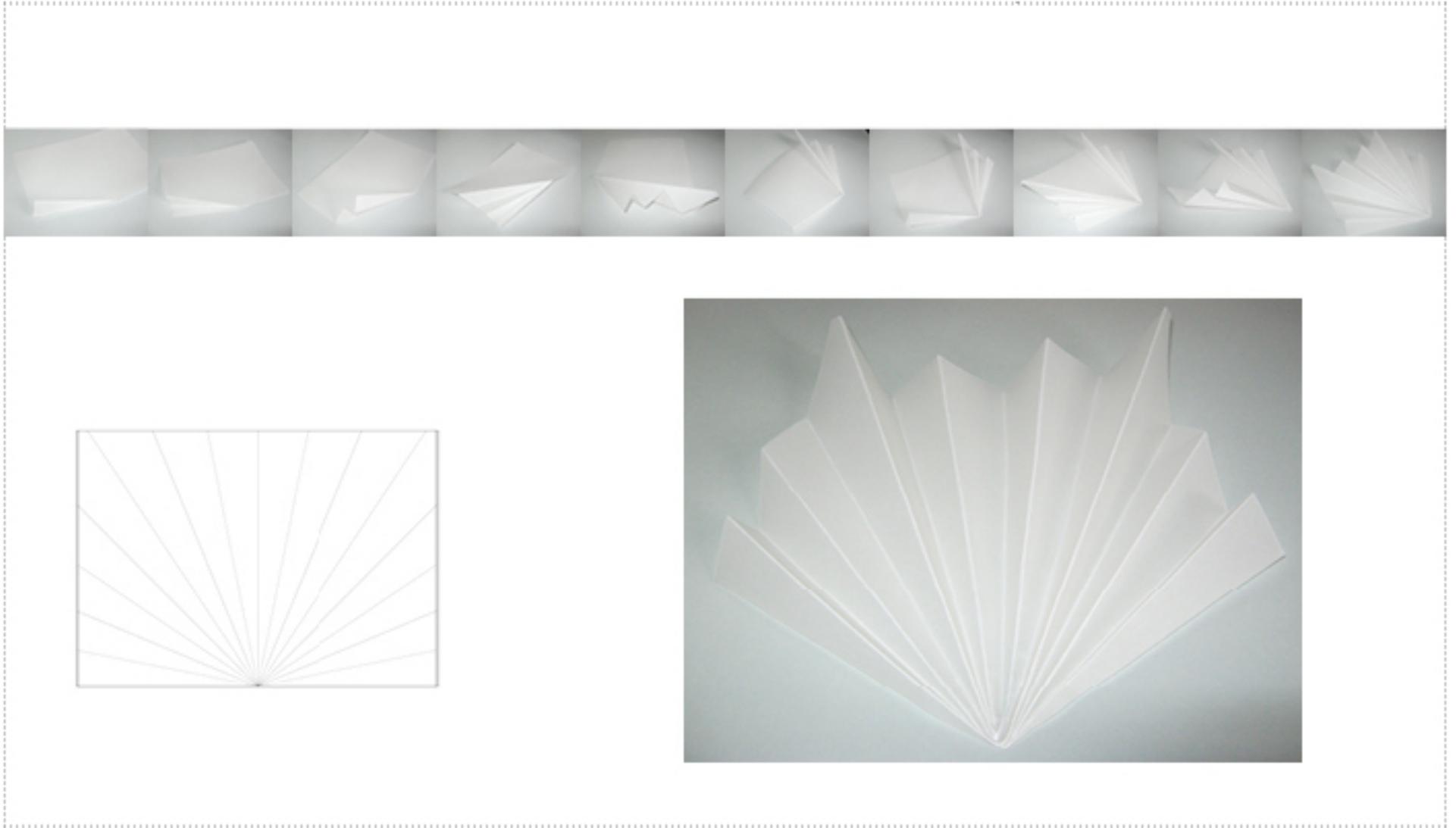
10-fache Flächenvergrößerung durch Faltung

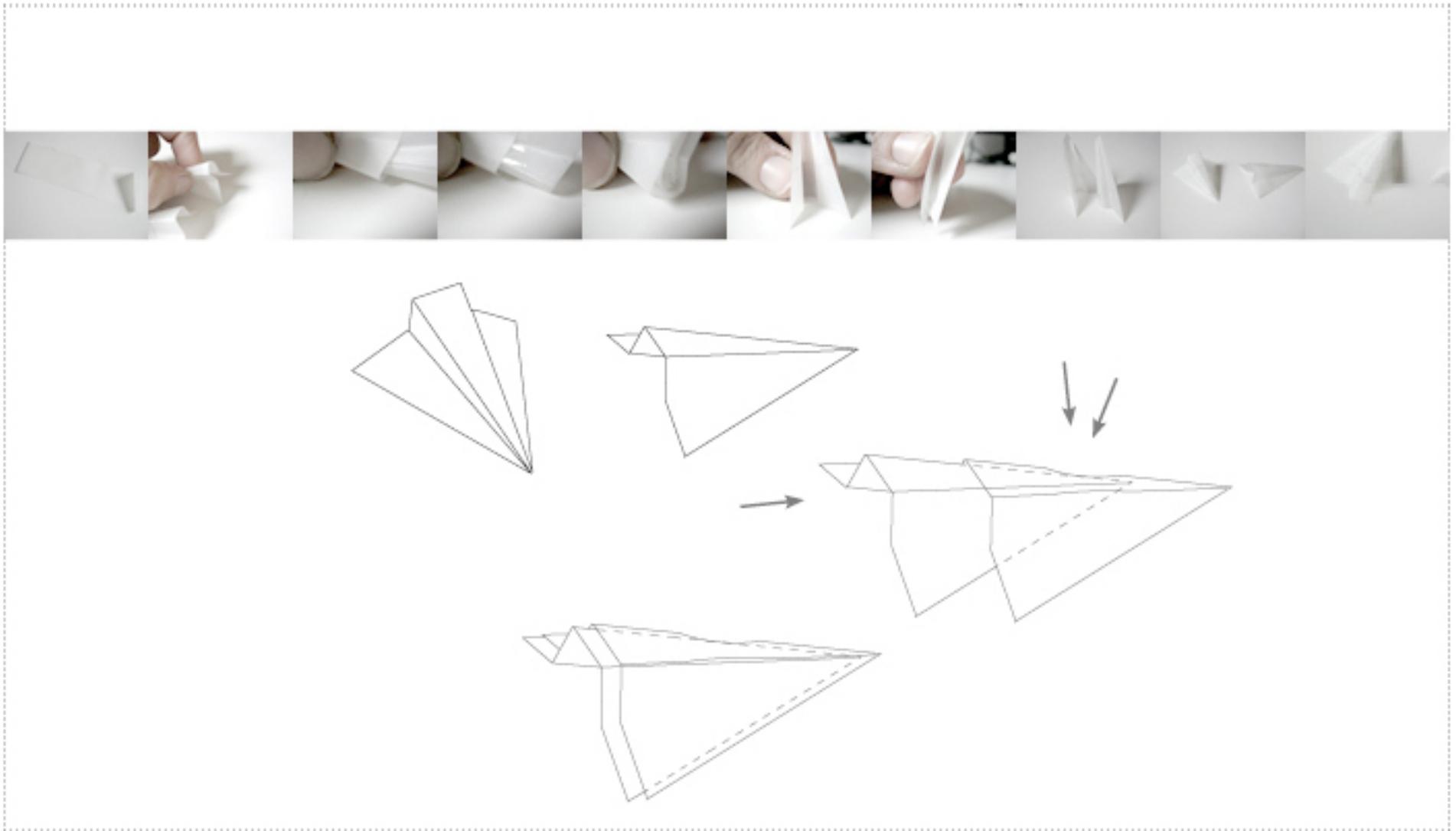


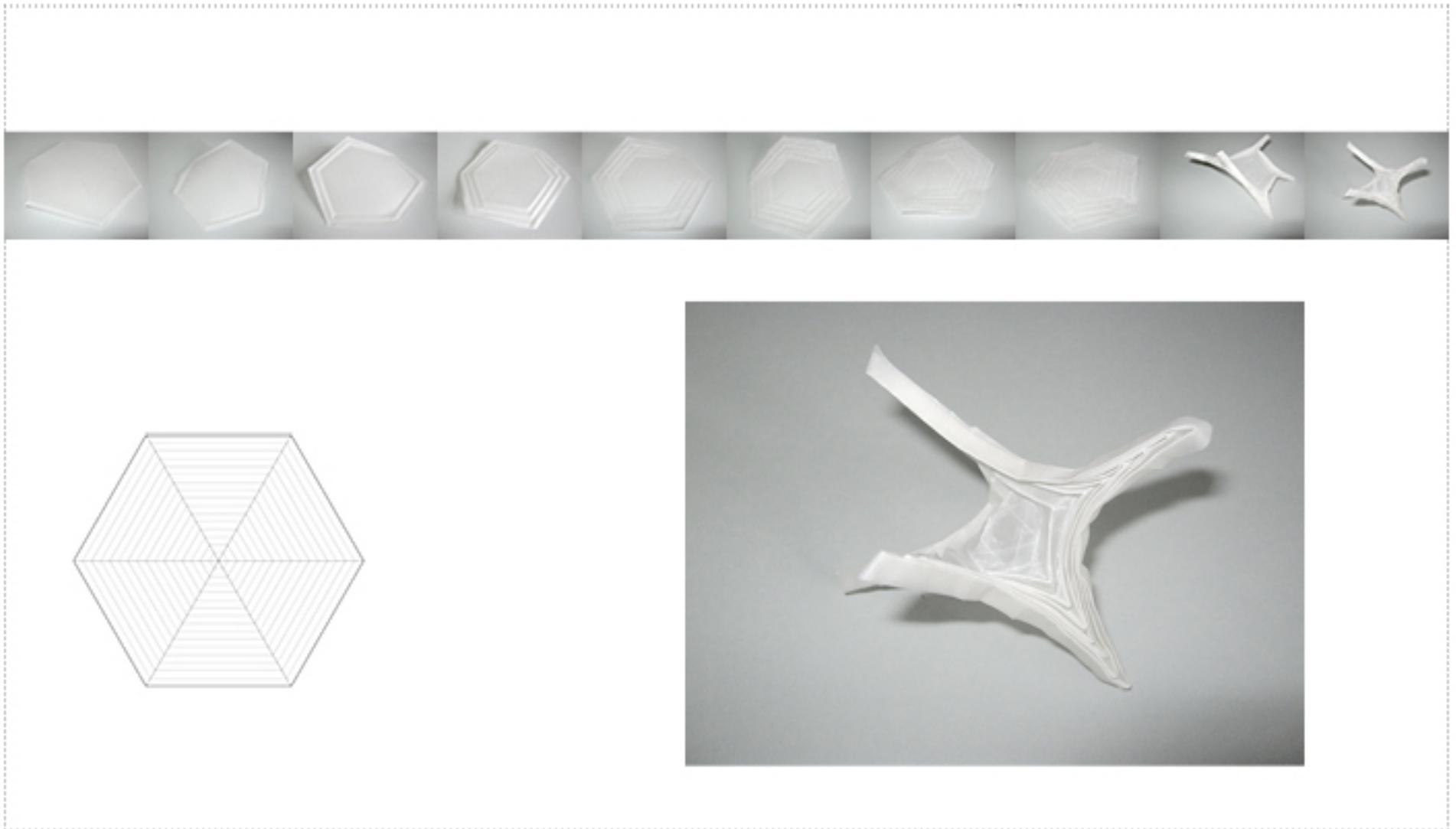


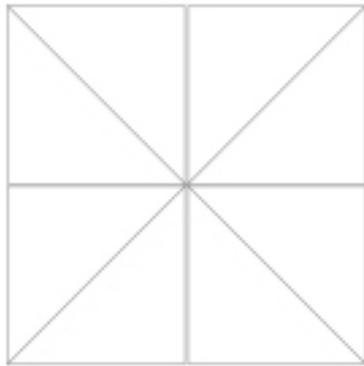


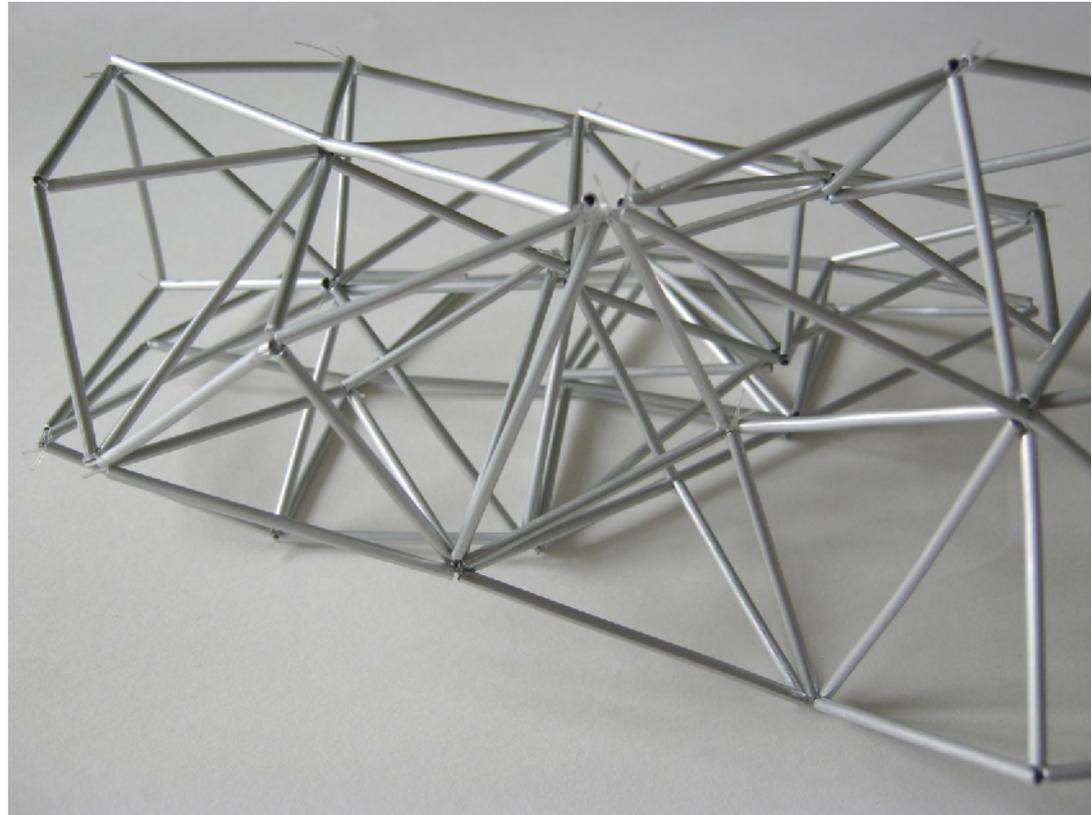
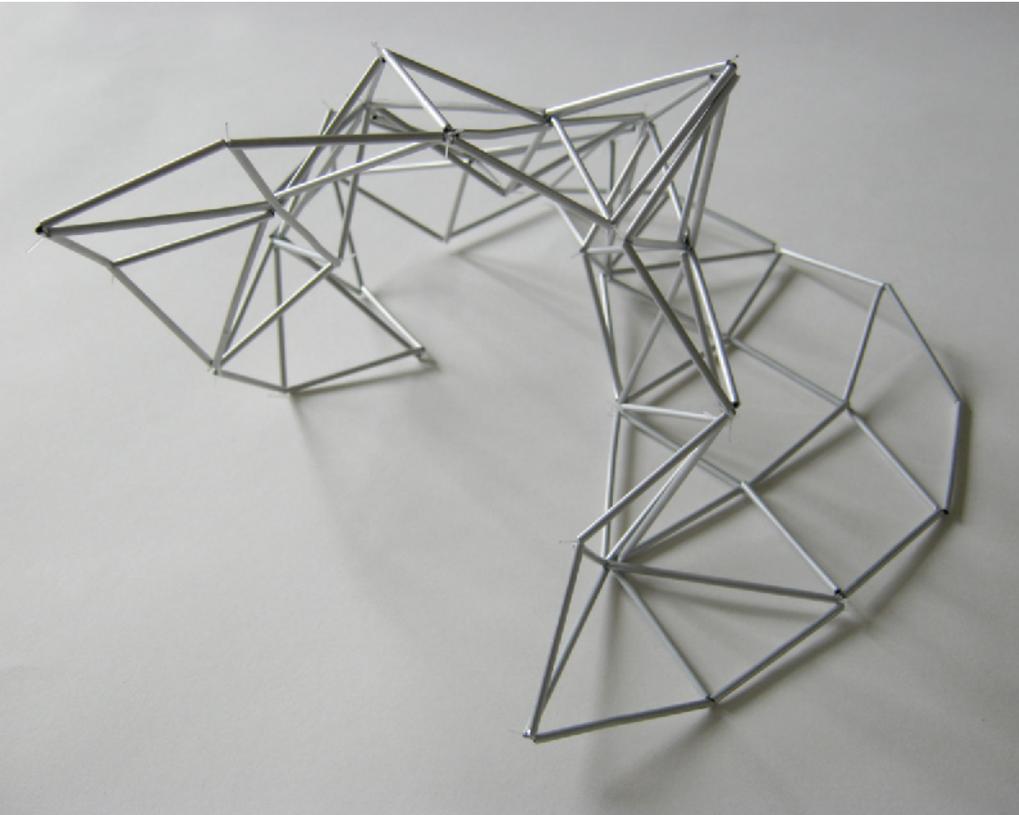
„Alle zweidimensionalen Flächen werden durch Faltung
zu dreidimensionalen Objekten.“

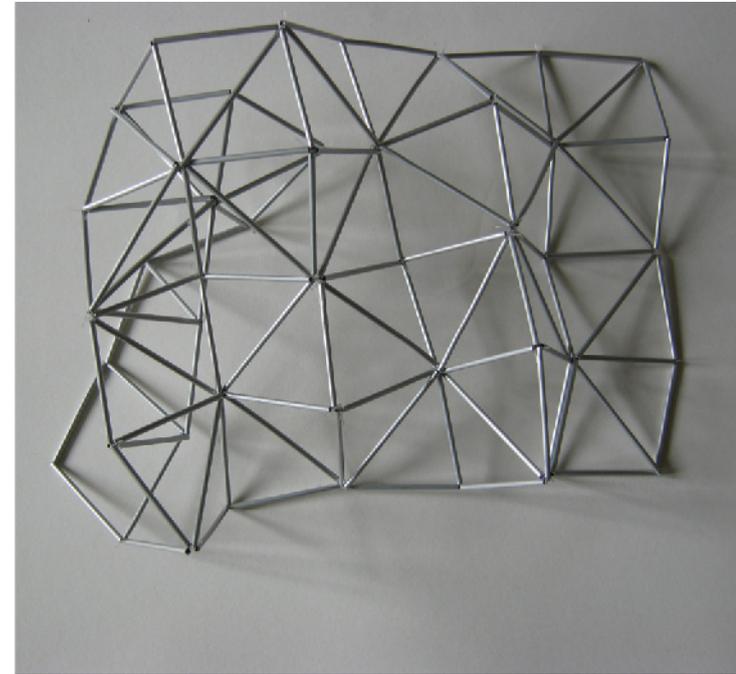
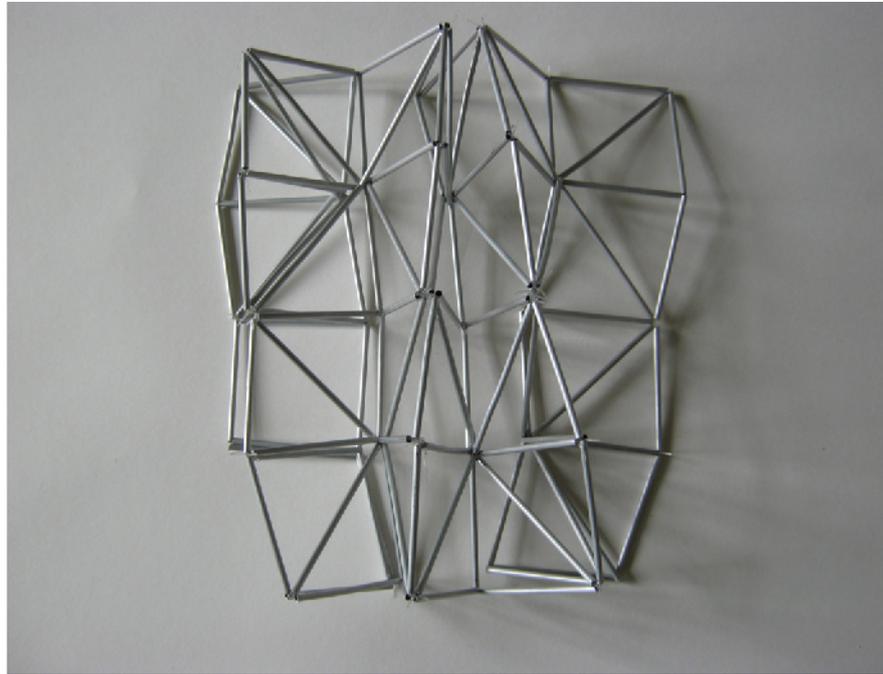


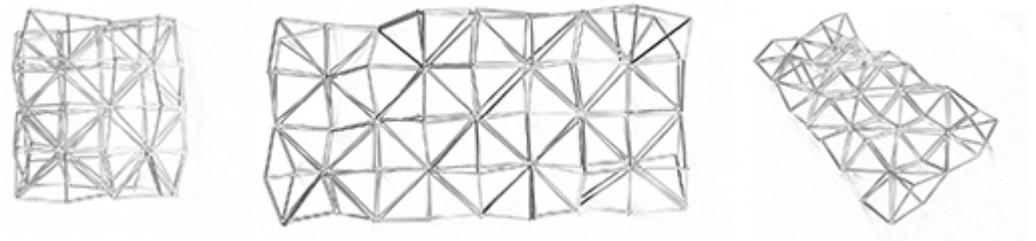
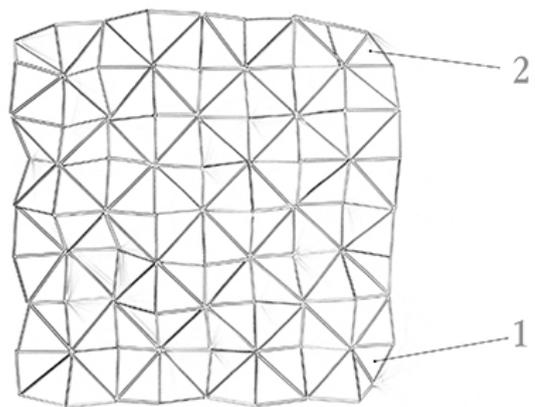
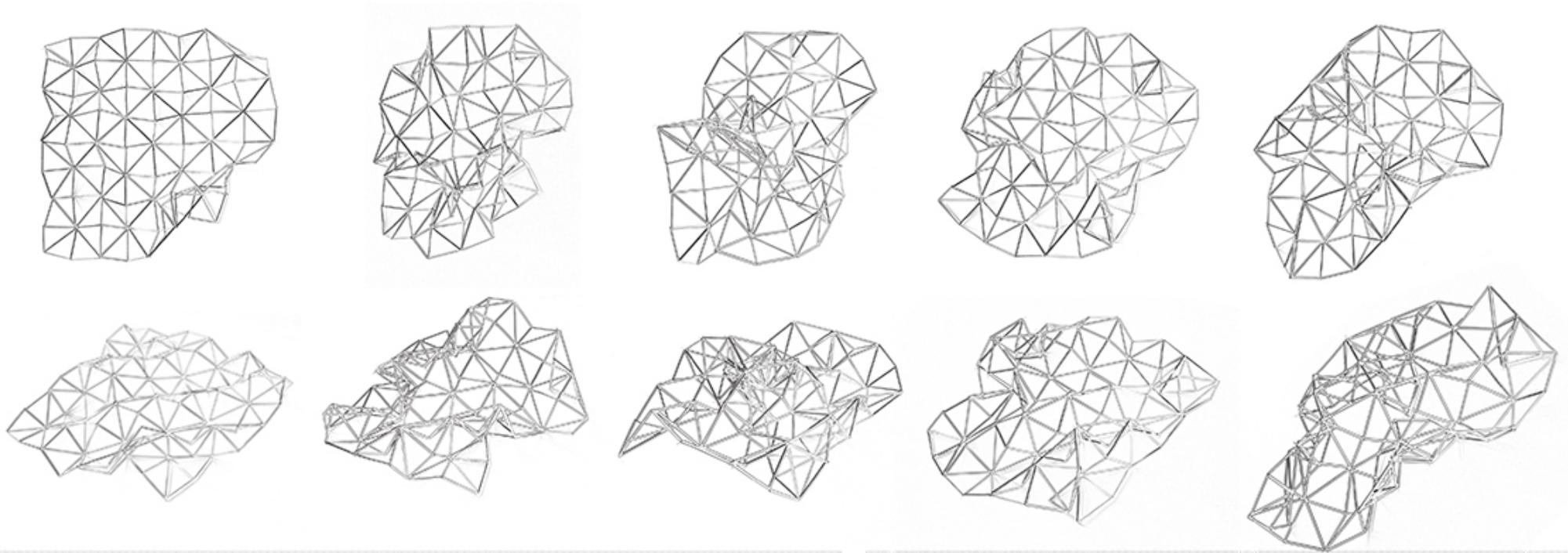


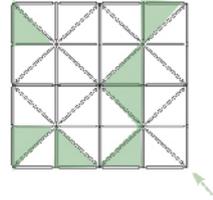
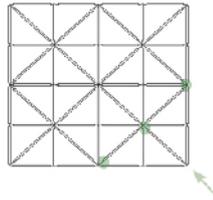
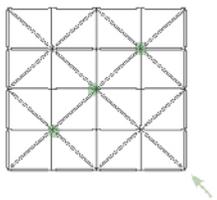
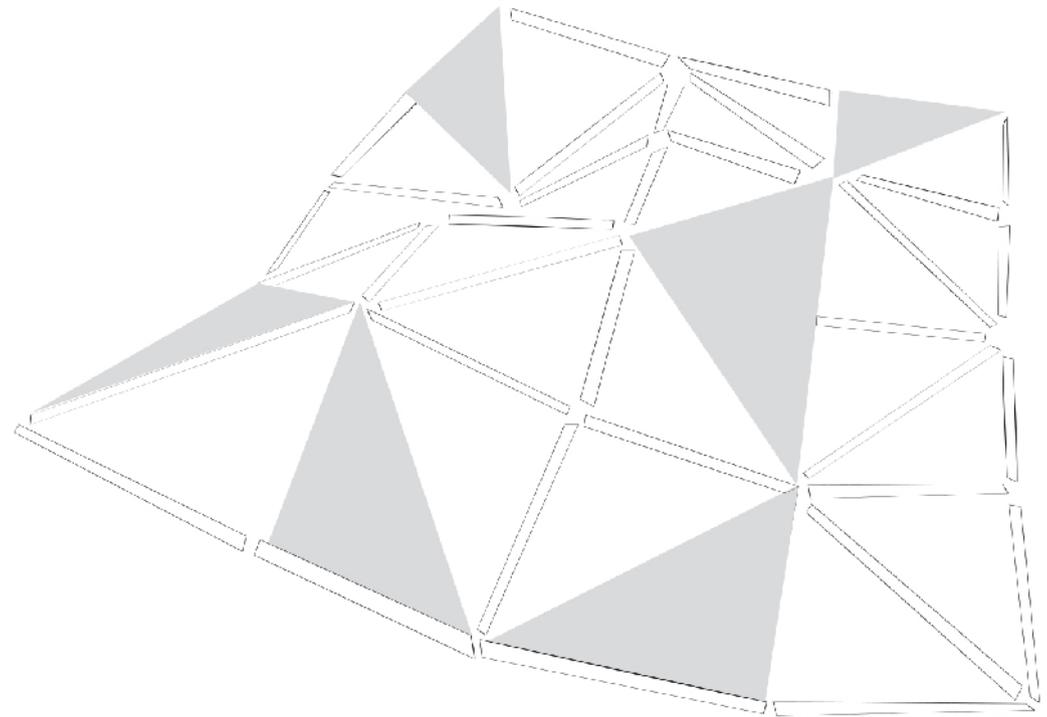
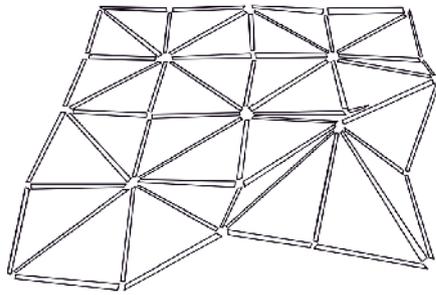
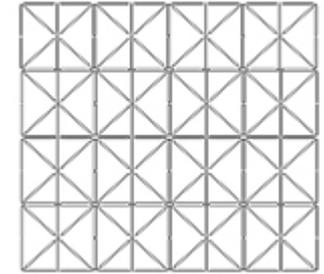
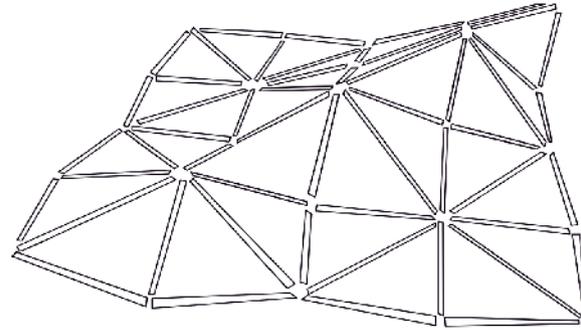
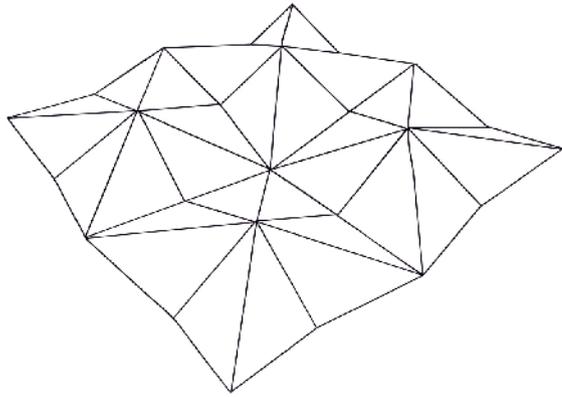


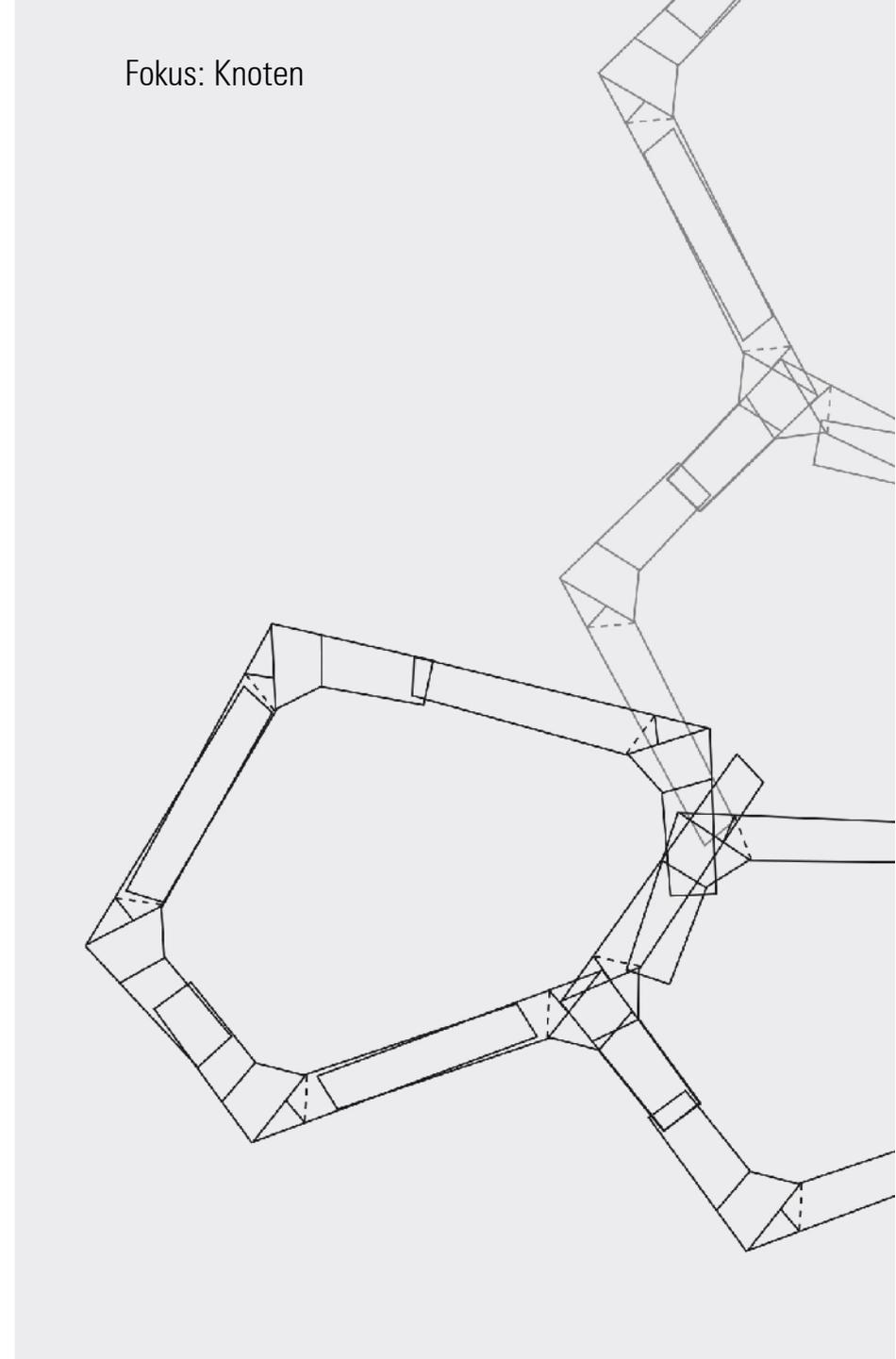
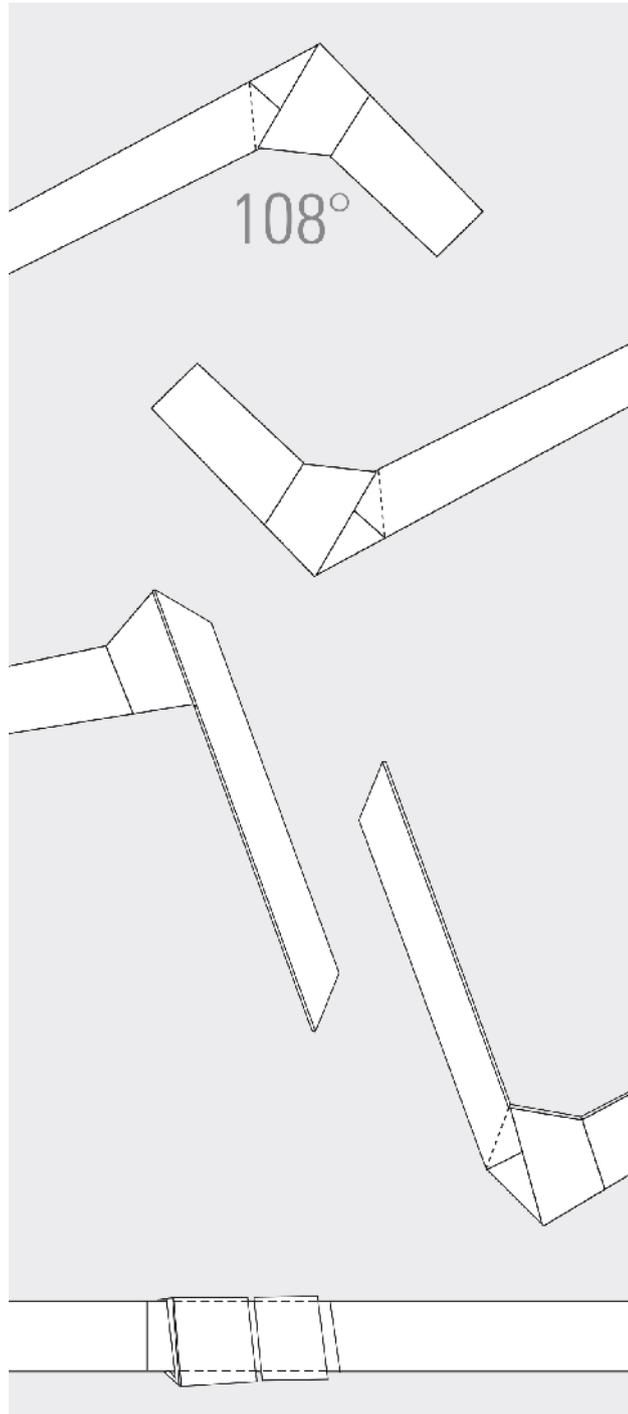


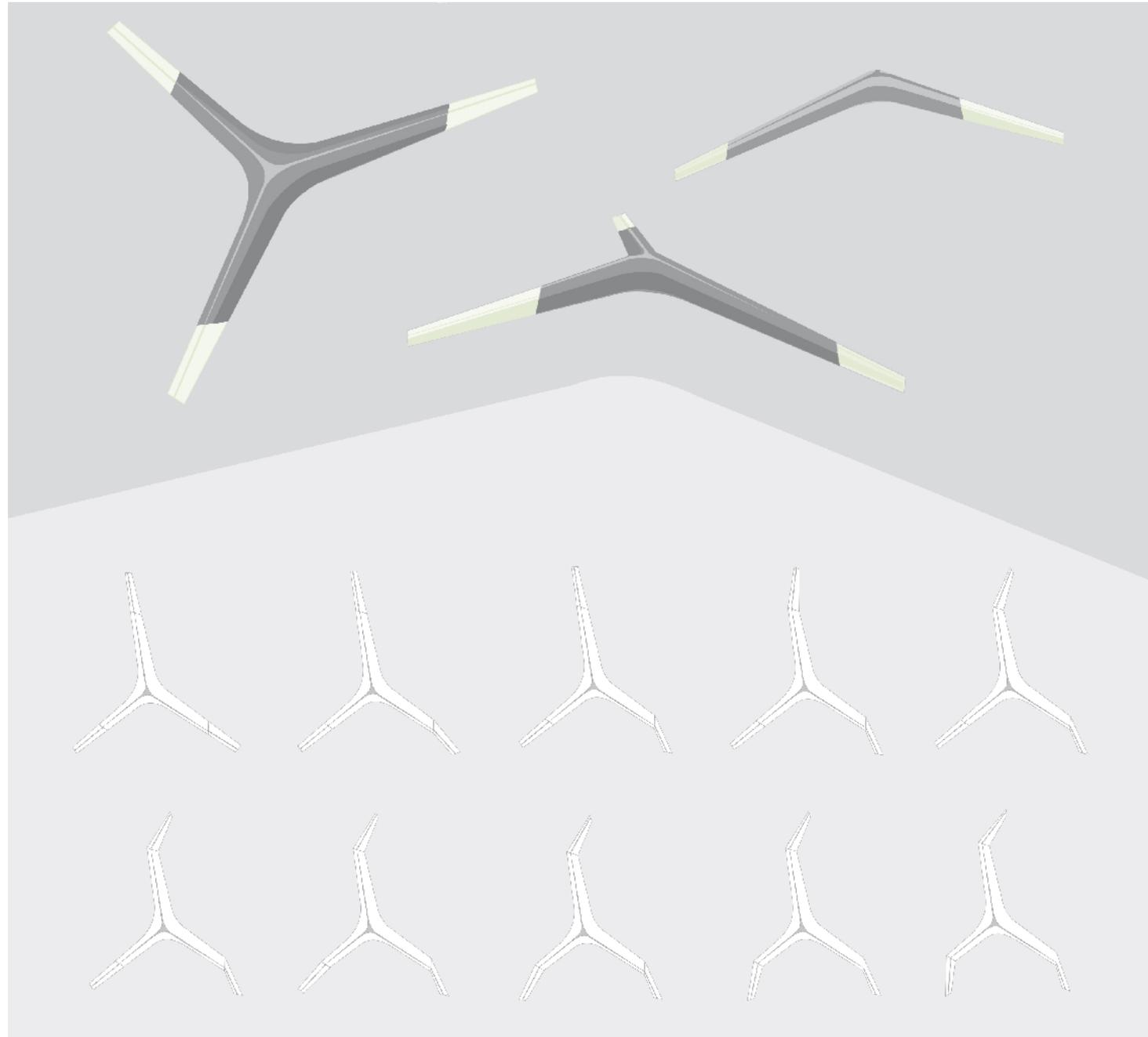


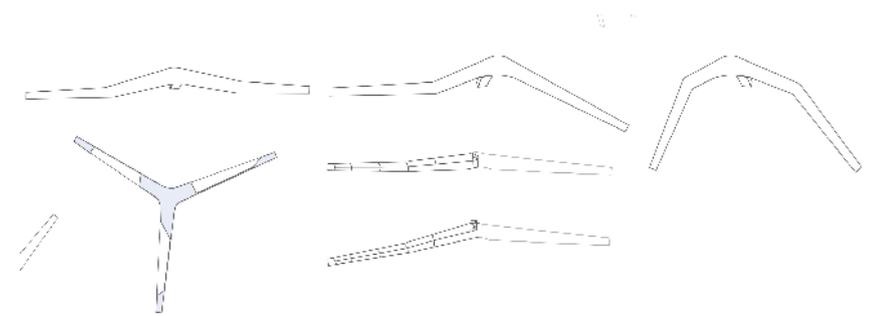
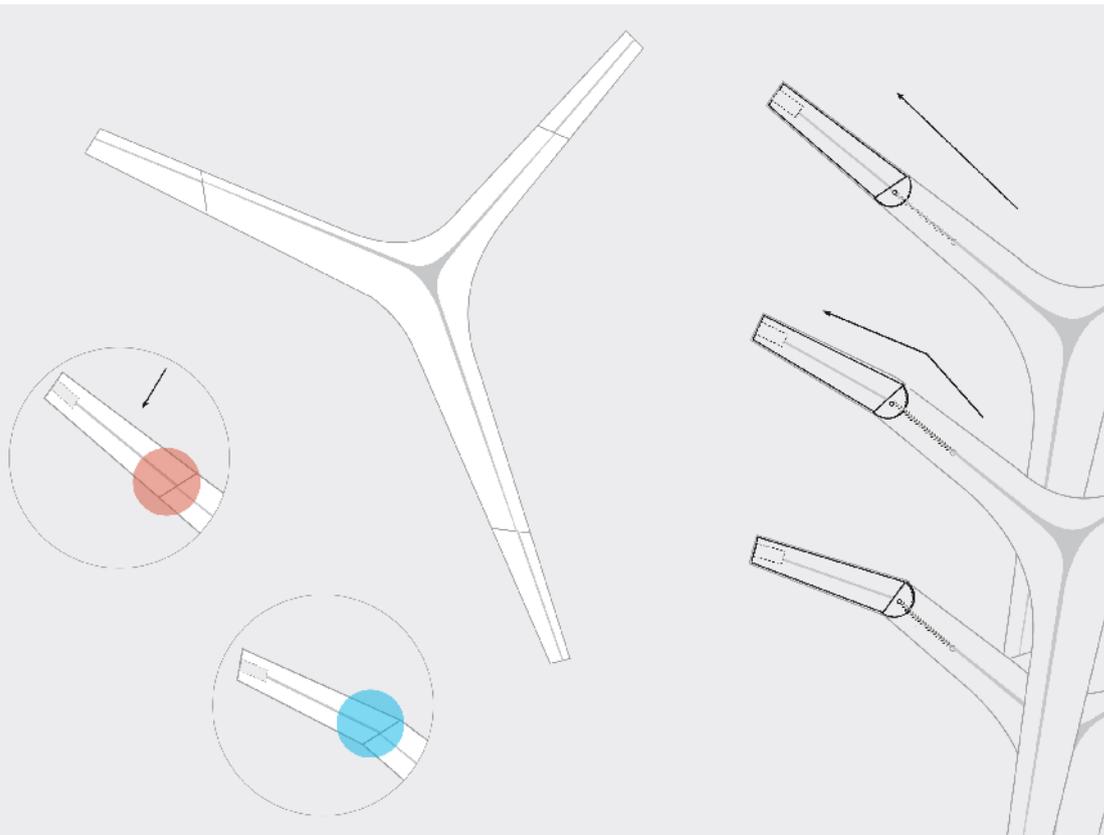
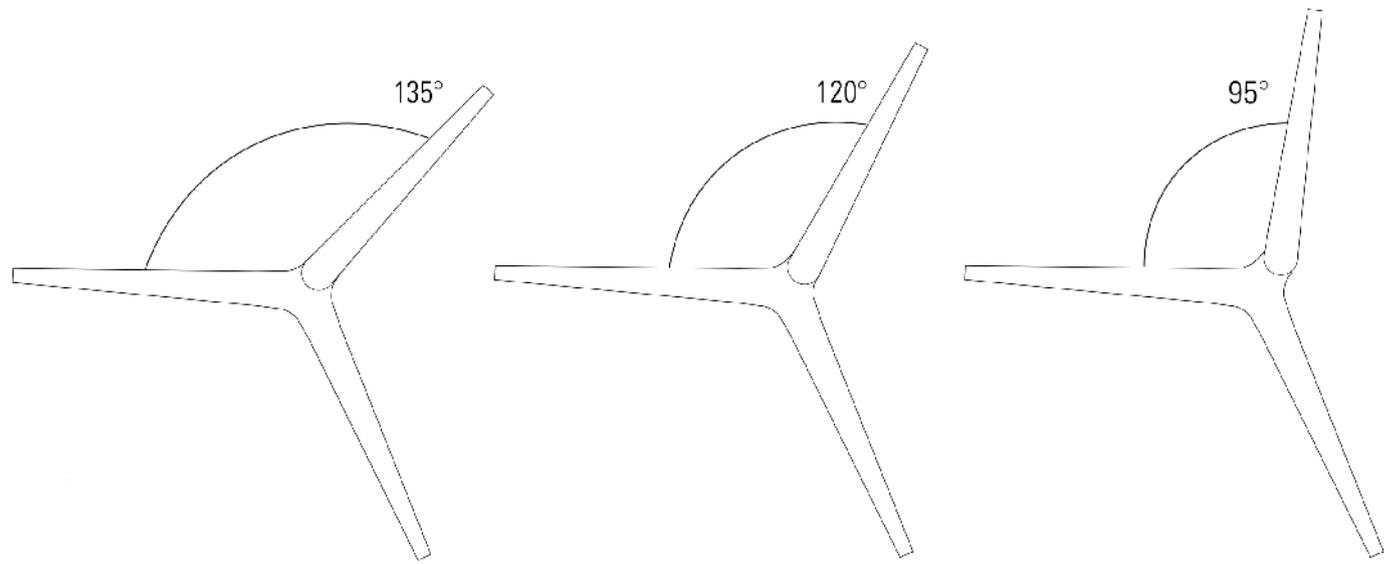




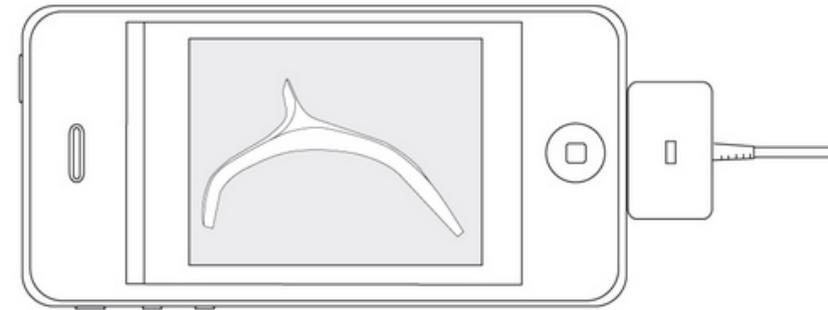
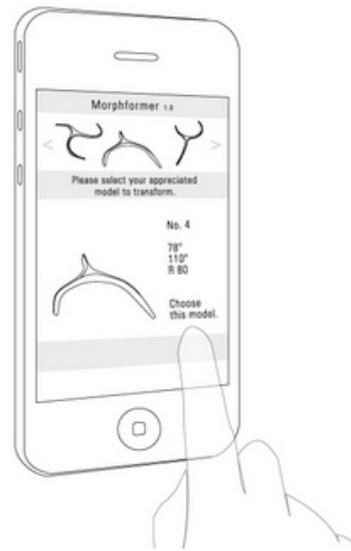
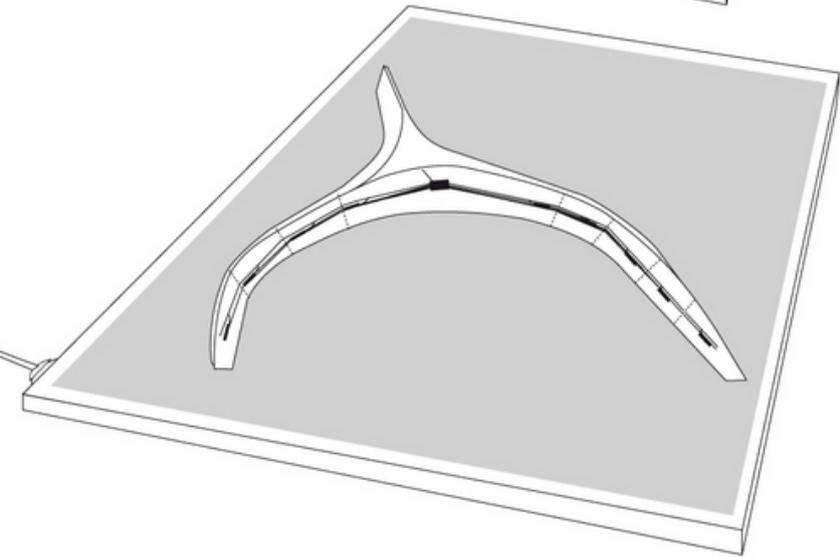
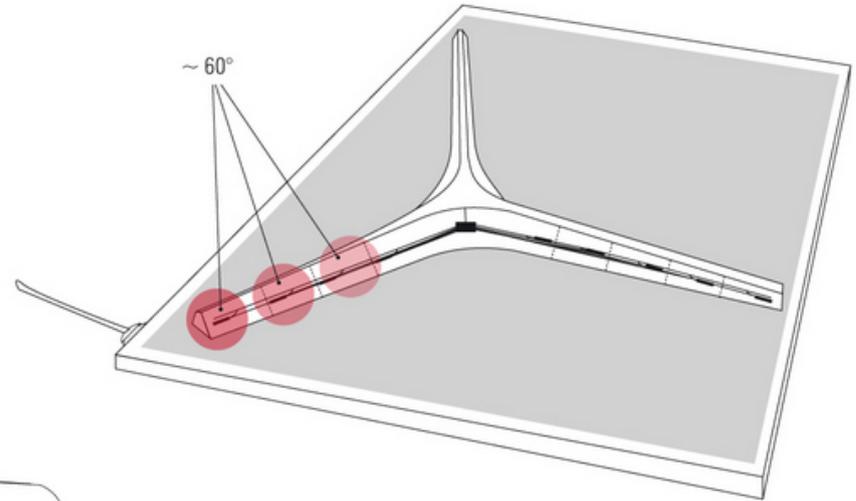
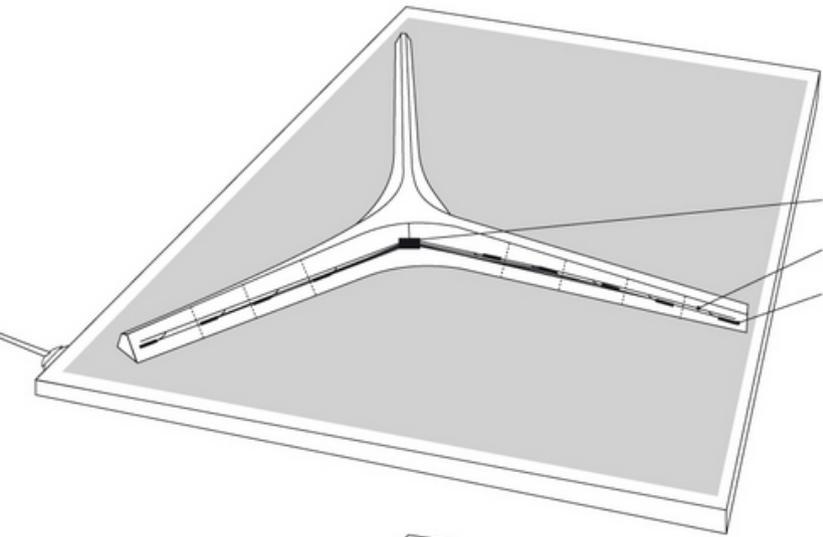


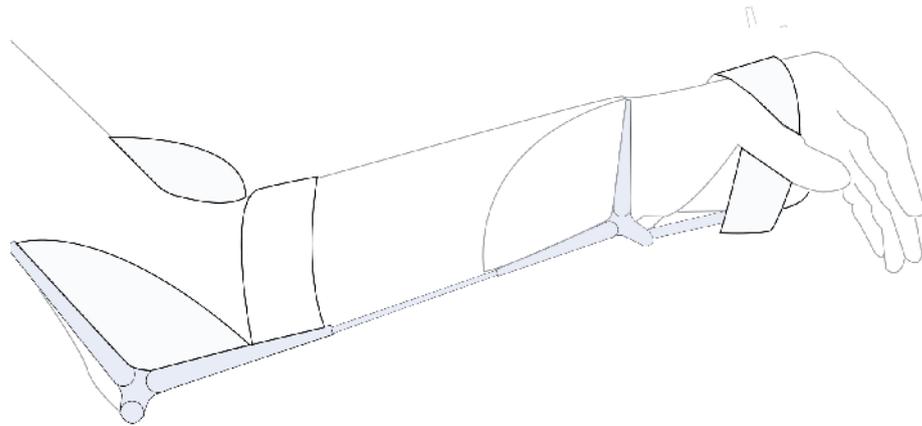
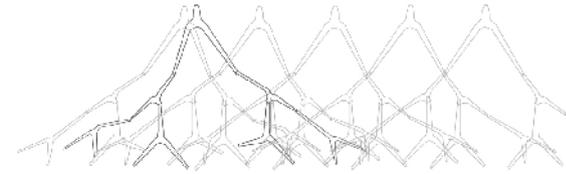
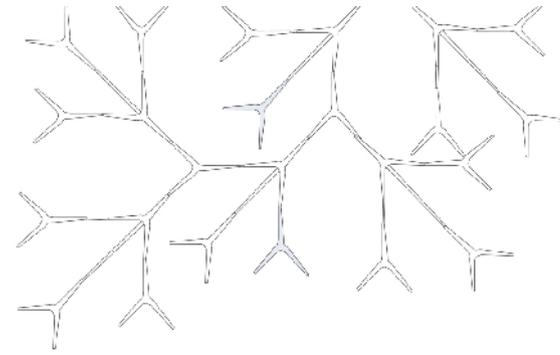
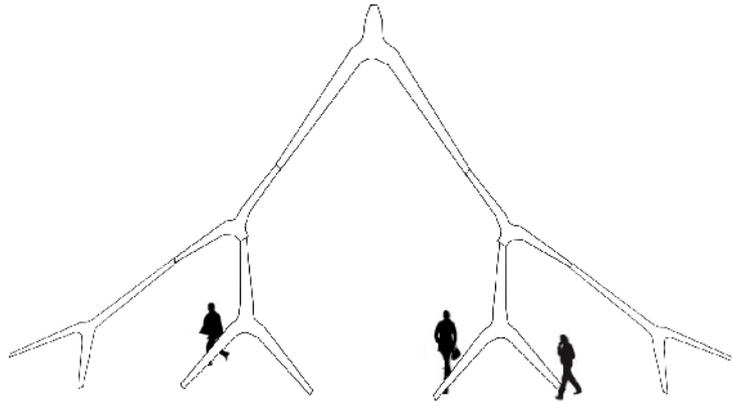




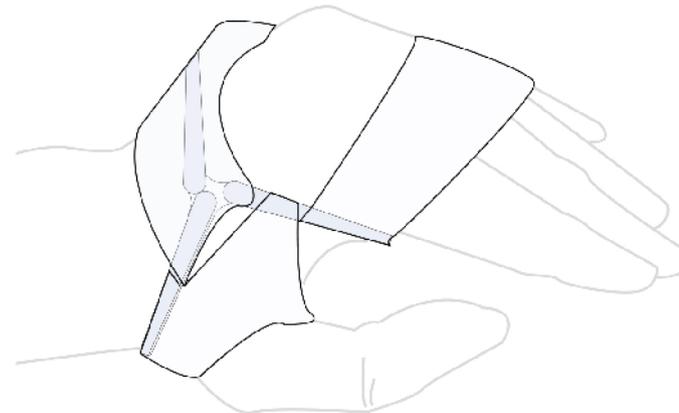






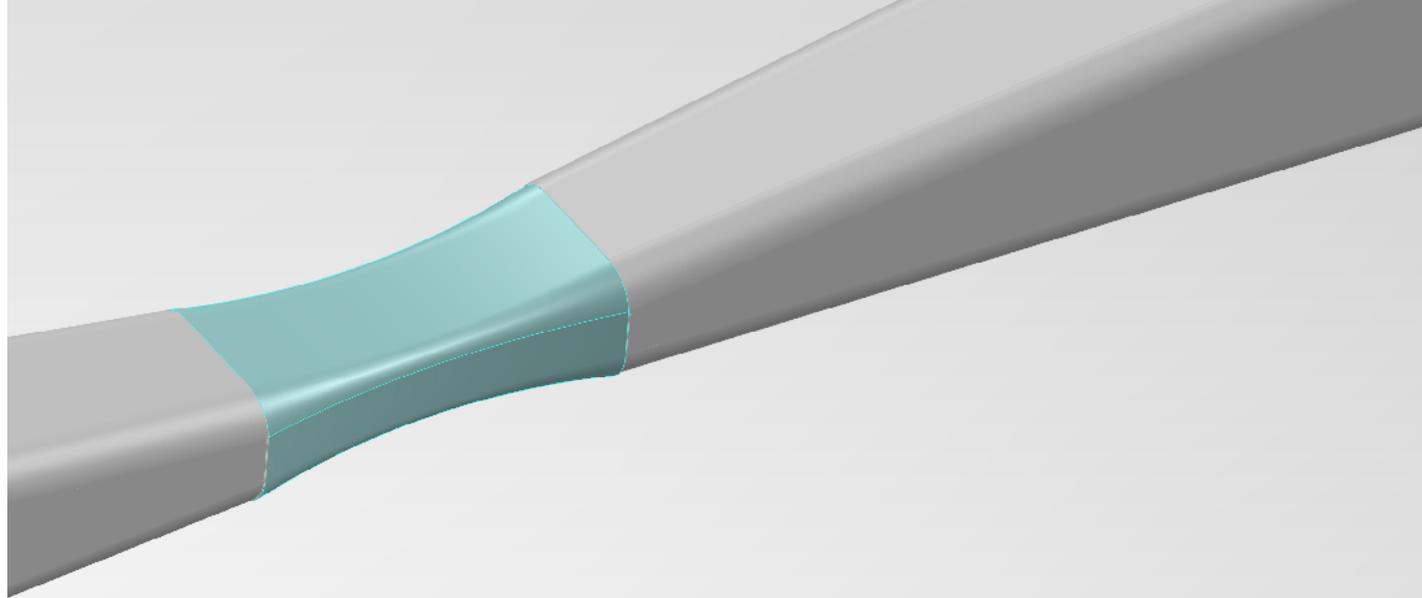


Anwendungsmöglichkeiten

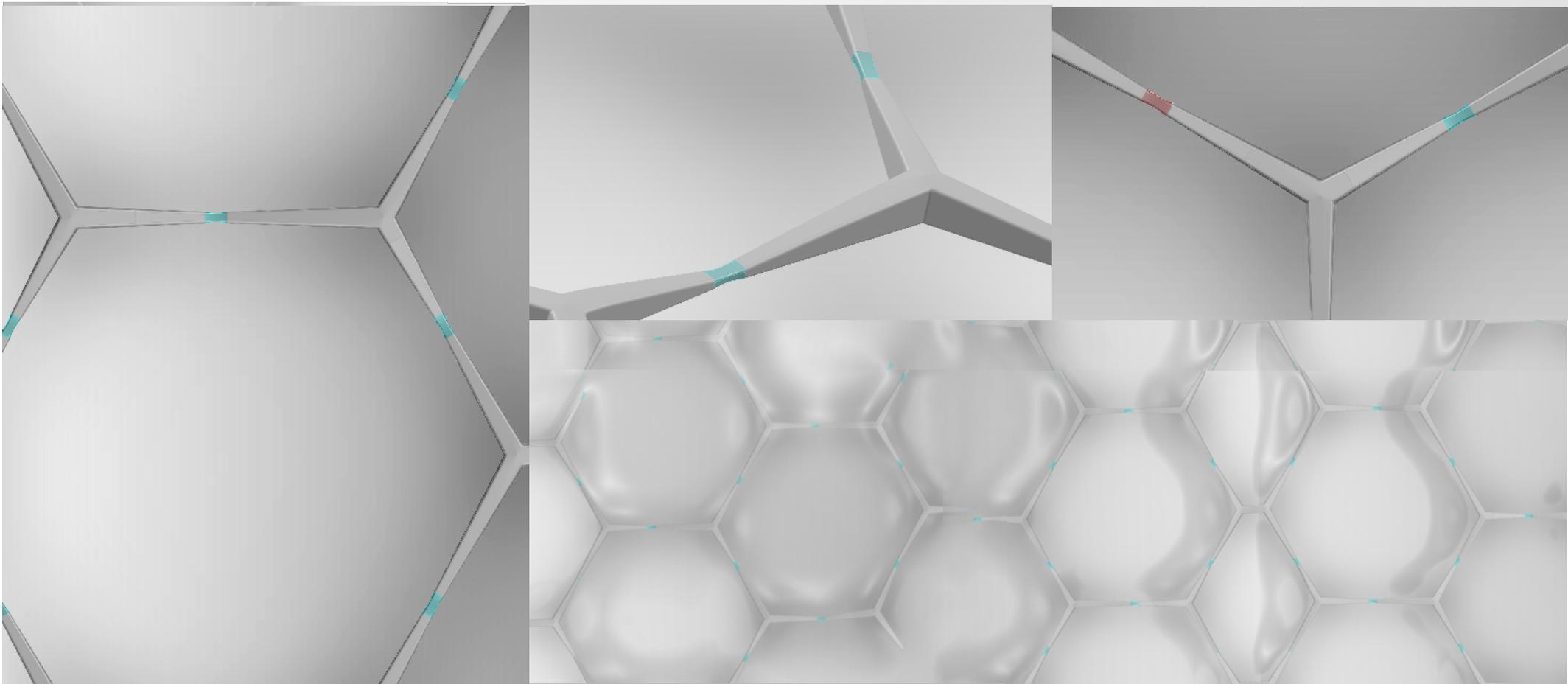


Einsatzgebiete:

- + sich verändernde Oberflächen
- + haptisch differenzierte Bereiche
- + individuell anpassbare Beläge



Bildung von Mikrostrukturen

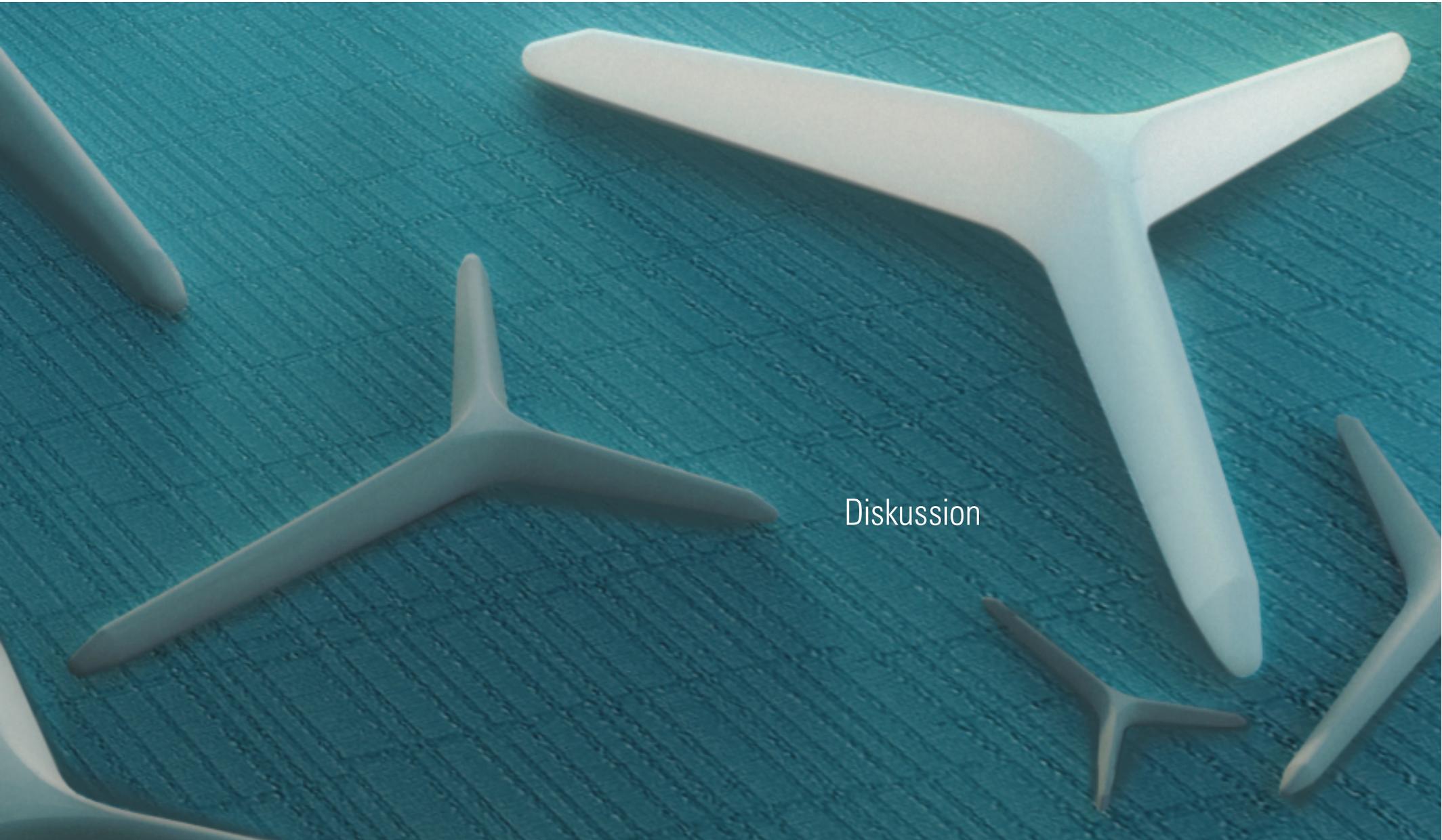


Gesamtes Projekt dokumentiert auf:

www.bioniceperiments.wordpress.com

www.reich-design.de





Diskussion