



Philip Stöckler: Cycle of Skin

Cycle of Skin

The work is about a regenerating skin, about fragments, joined to a surface, to a space, about destruction, about layering, a time based process, leaving its imprints like scars on the surface, about an accumulation of polymers, about an ornamentation, about a thickness, about an ever changing appearance.

Plastic, known as a material being synthesized from crude oil, embodies the extensive environmental impact of the anthropogenic era. But rather than using a limited resource the work moves in the sphere of biopolymers, based on the synthesis of organic ingredients to form thermoplastic starch. A material inherently connected to temporality and fragility by its hydrophobic property. Furthermore this peculiarity facilitates the opportunity of a residue-free decomposition of the material, reducing the human imprint on nature.

Brass elements complement the biopolymers characteristics, by formulating a thin, highly flexible and durable support structure, which changes its appearance in time. Further the material property of absorbing tensile and compressive forces are spatially expressed, by pulling the skin from the interior to the exterior and by pushing the skin from the interior to the exterior, forming a three-dimensional surface.



In a series of experiments, the material's properties and possibilities are examined: Measuring the TBS ingredients, investigating in manufacturing-parameters and analyzing their different mechanical characteristics. Basic ingredients: 85 % water, 11.5 % starch, 3.5 % softener



1



2



3



4



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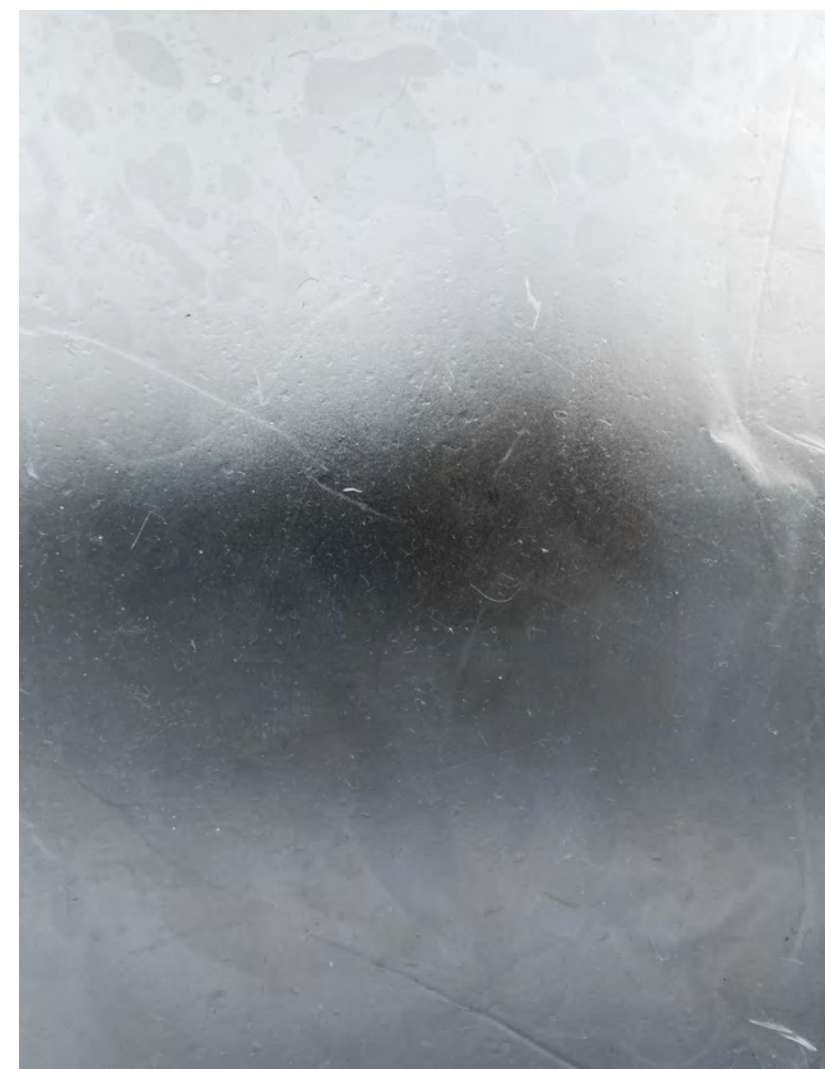
6



7

1-3 0 ml, 1 ml and 4 ml glycerin
4 frozen (-18°C) after pouring
5 heated (80°C) after pouring

6 dried (26°C) after pouring
7 poured on inflatable object



one-layer membrane: ~ 0.2 [mm]; 3-4 weeks



two-layer membrane: ~0.5 [mm]; 8-10 weeks



three-layer membrane: ~ 0.6 [mm]; 12 weeks



five-layer membrane: ~0.8 [mm]; 16 weeks

Detail

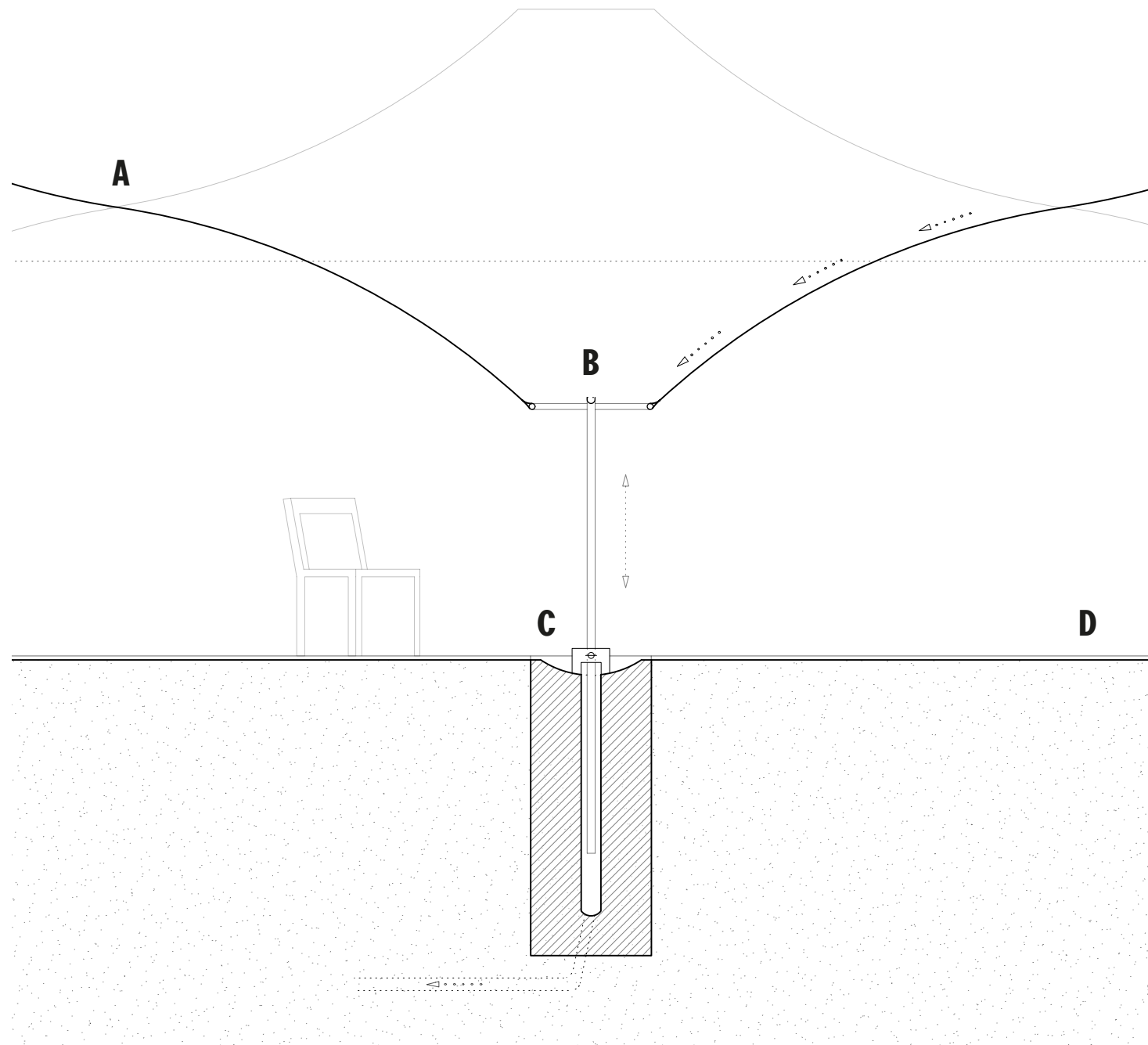
B I Membrane: thermoplastic starch foil
[reinforced at connection points]

A I Structure: Ø 24 mm brass rod
[pressure rod: angle adjustable frame]
[350 mm horizontal division]
[tension rod: height adjustable]
[copper alloy with 20% zinc]
[E-module 78-123 GPa]

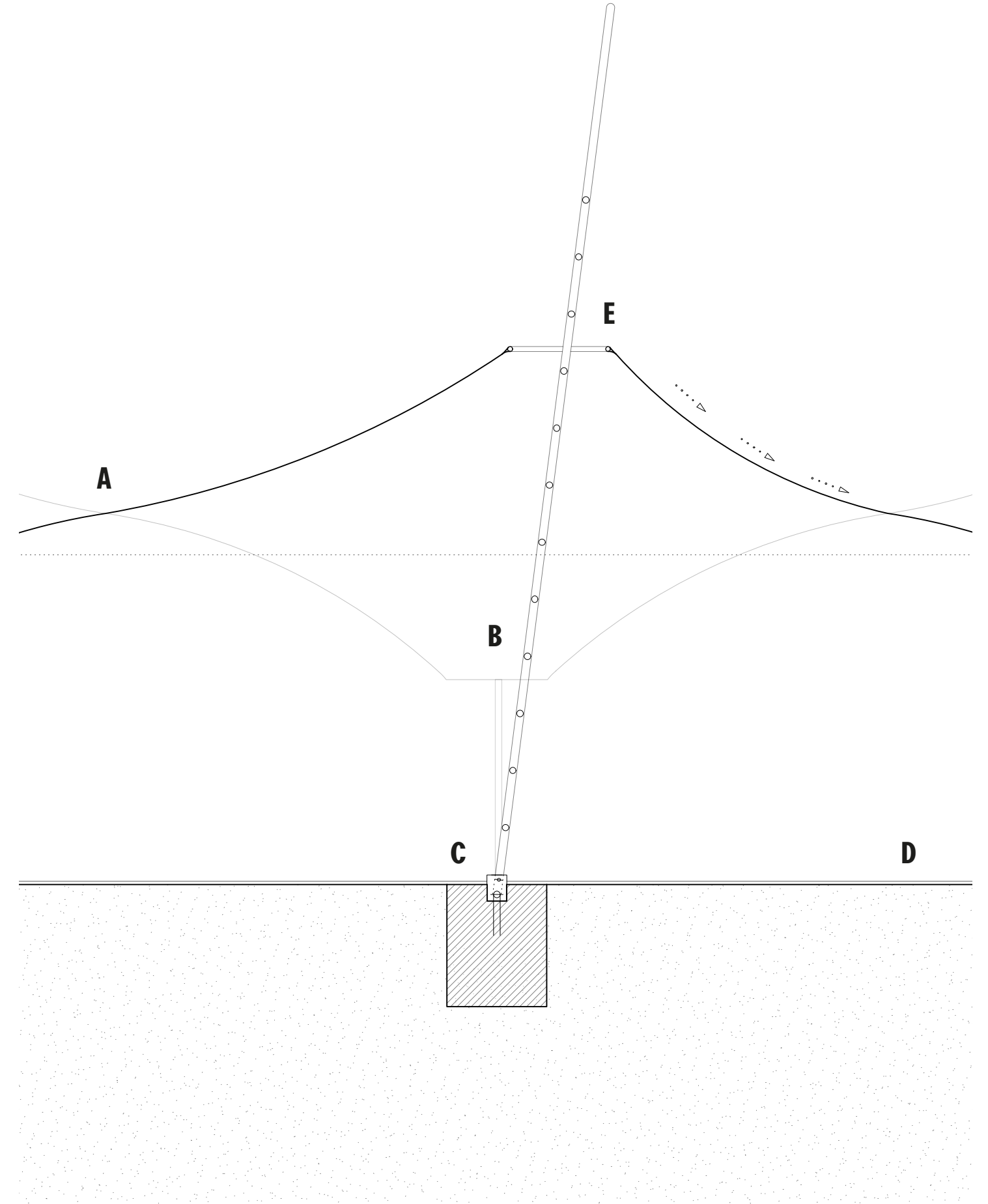
C I Base: articulated support
[height or angle adjustable]
[incl. clamping]
[incl. drainage system]

D I Flooring: 10 mm brass sheets
[polished]

E I Ring: Ø 24 mm brass rod



Section 1:25



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Brass. Alloy of the metals copper and zinc [up to 40%], E-Modul: 78 - 123 GPa, highly flexible, high tensile strength 310 - 460 MPa, anti-corrosive, unlimited life expectancy, patina formation



A Ø 6.0 mm; 2 x 0.5 mm
B Ø 2.0 mm; 2 x 0.3 mm
C Ø 1.5 mm; solid

D Ø 1.3 mm; solid
E Ø 1.0 mm; solid

