



ILEK

onICE

Workshop September 2015

University of Stuttgart
ILEK Institute for Lightweight Structures and Conceptual Design
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Summary

A Input

- 1 ILEK History
- 2 ILEK Current Activities

B Output

- 1 Experiments with Concrete and Ice
- 2 Design and Form-Finding

C Presentation | Discussion | Jury

- 1 Methodology and Workpieces
- 2 Design Object

D Incentives

- 1 Field Trips
- 2 Dinner

Input

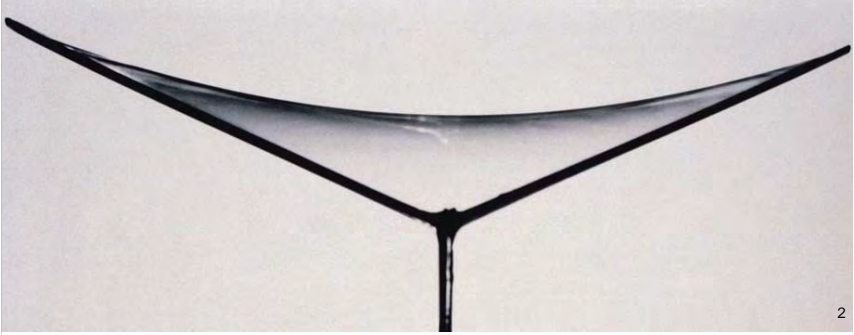
Lectures

1 ILEK History

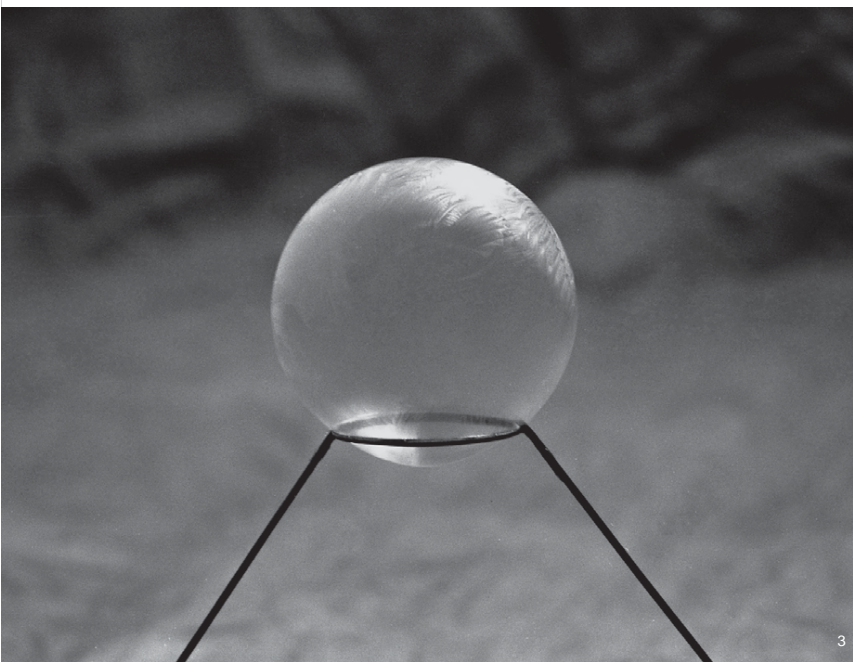
Aspects of sustainability and experimental form-finding methods
Interdisciplinary teaching for architects and structural engineers

2 ILEK Current Activities

Student Workshops on materials and form-finding methods
Current research on sustainable frozen formwork



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Output

Workshop

1 Experiments with Concrete and Ice

Content

Deeper understanding of the materials

Reciprocity between form and temperature

Result

Tabulation of results and insights

Production of small workpieces made of concrete and ice

2 Design and Form-Finding

Content

Design and production of structures using the frozen framework method

Result

Small design object



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Presentation | Discussion | Jury

Final Results

1 Methodology and Workpieces

Result 1

Quality of the research methods

2 Design Object

Result 2

Quality of the Design Object

Incentives

Events

- 1 Field trips
- 2 Dinner

Pictures

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- 1 Ice Structure
- 2 Soap Bubble Model
- 3 Frozen Soap Bubble
- 4 Soap Bubble Model
- 5 Workshop UHPC Studio
- 6 Workshop UHPC Studio
- 7 Workshop C+