Liquid Era
Research in Practice Grant Application

Anna Andronova | Da!Architects
LafargeHolcim Next Generation Awards Lab | Mexico City, 6 September 2018
I. The Digital Renaissance


LaFargeHolcim Awards for Sustainable Construction
The International VELUX Award for students of architecture
Tamayouz International Award - Excellence in Architecture graduation projects worldwide

Kazan, 2016
II.
From Sand to Water: Integrated Hydrological Architecture in Niger

Tutors: C.J. Lim, Simon Dickens, Gary Grant

Max Fordham Environmental Design Prize
Bartlett School of Architecture Medal
London, 2018

Sand Dam tectonic – dry season
Sand Dam tectonic – rainy season
III.

Suqian Nomadic Spa Gardens

The Second “Natian” Cup International Design Competition: A New-tech Led Intelligent Urban Life – Second Prize

London, 2018
Loop.pH installations

a. Mist Teahouse
b. Storm Lab
c. Pollinarium
d. Mind Pilot

London, 2018
The Shape of Water

Hydrological performance concepts

a. form-making (plasticity and weathering),
b. energy generation (streams and waves),
c. movement (hydraulic and floating dynamics),
d. biological performance (growth, sanitation, healing),
e. leakage, material degradation and decay.
I. Form finding

VR painting
Source: Google Images

II. Testing

Real-time particle-based 3D fluid simulation
David Lee, 2016
Methodology | Fabrication stage

III. Fabrication

a. Holographic Fabrication of Woven Steel Structures
   CAADRIA, Tsinghua University, 2018

b. Microsoft Hololens demo

c. On-site holographic projection
   Loop.pH studio, 2018
Output

a. water resilience architecture morphologies album
b. holographic construction guidelines
c. prototype