Studio Anne Holtrop

ETH Zürich

HS21

MATERIAL GESTURE:

CHANGE

Towards Hydroscopic Design

Olafur Eliasson, RIVERBED, 2014. Water, blue basalt, basalt, lava, stone, wood, steel, foil, hose, pumps, cooling unit. Installation view: Louisiana Museum of Modern Art, Humlebæk, Denmark, 2014. Photo: Anders Sune Berg. Courtesy of the artist; neugerriemschneider, Berlin; Tanya Bonakdar Gallery, New York / Los Angeles. © 2014 Olafur Eliasson

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Towards Hydroscopic Design

This semester, in response to the topic of durability, we will focus on water. We will research water as an agency continuously shaping our environment and reacting to and forming other materials. At the same time, water will also be seen as the crucial element shaping the work of an architect.

Our relationship with water is complex and contradictory. Water is vital to all forms of life and to the genesis of matter, organic and inorganic. And yet it remains relatively invisible, and as a design agent, underestimated.

Architecture today is, to a large extent, about controlling water, whether in the atmosphere, in the soil, or in a building. Condensation, rainwater penetration and unwanted moisture can damage a building and impact on

its longevity. An architect's response to the durability of a construction and its materiality generally consists of designing resistance against weathering caused by water. Our society increasingly demands controlled, standardised comfort: the building envelope separates indoor and outdoor climates and ecologies; the vapour barrier keeps window openings airtight and ensures the high performance of thermal insulation. In turn, the pesticide-applied plaster prevents mould growth on the façade.

Seen in a wider territorial frame, analogous to its role for architecture, the control of water following the Industrial Revolution has been crucial to the creation of the modern rationalised landscapes we now inhabit. It appears, however, that the modern mentalities and techniques of control of water have reached their limits. Today, water stands at the centre of the most urgent environmental challenges—from the melting glaciers, increasing droughts and floods and the demand for (green) hydroenergy, to the struggles over water pollution and access to water sources, water is becoming increasingly precious, scarce and politicised.

In this semester, we offer the possibility to reimagine the notion of durability by reconsidering our fraught relationship with water. In a movement from

hydrophobic to hydroscopic design of buildings and environments, we will embrace the fundamental and unique characteristics of water and its influence on the changing states of matter and ecologies in the territory and architecture.

The sites we will study and travel to are situated in the Valais, from the slopes of Jungfraujoch to the Rhone River. Following the trail of water, we will encounter extraordinary places—convergence of glaciers, geological formations, a water reservoir and a dam, a hydroelectric power plant, a rare crystal and mineral site, riverbed movements, an active stone quarry, a salt mine and the largest debris flow measuring system in the world.

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