



EXPLORING THE BUILDING ENVELOPE

Ryan Otterson / Spring 2020 / ARCH 4405/6605 / Tues. 10:10am-12:05pm / 142 E. Sibley

"The Primitive Hut" has been a foundational topic in Architectural discourse since Marc-Antoine Laugier published *Essai sur l'Architecture* with Charles Eisen's famous illustration. Laugier sought to describe an anthropological relationship between humankind and nature through the act of building. While Laugier divided Architecture into elements like column, entablature and pediment, 20th and 21st century tectonics and building science have produced the paradigm of the layered "building envelope"; While architectural theory continues to prioritize "space", symbol, reference etc., what about the "stuff" that fundamentally defines the duality of interior and exterior? Modern building envelopes draw a multitude of boundaries: **thermal, air, vapor, sound, light**, and more. While some materials take on multiple functions, others are layered as a composite response to a set of conditions. Perhaps even more critically, what does this mean in this current era of climate change?

In this course, we will trace this conceptual boundary: instead of seeing Architecture only through the lenses form and space, we will explore the enclosure of volume and the separation of environmental conditions. We will explore together the building envelope in physics, in current practice, in history, and in the speculative future. **Students in small groups will analyze case studies and ultimately adapt/rethink their chosen case study to a small, simple, climate-specific volume; resulting in a class-wide collection of "primitive huts" that demonstrate the urgency of climate and tectonics to architectural discourse.**

1) Visitor Center with Thatch Roof in Sweden / SandellSandberg Arkitekter / Detail Magazine 11.2019 2) Service Facilities of the SBB in Zurich / EM2N / Detail Magazine 7/8.2014 3) Harvard University Science and Engineering Complex / Behnisch Architekten 4) Frontispiece of Marc-Antoine Laugier's *Essai sur l'architecture* 2nd ed. 1755 by Charles Eisen 5) Artists' Studios in Aberystwyth / Heatherwick Studio / Detail Magazine 7/8.2010 6) Office Building in Geneva / SOM / Detail Magazine 6.2016 7) Unilever Headquarters / Behnisch Architekten