Universität Innsbruck
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Studio Colletti

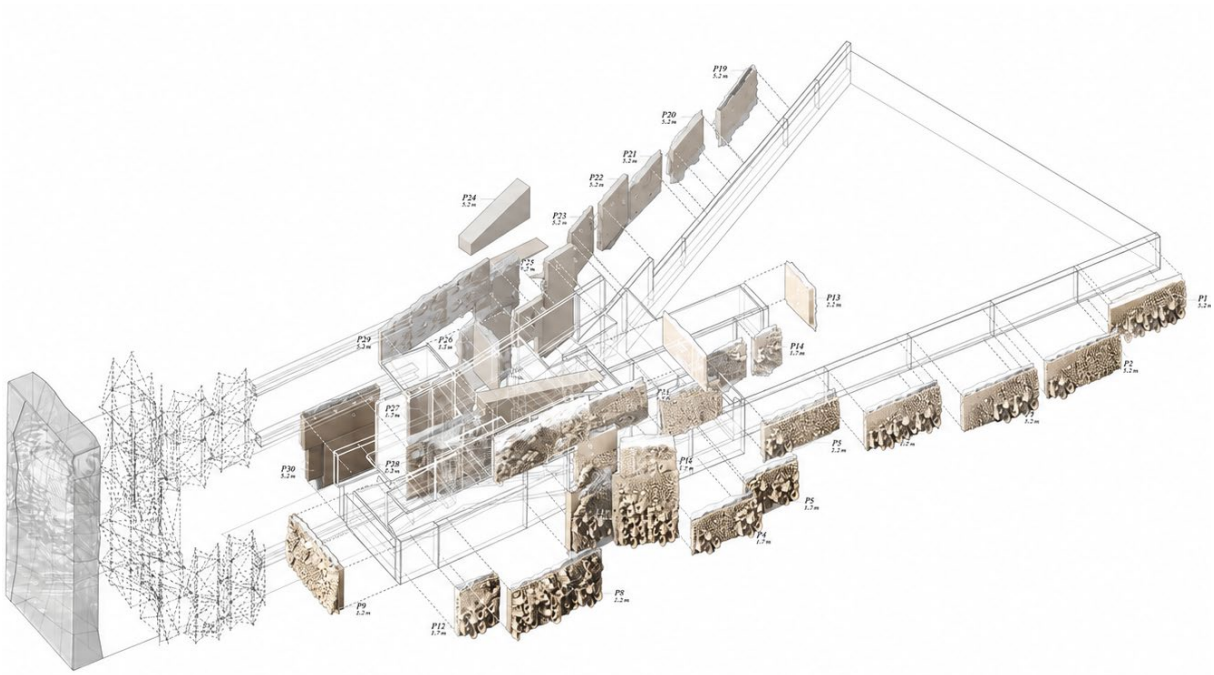


*Image source: Magdalena Pietryszyn*

848126 PJ Design Studio 2

# Tempered Grounds

## *On Volume and Warmth*

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Earth remembers how it was handled. Rammed, it holds the pressure of the blow; cast or poured, it records the water that has left it in shrinkage cracks and surface grain that no drawing can fully anticipate. To temper earth is both to prepare a mix and to moderate a climate; the studio pursues the two as one operation. The studio treats these material tendencies not as defects to be suppressed but as its primary design instrument. Working from a fixed mass of rubble, one quantity of earth as the entire material budget, students redistribute a single volume through ramming, casting, pouring, foaming, compression, and 3D printing. Through this, we turn the same matter into different structural, thermal, and spatial conditions while unsealing ground.

The central question is one of exchange: how much surface can be won from a finite volume without spending its capacity to bank and release heat. Volume tempers; surface negotiates. The same tempering logic extends beyond the building envelope: the ground that is not built on is asked to hold, slow, and release water, so that retention, planting, and the life of the soil are designed with the same attention as wall and hearth. Read through Semper's hearth and mound, earth appears at once as a centre of gathering and climate and as ground deliberately raised into inhabitable form: terrain made habitable, where mass is structure, thermal regulator, and social centre at the same time.



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## APPROACH

The aim of the design studio is to introduce students to architectural design as a process of spatial thinking, A site in Innsbruck with a certain size is given. The top surface is scraped off to a depth of one metre. The excavated material remains on site and must be used for building. The subtracted volume, therefore, equals the volume of the intervention. In successive steps, students develop different design strategies for structural and non-structural components. Each intervention is organised around a central 'massive' element that structures the building's microclimate, around which the programme is aggregated seasonally. The remaining area of the plot will be ecologically integrated into the proposals, specifically through rainwater management.

## METHODS

The studio will introduce students to digital environmental simulations, hands-on prototyping, weathering experiments, and computational design techniques. The focus is on experimenting with both digital (drawing) and material (making) methods in a hybrid fashion.

## PERTINENCE

Based on the findings of the Second Austrian Assessment Report on Climate Change, the projects will offer insights into designing innovative buildings that respond to climate change. The focus will lie on local and bioregional materials, land use, water management, and passive heating strategies.

## LITERATURE

Bennett, Jane (2010). Vibrant Matter: A Political Ecology of Things. Duke University Press.

Hönger, Christian & Roman Brunner (2013). Strategy. In Tina Unruh (Ed.), Climate as a Design Factor: Architecture and Energy (pp. 34–57). Quart Verlag GmbH.

Kapfinger, Otto & Marko Sauer (eds.) (2015) Martin Rauch: Refined Earth – Construction & Design with Rammed Earth. DETAIL.

Kapfinger, Otto (2001). Martin Rauch: Rammed Earth / Lehm und Architektur / Terra cruda. Birkhäuser.

Körner, Andreas (2020). Unearthed: Cavernous Strata. In L. Flowers (Ed.), Dichotomy: Vol. 25. Soil (pp. 8–25).

Semper, Gottfried (1851/1989). The Four Elements of Architecture and Other Writings. Translated by Harry Francis Mallgrave and Wolfgang Herrmann. Cambridge University Press, 1989.



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