



FINITE MATERIAL

Fall 2020 | ARCH 4509/6509 | Time + Location: TBD | Dillon Pranger | drp94@cornell.edu

It was estimated in 2008, now more than a decade ago, that at the current rate of extraction approximately 61 years of copper, 40 years of tin, and 42 years of lead remained in the earth's crust.¹ Materials are finite and we will soon need to find alternative solutions to the acute problems of global consumption and disposal.

This course will investigate the historical and current trends of material consumption in relation to our industry's production. Traditionally human beings have built with close-to-hand materials, but as we become a more interconnected and global society, materials are more easily accessible, mined, and depleted at the convenience of modernized civilization. Looking at building precedents through focused research on these specific materials (natural or waste), the course aims to not only better understand their function in architecture, but how we may begin to draw and develop new building assemblies of the future. Responding to research and readings, students will develop a series of alternative architectural elements through focusing on designing details that reuse, replace, or manipulate their selected material. The course will be organized into two parts. The first part will comprise of short lectures and selected readings which will be discussed as a way for students to develop their core knowledge while also expanding their frame of reference. The second part will be organized through a series of representational exercises that challenge students to reinterpret these materials through drawing building assemblies. The work will be discussed throughout the semester at pin-ups and at a final review.

¹ Jaakko Kooroshy, Christa Meindersma, Richard Podkolinski, Michel Rademaker, Tim Sweijts, André Diederren, Martijn Beerthuisen and Sophie de Goede. *Scarcity of Minerals: A strategic security issue*. The Hague Centre for Strategic Studies (2009).