

# DIPARTIMENTO DI GEOSCIENZE

## Seminario Dwelling in the Anthropocene: sustainable supply chains for the built environment

Giovedì, 18 Novembre – ore 16:30 Aula Arduino

## Relatore: Prof. Luca Valentini

Dipartimento di Geoscienze, Università di Padova



### Abstract

Reconciling the need of meeting the demand for reliable, durable and cost-effective building materials, without impacting on the environment, poses a societal conundrum and an extraordinary technological challenge. It is reported that Nearly 40 billion tonnes of raw materials extracted from the Earth's crust each year feeds into the construction industry. The associated material flows dramatically contribute to the anthropogenic CO<sub>2</sub> emissions. It is therefore mandatory that more sustainable supply chains are envisaged, based on the use of locally available resources and on the principles of the circular economy, with the aim of mitigating: a) CO<sub>2</sub> emissions associated with extraction and processing of raw materials; b) overall volumes of virgin raw materials and unrecoverable waste; c) negative impacts on landscapes by large-scale quarrying and mining operations. This seminar will illustrate some possible solutions to these issues, and will reflect on the role of the geoscientist in planning a sustainable urban future.

#### Proponente: Commissione Seminari