

# LIFE Eco Tiles

ECO innovative methodologies for the valorisation of construction and urban waste into high grade TILES

Eleonora Paris – University of Camerino, Italy





## ECO TILES Project

ECO innovative methodologies for the valorisation of construction and urban waste into high grade TILES

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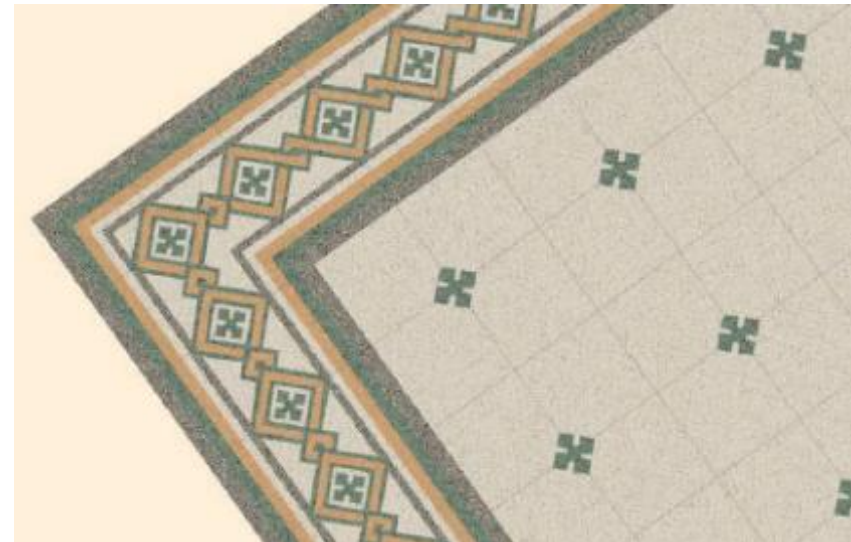


from Roman mosaics...





... to terrazzo tiles



# terrazzo tiles

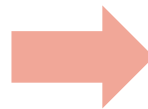


## Characteristics:

- Traditional
- Artistic
- Widely used
- Versatile
- Extremely durable
- Produced at room temperature



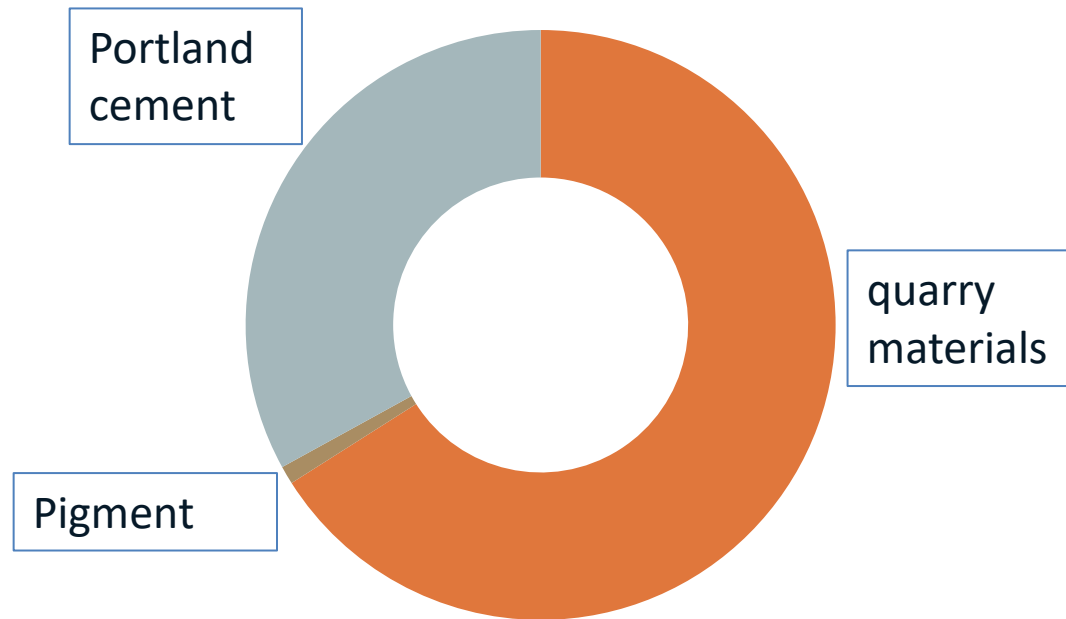
- Cement-based
- Contain raw materials



# comparison



## Traditional Terrazzo

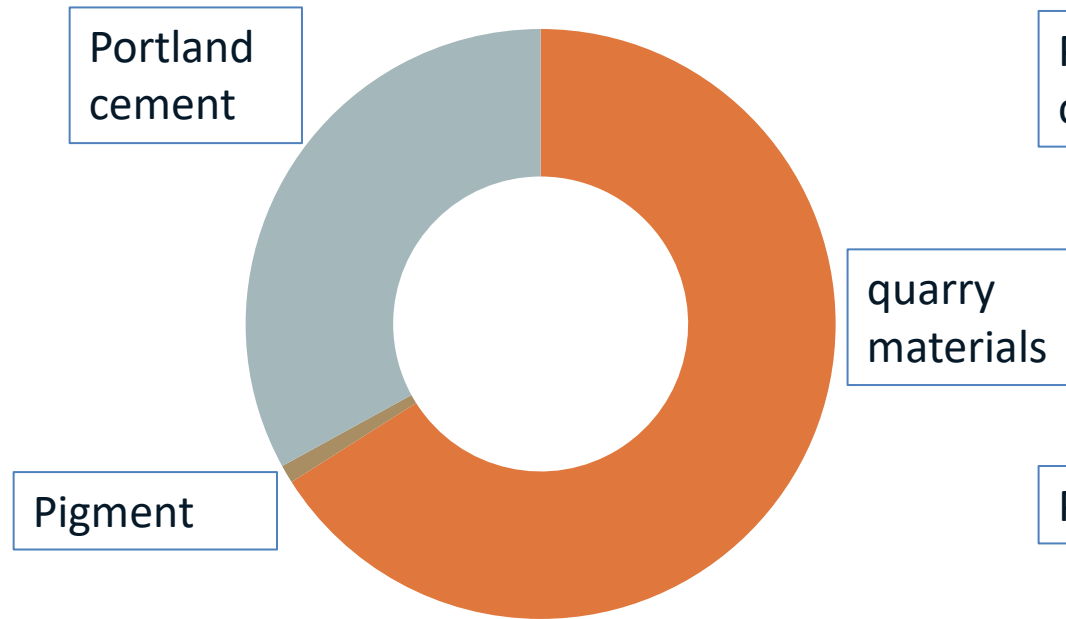


100%  
raw materials

# comparison

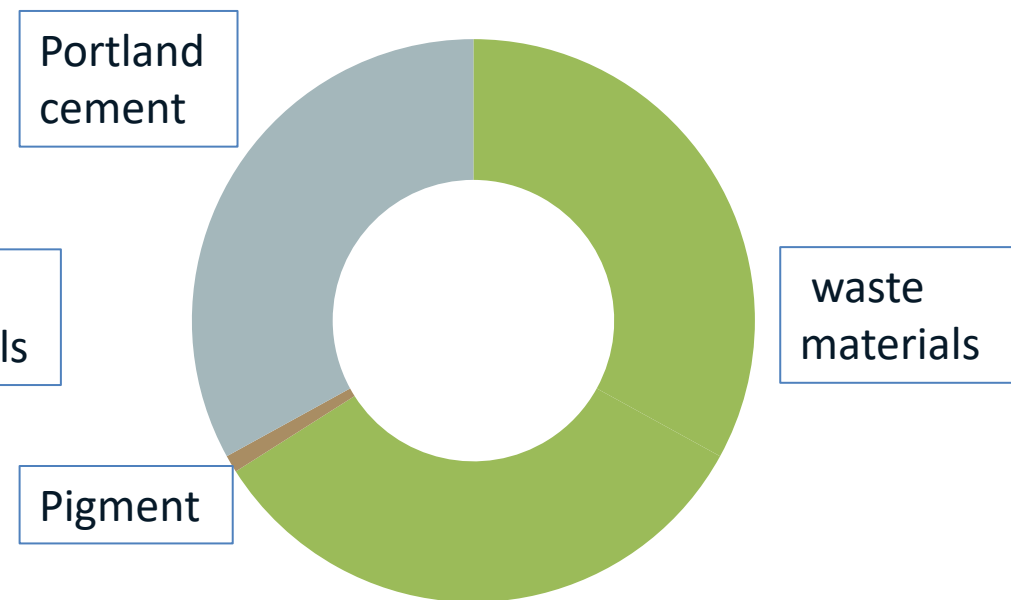


## Traditional Terrazzo



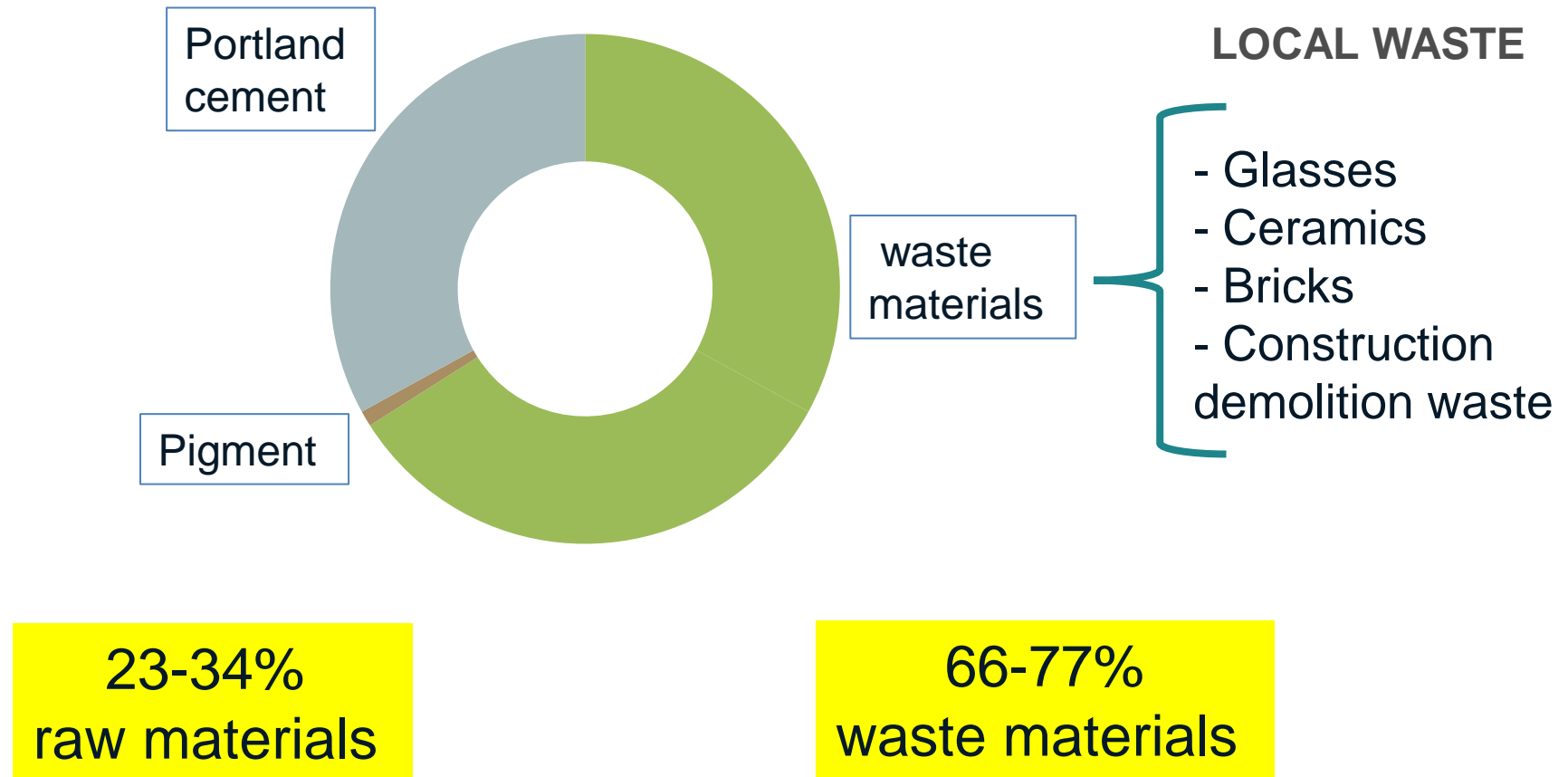
100%  
raw materials

## ECO TILES Terrazzo



23%  
raw materials

## ECO TILES Terrazzo





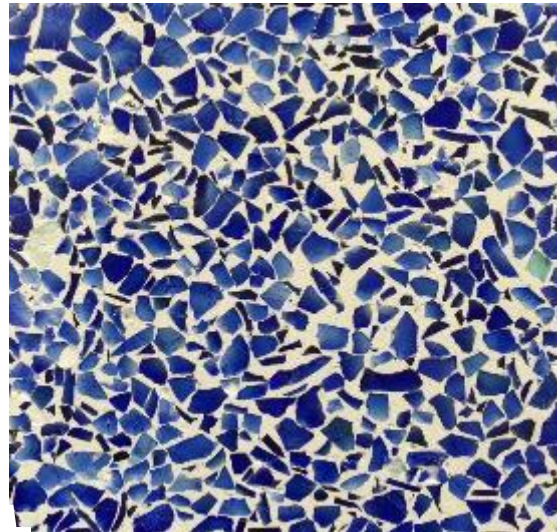
# Eco tiles



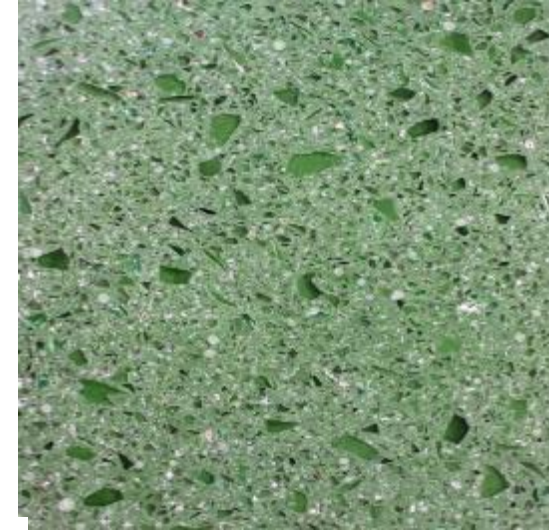
wind



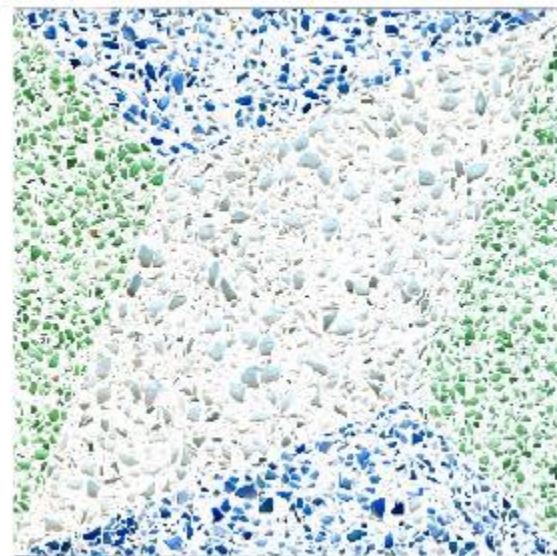
sky



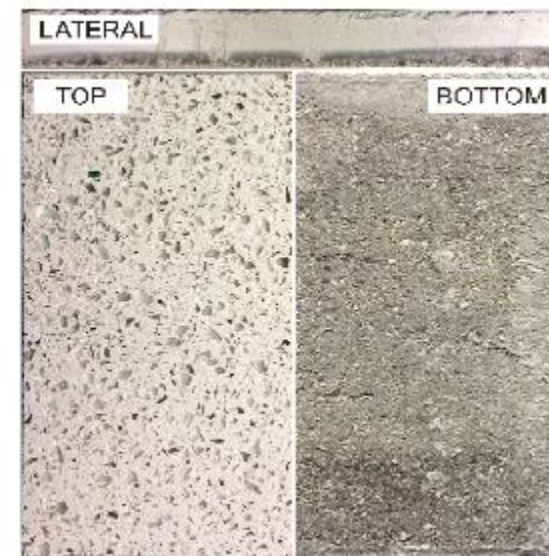
musk



flask



wind rose



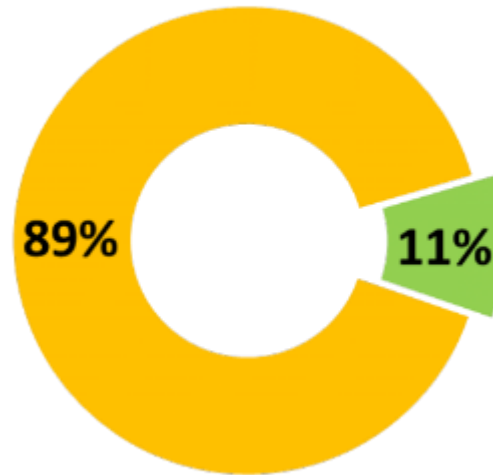
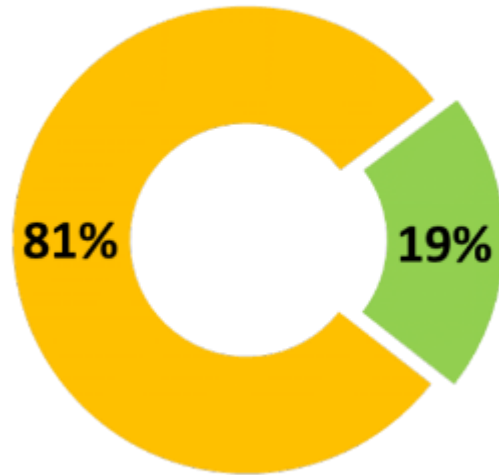
cdw

# LCA Eco tiles

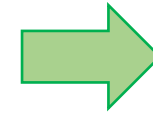


**Mono-layer  
ECO TILES**

**Double-layer  
ECO TILES**



▪ CO<sub>2</sub>eq. saved



better than  
traditional  
terrazzo



# market acceptance



International exposition CERSAIE 2017



architecture magazine

## LE TERRAZZO

*A striking composite*

Le Terrazzo en terre cuite. Ne s'ajoute plus terrazzo.  
À partir de 40 x 40 cm. Eau d'ivoire. RANDINETTI chez David B.

LES REVÊTEMENTS — FLOOR AND WALL COVERINGS



## Les revêtements

Terrazzo, parquet, terre cuite,  
mosaïque, cuir, pierre...  
autant de belles façons d'enrichir  
sols et murs.

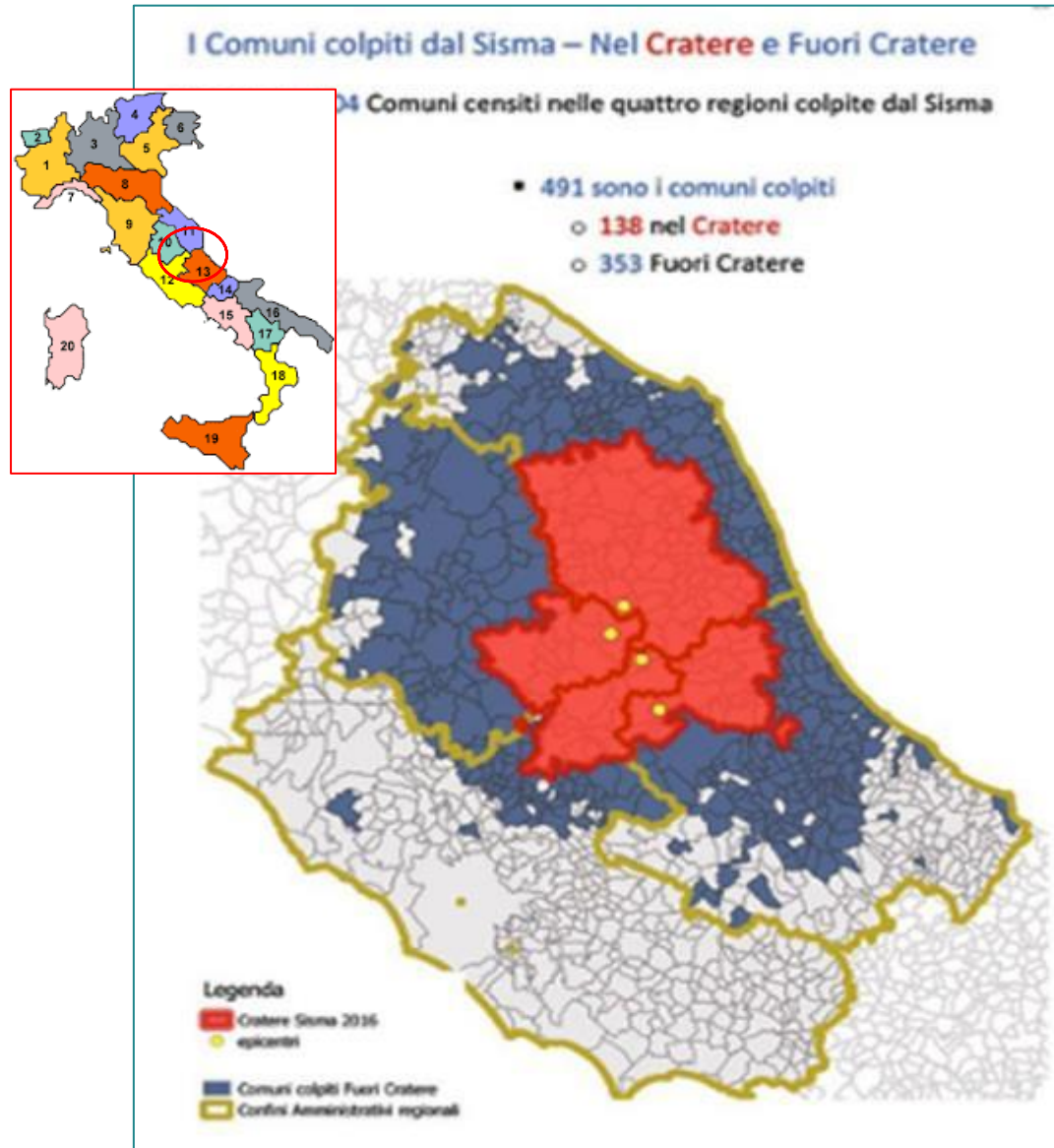
Wall and floor  
coverings

Bold and colorful statement makers  
come in an array of materials,  
from parquet and terrazzo to terracotta,  
mosaics, stone and leather.





# 2016 earthquake in Central Italy



- 491 municipalities in 4 regions
- 138 in the RED zone
- 4 major seismic events



**LARGEST  
CONSTRUCTION SITE IN EU  
for the next 30 years**



## Main issues:

- Rubble management
- CDW recycling
- Earthquake-safe constructions
- New green materials needed



# 2016 earthquake in Central Italy





# new life to rubble

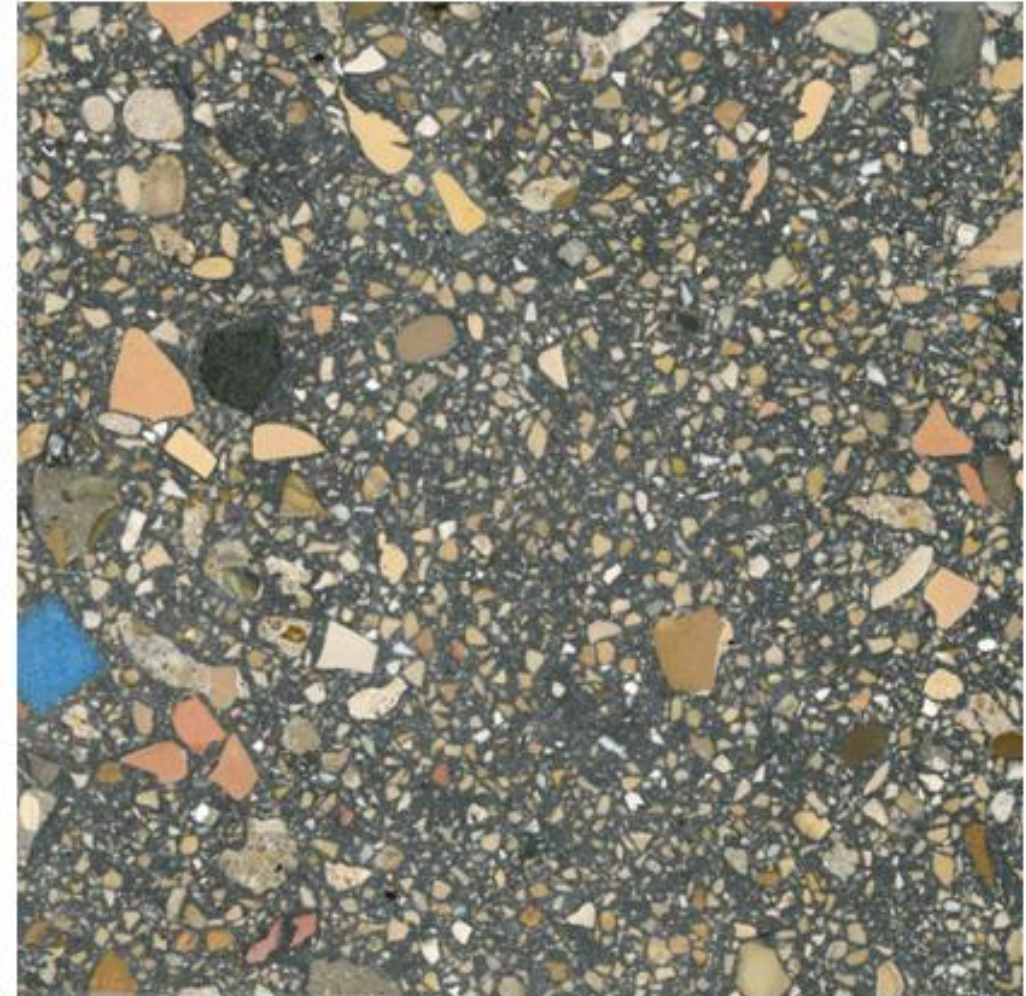
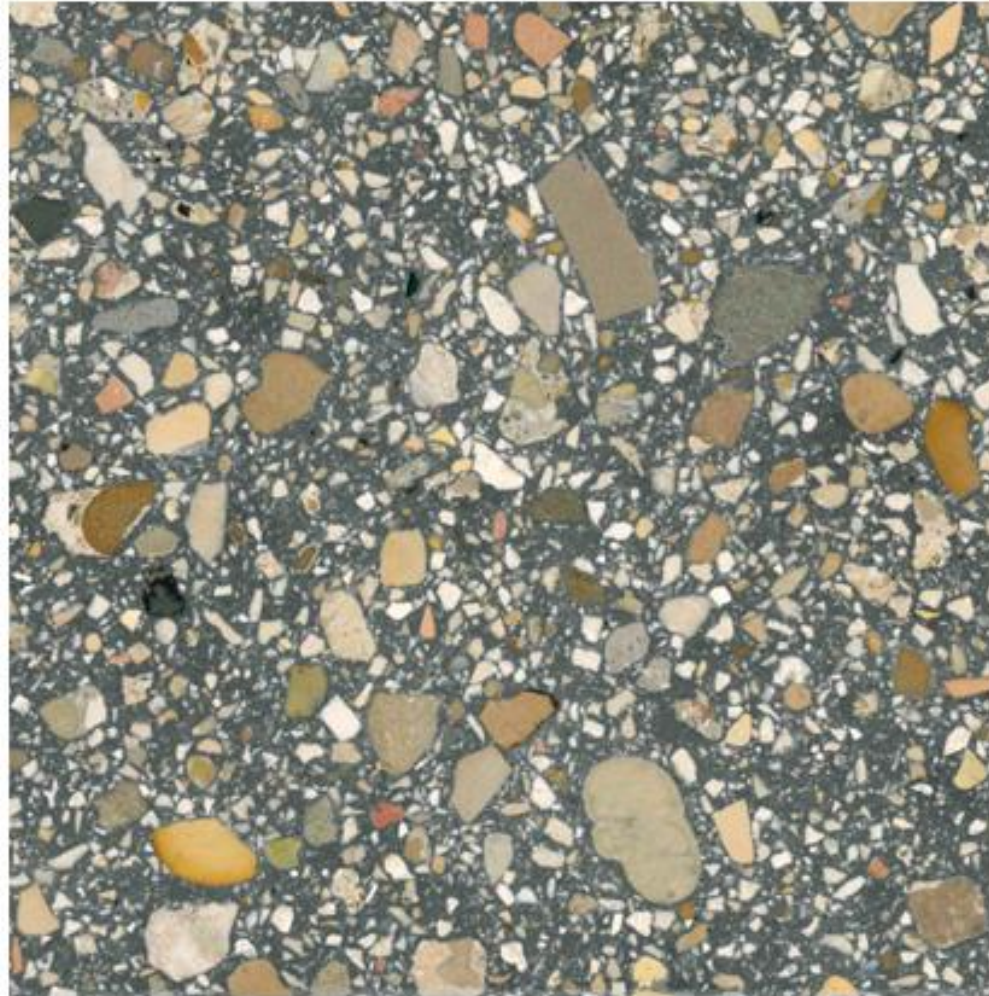




# new Life to rubble

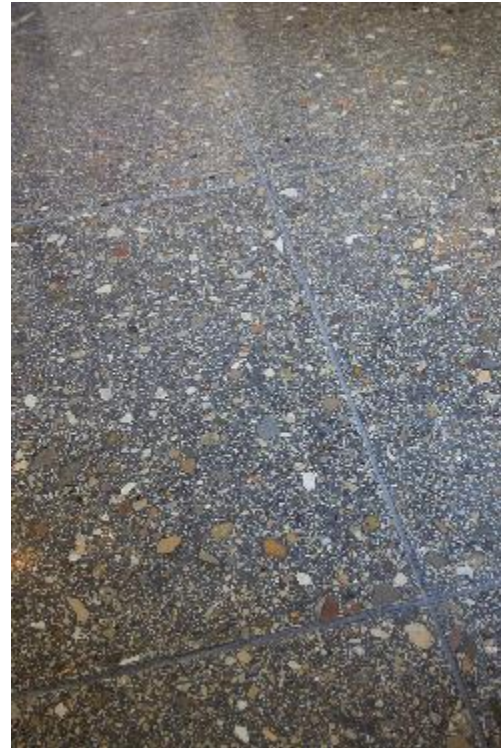
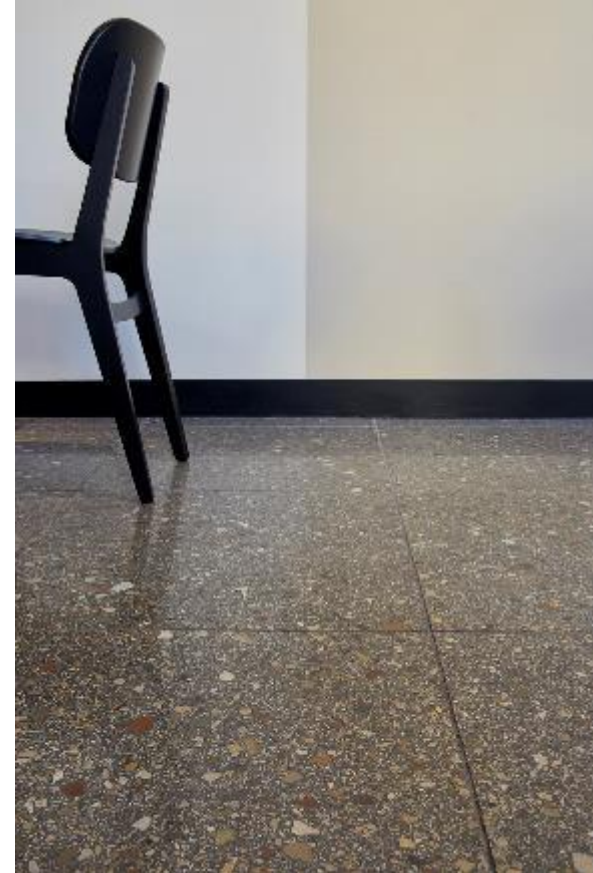


Construction and Demolition Waste (50 to 77%) + Portland cement + pigment





# applications





# new Life to rubble







contact me at  
eleonora.paris@unicam.it

Info about ECOTILES project  
<https://www.ecotiles-lifeproject.eu/>

## LIFE ECO Tiles – KEY MESSAGE

**There is a piece of my  
house in that tile.....**

