Description

In the town of Vila Viçosa, Portugal, where everything from castles to industries are made out of marble, our pavilion is the first non-reinforced marble structure for over a century, and the first to be exclusively built from marble waste and with this type of structural system. The material was supplied by the Salimbene Marble Factory, one of the oldest in Europe, which has been processing marble since the 17th century. The pavilion has been designed and built by students from the University of Oxford and the Harvard University, under the guidance of the architect and professor, Victoria Schlesinger.

The pavilion is located in Etma, a Portuguese marble factory, and is part of a series of projects that aim to explore the potential of using marble waste as a primary building material. The project was the result of a collaboration between the university and the factory, which has been producing marble for over a century. The pavilion is fabricated and installed in Etma, a Portuguese marble factory, with Marble from Solubema. The pavilion's intended use post-construction is as an educational tool for teaching and praxis. (Patti Lather 1986 Research as Praxis)

The project engaged the factory workers at all stages and was a primary building material. Working with local expertise, a geologist and also the managing director with a great innovative attitude. He has initiated several software and machine innovations, which they are testing and refining in the factory. (Francisco) Evidence of their knowledge of the material and their ambition was harder to achieve. Building accuracy and time (four trips) were handling weight and structural integrity. The 10x10x1cm marble waste, machinery and design typology. Other factors that suffice (less material). We designed the tile to fit a variety of tile work of work of Block Research Group ETH (and others) (V.C. Bode, J. Hagos, 1999). This project was an experiment. We had no previous experience in building this scale. The factory experience and our own 1:1 testing. The project was achieved through a design process of cutting the stones and physicalize work. Communicating with a mixture of languages, art, pavilions, a paper model, we exchanged many ideas and bound many stories about marble throughout the process. The project was the talk of the town and in all of these exchanges of global education value to us.

Evaluation

The 2-3cm thick non re-enforced laminated structure is weathering well. The 10,000 tiles involving 4 different people. We discovered the solid structure seem lighter and accentuate its appearance of being paper thin.

Cultural Geometries has been working in the historic marble region of Alentejo since 2011. We have been testing and refining our methods of using marble as a primary building material. With local expertise alongside the factories growing fabrication capacities and ambitions, the project is the first architecture building prototype with a great innovative attitude. We have initiated several software and machine innovations, which they are testing and refining in the factory. (Francisco) Evidence of their knowledge of the material and their ambition was harder to achieve. Building accuracy and time (four trips) were handling weight and structural integrity. The 10x10x1cm marble waste, machinery and design typology. Other factors that suffice (less material). We designed the tile to fit a variety of tile work of work of Block Research Group ETH (and others) (V.C. Bode, J. Hagos, 1999). This project was an experiment. We had no previous experience in building this scale. The factory experience and our own 1:1 testing. The project was achieved through a design process of cutting the stones and physicalize work. Communicating with a mixture of languages, art, pavilions, a paper model, we exchanged many ideas and bound many stories about marble throughout the process. The project was the talk of the town and in all of these exchanges of global education value to us.

The project was completed successfully and is weathering well. The 10,000 tiles involved in the structural elements is first for masonry construction. The building method could well be implemented in various other construction and architecture designs. The feasibility of using marble waste has been proven and was far more efficient than we had anticipated. The first ambition was harder to achieve. Building accuracy and time (four trips) were handling weight and structural integrity. The 10x10x1cm marble waste, machinery and design typology. Other factors that suffice (less material). We designed the tile to fit a variety of tile work of work of Block Research Group ETH (and others) (V.C. Bode, J. Hagos, 1999). This project was an experiment. We had no previous experience in building this scale. The factory experience and our own 1:1 testing. The project was achieved through a design process of cutting the stones and physicalize work. Communicating with a mixture of languages, art, pavilions, a paper model, we exchanged many ideas and bound many stories about marble throughout the process. The project was the talk of the town and in all of these exchanges of global education value to us.

The pavilion was completed successfully and is weathering well. The 10,000 tiles involved in the structural elements is first for masonry construction. The building method could well be implemented in various other construction and architecture designs. The feasibility of using marble waste has been proven and was far more efficient than we had anticipated. The first ambition was harder to achieve. Building accuracy and time (four trips) were handling weight and structural integrity. The 10x10x1cm marble waste, machinery and design typology. Other factors that suffice (less material). We designed the tile to fit a variety of tile work of work of Block Research Group ETH (and others) (V.C. Bode, J. Hagos, 1999). This project was an experiment. We had no previous experience in building this scale. The factory experience and our own 1:1 testing. The project was achieved through a design process of cutting the stones and physicalize work. Communicating with a mixture of languages, art, pavilions, a paper model, we exchanged many ideas and bound many stories about marble throughout the process. The project was the talk of the town and in all of these exchanges of global education value to us.

Marble Pavilion

For Education And Research

Project

Location: Etma, Vila Viçosa, Portugal
Date: Completed June 2016
Participating Organizations: March, Studio Tent, CG Architecture, OBU, SoAD, Freehaus Design, CG Architecture, Participating Disciplines: Architecture, Geology
Project Leaders: M. Brown, C. Godiksen, J. Hagos, M. Howe, T.Yudin
Teams: see film credits & www.cg-architecture.com/research

Methodology:

"Architecture Connects" association of architectural educators conference, 6-8 September 2017, Oxford Brookes University, UK

Creativity: stimulate

Participating Disciplines:

Participating Organisations:

Location:

Project Leaders:

Participating Disciplines:

Participating Organisations:

Location:

Project Leaders:

Participating Disciplines:

Participating Organisations:

Location:

Project Leaders:

Participating Disciplines:

Participating Organisations:

Location:

Project Leaders:

Participating Disciplines:

Participating Organisations:

Location:

Project Leaders:

Participating Disciplines:

Participating Organisations:

Location: