

# RESISTANCE

**ÁLVARO SIZA**

**AMANDA LEVETE**

**BIJOY JAIN**

**ELEMENTAL**

**MIA HÄGG**

Curator *Guta Moura Guedes*

# FIRST STONE

First Stone (Primeira Pedra) is an international experimental research program exploring the potential of Portuguese Stone, focussing on its uses, material properties and distinctive characteristics. The program draws together industry and design through the development of new uses for this material, raising awareness about its specificities and the industry it encapsulates.

At the core of this program are various architects and product or graphic designers, as well as other international protagonists within the field of cultural creation. They have been invited to develop work that emphasizes this material in both its raw and processed form, as well as the places from where it has been extracted: the stone quarries, their socio-cultural surroundings and their role in the landscape and the environment.

Spanning 18 months, this program is at the base of an international communication campaign that will highlight the specificities of Portuguese Stone, its industry and the various projects created. Primeira Pedra has 3 main projects—RESISTANCE, STILL MOTION and COMMON SENSE— which will be internationally presented in Venice, London, Milan, New York, Basel and Dubai. The program will also be complemented by a comprehensive website about the theme, a documentary about the fruition of the project and the creation of two Apps for mobile digital platforms. This series of projects is curated and produced by experimentadesign.

## RESISTANCE Venice 2016 Basel 2017

Presented in Venice, the first phase of Resistance is the kick-off of the project and brings together the contributions of 5 international architects—Amanda Levete, Álvaro Siza, Bijoy Jain, ELEMENTAL and Mia Hägg—along with a digital light installation conceived especially for this presentation. Here at the Villa Hériot we display the conceptual designs for the projects devised by each invited architect, with three of them already produced and exhibited in the gardens.

The second phase of the project continues to explore the resistance and performance of Portuguese stone and involves the consolidation of ideas, where original concepts will be completely developed by the 5 architects invited for the first phase. Another group of architects and new projects will be added during this second phase, as well as the use of other types of Portuguese stone with similar degrees of technical resistance, increasing the possibilities of approach. They will take on new research, designing and producing new projects that will enrich the reflexion on new uses for this material.

This second presentation will also include a digital video light installation and will take place during Art Basel 2017.

## RESISTANCE

Stone belongs to the matrix of materials that have followed Humanity's development since the dawn of time. Ranging from the smallest of objects to intricate and extraordinary architectural structures, stone has accompanied the ways in which we have appropriated and redefined the world.

There are stones that can be moulded with bare hands, with fingers even. Others require complex technologies to be manipulated. All of them were formed millions of years ago, and are themselves an example of resistance.

Five international architects were invited to explore the potential of Portuguese marble and limestone under a specific briefing, challenging them to work on the idea of resistance.

One of the main properties of the stones selected for this undertaking is their specific high level of mechanical resistance, which represents one of the starting points and differentiating factors of the project. On the other hand, there is also the idea that expanding architecture's territories of action through creativity, and adopting new perspectives from different fields, can be a way of resisting the banality and decrease in quality that has become evident in so many fronts of contemporary architecture.

Both central dimensions of this on-going project call for a strong emphasis on creativity and the ability to innovate and create different proposals. Either because the projects bring a new added value to society, or because they explore the material in an innovative way.

Guta Moura Guedes, curator

Participants  
**AMANDA LEVETE (GB)**  
**ÁLVARO SIZA (PT)**  
**BIJOY JAIN (IN)**  
**ELEMENTAL (CL)**  
**MIA HÄGG (SE)**

Digital Light Installation by  
**ALTA**

## PORTUGUESE STONE

The diversity of stone that can be found across Portugal is astonishing. Its natural qualities of beauty, coloration, durability and easy conservation make Portuguese Stone an efficient raw material, adding to the intrinsic value it embodies as a fascinating documentation of millions of years of geological evolution.

The most common stones in Portugal are Marble, Limestone, Granite, Breccia and Schist. The excellence of Portuguese ornamental stones, along with the advances achieved in their extraction and transformation, have served to continuously increase the value of Portuguese Stone in the international markets.

The art of working stone has traced through various ages throughout history and is still an extremely important industry in the socio-economic and cultural fabric of Portugal. And now in the 21st Century, when issues pertaining to environmental and social sustainability have become paramount, this industry in Portugal presents an extremely interesting particularity: while extraction and transformation techniques are exceptionally competitive and of the highest quality, the more artisanal and manual techniques that are unique and irreplaceable have not been lost.

For more information about the projects, including images, drawings and photos please visit:

**WWW.PRIMEIRAPEDRA.COM**

## ÁLVARO SIZA (PT)

Born in Matosinhos in 1933, Álvaro Siza graduated in architecture from the University of Oporto in 1955. His first project was built in 1954, and since then he has worked without interruption for six decades. His career has been internationally recognized with several prizes, including the Mies van der Rohe European Architecture Award in 1988, the prestigious Pritzker Prize in 1992, the Royal Gold Medal from the Royal Institute of British Architects (2009), the Golden Lion for Lifetime Achievement of the 13th International Architecture Exhibition of the Venice Biennale (2012), as well as several honoris causa doctorates from leading universities in Spain, Switzerland, Italy, Portugal and Brazil, among others. Álvaro Siza has also been committed to teaching, working as a Professor at the Oporto School of Architecture since 1976, and as visiting Professor at several schools, including Lausanne's EPF, the University of Pennsylvania, Los Andes University of Bogotá and the Graduate School of Design at Harvard University.

## Banco de jardim

Álvaro Siza  
1990  
Dimensions:  
770 x 590 x 565 mm  
780 x 335 x 565 mm

### Type of stone

**Marble Branco Estremoz**  
Compression breaking load: (kg/cm<sup>2</sup>) 970  
Bending strength: (kg/cm<sup>2</sup>) 243  
Impact test: minimum fall height (cm) 50



Álvaro Siza

## AMANDA LEVETE (GB)

Amanda Levete (b.1955, Bridgend) trained at the Architectural Association and worked for Richard Rogers before joining Future Systems as a partner in 1989. She is a RIBA Stirling Prize winner and founder of the architecture and design studio AL\_A. Since its formation in 2009, AL\_A has refined an intuitive and strategic approach to design that has led to a diverse range of concepts for cultural, retail and commercial schemes around the world. Recent commissions include the remodelling of Galeries Lafayette Haussmann in Paris; a cultural centre in Lisbon, commissioned by the energy company EDP; and the highly anticipated expansion of the Victoria & Albert Museum in London.

www.ala.uk.com

## Metamórfica

Amanda Levete  
AL\_A  
2016  
Dimensions: 1800 x 850 x 850 mm  
Team: Amanda Levete, Ho-Yin Ng, Maximiliano Arrocet, Alice Dietsch, Jocelyn Arnold

### Type of stone

**Marble Pele de Tigre**  
Compression breaking load: (kg/cm<sup>2</sup>) 1018  
Bending strength: (kg/cm<sup>2</sup>) 312  
Impact test: minimum fall height (cm) 60



Amanda Levete © Mari Holgado

## BIJOY JAIN (IN)

Born in Mumbai, India in 1965, Bijoy Jain received his M. Arch from Washington University in St Louis, USA in 1990. Between 1989 and 1995 he worked in Los Angeles and London and returned to India in 1995 to found his practice, Studio Mumbai. They work with a human infrastructure of skilled artisans, technicians and craftsmen who design and build the work directly. This group shares an environment created from an iterative process, where ideas are explored through the production of large-scale mock-ups, models, material studies, sketches and drawings. Projects are developed through careful consideration of place and practice that draws from traditional skills, local building techniques, materials and an ingenuity arising from limited resources.

www.studiomumbai.com

## Lore

Bijoy Jain  
Studio Mumbai  
2016  
Project presented in a conceptual phase



Bijoy Jain

## ELEMENTAL (CL)

ELEMENTAL is a *Do Tank* founded in 2001, focusing on projects of public interest and social impact, including housing, public space, infrastructure, and transportation. It integrates Alejandro Aravena, Gonzalo Arteaga, Juan Cerda, Victor Oddó and Diego Torres. A hallmark of the firm is the participatory design process in which the architects work closely with the public and final users. Alejandro Aravena (b.1967, Chile) has been the Executive Director of ELEMENTAL since 2001. He has been the most recent laureate of the Pritzker Architecture Prize, in 2016, and is currently the Director of La Biennale di Venezia 15th International Architecture Exhibition, with the theme Reporting From the Front (2016).

www.elementalchile.cl

## A thing not an object

ELEMENTAL  
2016  
Project presented in a conceptual phase  
Team: Alejandro Aravena, Gonzalo Arteaga, Juan Cerda, Victor Oddó, Diego Torres.



Elemental © Sergio Lopez

## MIA HÄGG (SE)

Architect and founder of the studio Habiter Autrement. During her early career she worked at Ateliers Jean Nouvel and Herzog & de Meuron. In this last one, she was Project Manager for the National Stadium of the 2008 Olympics in Beijing. In the Architecture Venice Biennale 2008, she and Jean Nouvel were invited to show their urban project for Slussen in Stockholm. In the context of Habiter Autrement, she built three award-winning public housing projects as well as a 100 metre long office building in Bordeaux. In Paris, the office recently completed 42 rental-housing units at the Entrepôt MacDonald. Among other projects, the office is currently working on the extension of a former school of architecture in Stockholm, a significant brutalist landmark.

www.habiterautrement.net

## X

Mia Hägg  
Habiter Autrement  
2016  
Dimensions: 467 (600 flat) X 300 mm  
Team: Mia Hägg, Kim Bjarke, Enrico Demattè  
Collage and renderings: Elisabet Sundin, Mari Proll Lien  
Graphic Design: Hans Stofregen  
Photographer: Maris Mezulis  
Text edit: Sara Goldsmith

### Type of stone

**Marble Pele de Tigre**  
Compression breaking load: (kg/cm<sup>2</sup>) 1018  
Bending strength: (kg/cm<sup>2</sup>) 312  
Impact test: minimum fall height (cm) 60

**Marble Azul Lagoa**  
Compression breaking load: (kg/cm<sup>2</sup>) 863  
Bending strength: (kg/cm<sup>2</sup>) 256  
Impact test: minimum fall height (cm) 55

**Marble Rosa com Veios Verdes**  
Compression breaking load: (kg/cm<sup>2</sup>) 702  
Bending strength: (kg/cm<sup>2</sup>) 182  
Impact test: minimum fall height (cm) 60-65

**Marble Ruivina**  
Compression breaking load: (kg/cm<sup>2</sup>) 930  
Bending strength: (kg/cm<sup>2</sup>) 270  
Impact test: minimum fall height (cm) 45-50

**Limestone Alpinina**  
Compression breaking load: (kg/cm<sup>2</sup>) 1150  
Bending strength: (kg/cm<sup>2</sup>) 183  
Impact test: minimum fall height (cm) 45

**Limestone Lioz Abancado**  
Compression breaking load: (kg/cm<sup>2</sup>) 1068  
Bending strength: (kg/cm<sup>2</sup>) 191  
Impact test: minimum fall height (cm) 45



Mia Hägg © Mari Holgado



(experimentadesign)

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