

# SHIFTING GROUND



la Biennale di Venezia

13. Mostra  
Internazionale  
di Architettura

Partecipazioni nazionali

## NATIONAL TOUR PAVILION OF IRELAND

13th International Architecture Exhibition  
- la Biennale di Venezia

## SHIFTING GROUND Beyond National Architecture

### PRESS MATERIAL

Irish Representation 2012  
Commissioner ELIZABETH FRANCIS  
Curator JOHN MCLAUGHLIN  
Participants HENEGHAN PENG ARCHITECTS

### IRELAND 2013

Dublin, 10 May – 2 June 2013  
Galway, 15 – 28 July 2013  
Cork, 20 – 28 September 2013

The Irish tour of Ireland's representation at the Venice Architecture Biennale 2012 is supported by the Arts Council as part of its commitment to bring architecture exhibitions to Irish audiences

Ireland at Venice is an initiative of **Culture Ireland** in partnership with **The Arts Council of Ireland** Supported by the **Department of Arts, Heritage and the Gaeltacht** and the **RIAI**, Royal Institute of the Architects of Ireland with Arup and Durlum.



Culture Ireland  
Cultúr Éireann



An Roinn  
Ealaíon, Oidhreachta agus Gaeltachta  
Department of  
Arts, Heritage and the Gaeltacht



# SHIFTING GROUND

## PAVILION OF IRELAND

13th International Architecture Exhibition –  
La Biennale di Venezia

### NATIONAL TOUR OF THE PAVILION OF IRELAND



Photo © Marie-Louise Halpenny

### WHERE AND WHEN

#### DUBLIN

DATES: Saturday **MAY 11th<sup>TH</sup>** to Sunday **June 2<sup>nd</sup>** 2013.

Exhibition opening Friday May 10th 2013

VENUE: **The CHQ Building**, IFSC, Dublin Docklands, Dublin 1.

EVENT: **EFAP** European Forum on Architectural Policy Conference.

#### GALWAY

DATES: Monday **JULY 15<sup>th</sup>** to Sunday **July 28<sup>th</sup>** 2013.

Exhibition opening Sunday July 14<sup>th</sup> 2013

VENUE: **ABSOLUT FRINGE GALLERY**, Headford Road, Galway

EVENT: **Galway Arts Festival 2013**

#### CORK

DATES: Saturday **SEPTEMBER 21<sup>st</sup>** to Saturday **SEPTEMBER 28<sup>th</sup>** 2013.

Exhibition opening Friday September 20<sup>th</sup> 2013

VENUE: **THE NATIONAL SCULPTURE FACTORY**, Albert Road, Cork City

EVENT: **Culture Night 2013**

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**SHIFTING GROUND (Beyond National Architecture)**



Photo © Marie-Louise Halpenny

## **CURATOR'S STATEMENT** – John McLaughlin

Ireland is one of the most globalised countries in the world, and this exhibit looks at architecture's relation to networked flows of products, data, and knowledge. It asks how could a global architecture be grounded culturally, philosophically and spatially? How can it situate itself outside of shared national reference points?

heneghan peng architects were selected as participants because they work across different continents on a range of diverse projects. Our dialogue led us to discussing the universal languages of projective geometry and number shared by architects and related professionals. In their work the specific embodiment of these geometries is carefully calibrated by the choice of materials and their detailed design. The stone facade of the Giant's Causeway Visitor Centre in Antrim takes precise measure of the properties of the volcanic basalt seams from which it is hewn. The extraction of the stone is the subject of wall drawings which record the cutting of basalt to create the façade of the Causeway Centre.

We also identified water as the element which is shared across the different sites. Venice is a perfect place to take measure of this element which suggests links to another site – the Nile Valley. An ancient Egyptian rod for measuring the water level of the Nile inspired the design of a responsive oscillating bench which invites visitors to balance their respective weights. The bench constitutes a shifting ground located in the unstable field of Venice. It is about measurement and calibration of the weight of the body in relation to other bodies; in relation to the site of the installation; and in relation to water. It is located in the Artiglierie section of the Arsenale. Its level is calibrated against the mark of the *acqua alta* in the adjacent brickwork of the building which marks a horizontal datum in a floating world.

**PARTICIPANTS' STATEMENT** – heneghan peng architects

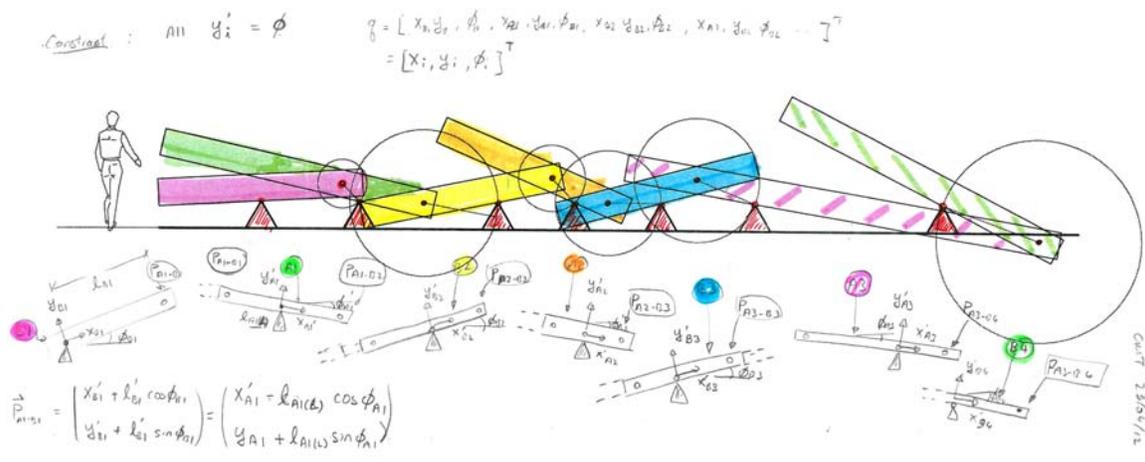
The Pavilion of Ireland is located at the end of the Artiglierie in the Arsenale; it is composed of a series of wall drawings and a bench for resting. The two opposing walls transcribe the cutting matrix for the individual stones which form 2 folds in the landscape of the Giant's Causeway Visitor's Centre; the fold of the building and the fold of the car park. A long 12 meter bench, constructed of 6 interlinked sections, 6 rotation-only fulcrums & 5 translation pivots, provides a place to sit at the end of the Artiglierie. The bench, when at rest in balanced equilibrium is horizontal.

The soldier course, at 805mm above slab level, on the Artiglierie brick walls **measures** waterline and sets the **height** of the bench. This simple machine is brought out of stable equilibrium by sitting, changing the body's relation to the set 805mm geometric horizon. 12 interlinked lever arms rotate; responding to a precise mechanical relationship set up between variable constraints, **mass** & position and fixed constraints, 11 pivot axes. A second person sitting sets in motion a second series of interconnected movements and so on with every subsequent visitor. Motion can be varied by sliding the body horizontally. This translation of **mass** along the bench **length** varies the lever arm and the resultant applied moment. Force applied at any of the 6 fulcrums (which are marked) does not vary motion; the bench remains static. The bench returns to stable equilibrium when no acting bodies are present.

The 2 opposing scripted walls are the geometric instruction set for stone fabrication both fixed & variable; that define the final cutting & set-out **dimensions** for the 186 basalt columns at the Giant's Causeway Visitor's Centre on the North Antrim Irish Coastline. The original architectural instruction set was designed to be adaptive to the unpredictable nature of the basalt extraction process. This final matrix transcribes information for each cutting template, position index, wastage/re-use ratio and maximum yield size per stone block based on inherent and induced fractures, during the 12 blast-extractions that occurred at local quarries in the 18-month construction programme.

**ARUP** - Engineering

An action applied by a visitor produces motion, described through physics by mathematics. As motion spreads to the interconnected body parts, a dynamic interaction between the action and bodies keeps changing the visible movements and invisible strains and stresses. The action and response invites the visitor to change from an inert observer to a dynamic participant. Collaboration between the architects, hpa, and engineers, Arup, refined the idea of dynamic system response. Arup used simulation as an experimental laboratory of concepts, and an idea was made real in the digital sense. Arup carried out a static and dynamic structural study, in coordination with hpa, that involved optimizing the bench beam lengths, dimensions, materials, interconnection positions and support locations. The result was a beautiful, functional and safe piece of moving art.



Bench Kinematic Structural modelling by ARUP

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### BIOGRAPHY OF THE COMMISSIONER, THE CURATOR AND THE PARTICIPANTS

Commissioner: ELIZABETH FRANCIS

**Elizabeth Francis** was born in Co. Donegal, Ireland. She studied architecture at University College Dublin and graduated with honours in 1993. Based in Bologna in Italy, she has studied and worked in Italy, France, Ireland and the UK.

In 2010 she founded **atelier Francis** to pursue her interests in architecture, art and research. **atelier Francis** cultivates cultural links internationally, curating architectural events and exhibitions. Prior to this from 1994 she was partner in Mario Cucinella Architects (MCA) in Paris and Bologna. MCA is award-winning practice at the forefront of contemporary design whose work has been internationally recognised for its architectural, environmental and technological quality. She developed research and design in the field of renewable energies participating in European Commission funded interdisciplinary projects. She brought this work to an international audience with exhibitions, publications and seminars in Europe, Asia and the USA.



Curator: JOHN MCLAUGHLIN

**John McLaughlin** is a practicing architect who also lectures in architecture in UCC and UCD. His work covers a range of projects integrating architecture with urbanism, landscape and art. He is interested in developing an expanded field for architecture through interdisciplinary work and has collaborated in this with other architects, engineers, landscape designers and visual artists. Before founding his design practice in 2010, John was director of architecture with Dublin Docklands Authority where he directed many groundbreaking projects including the Grand Canal Square development.

He is a graduate of UCD. After college he worked in Paris and London for over a decade on major cultural and civic projects before returning to settle in Ireland in 2003. He has served on many design juries including European 10 and the RIAI Silver Medal 2011. He was a member of the advisory panel on the Government Policy on Architecture 2009-2015.



Participants: HENEGHAN PENG ARCHITECTS



**heneghan peng architects** is a design partnership practising architecture, landscape and urban design. The practice was founded by Shih-Fu Peng and Róisín Heneghan in New York in 1999 and in 2001 was relocated to Dublin.

We take a multi-disciplinary approach to design and have collaborated with many leading designers and engineers on a range of projects which include larger scale urban masterplans, bridges, landscapes and buildings.

Current projects include the Grand Egyptian Museum, at the Pyramids, the Giant's Causeway Visitors' Centre, Central Park Bridges

at the 2012 London Olympic Park, a Library and School of Architecture at the University of Greenwich in Greenwich, London and the Palestinian Museum.

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