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MANCHESTER
INTERNATIONAL
FESTIVAL

Björk
Biophilia

30 June - 16 July 2011
Campfield Market Hall, MOSI



Björk

It is our great pleasure to welcome Björk to Manchester for the launch and first performances of her hugely anticipated project **Biophilia**.

Björk is a force of nature and one of a handful of true pioneers working in music today. In **Biophilia**, she has created a unique synthesis of music, nature and science that has been more than three years in the making.

Set in the Museum of Science and Industry's atmospheric Victorian Campfield Market, Björk is in residence throughout the Manchester International Festival, before taking **Biophilia** out to cities around the world.

Alex Poots, Festival Director

With special thanks to Tony Hill and the MOSI team.

Biophilia

World Premiere, 30 June 2011, Campfield Market Hall, MOSI

Björk	Concept, Production and Creative Lead
Matt Robertson	Electronics, Midi Instruments and Musical Director
Manu Delago	Hang and Percussion
Jón Stefánsson	Choir Conductor
Video Content & Production	Snibbe Interactive

Choir

Arnheiður Eiríksdóttir	Erla Rún Guðmundsdóttir	Kristín Einarsdóttir Mäntylä
Auður Albertsdóttir	Ester Auðunsdóttir	Kristín Sveinsdóttir
Ásdís Björg Gestsdóttir	Eygló Höskuldsdóttir Viborg	Sigrún Ósk Jóhannesdóttir
Ásdís Eva Ólafsdóttir	Fífa Jónsdóttir	Sigurborg
Ásta Ægisdóttir	Gígja Gylfadóttir	Skúladóttir Kaldal
Bergljót Rafnar Karlsdóttir	Gígja Haraldsdóttir	Unnur Sigurðardóttir
Drífa Örvarsdóttir	Guðrún M Sigurbergisdóttir	Vigdís Sigurðardóttir
Elín Edda Sigurðardóttir	Jóna G Kolbrúnardóttir	
Erla María Markúsdóttir	Kristín Anna Guðmundsdóttir	

Commissioned by Manchester International Festival
Produced by Manchester International Festival and Björk

At the Artist's request please refrain from taking photographs or recording images. This is distracting to Björk and she would encourage you to please enjoy being part of the performance and not pre occupied with recording it. Images from Biophilia will be available on the Björk and Manchester International Festival websites, bjork.com and mif.co.uk. Your cooperation is greatly appreciated.

The reason why Biophilia is on such a grand scale is that I can't even attempt to explain sound and the world of rhythm and scales without taking in the solar system and atoms. For me that's sort of the same world. Björk

Biophilia celebrates natural phenomena from the atomic to the cosmic, and presents musical sound as part of this whole. The project comprises two versions of the same album, specially commissioned apps, newly invented musical instruments, internet presence, documentary, educational workshops and live show.

Björk describes **Biophilia** as a 21st century "music of the spheres". This ancient philosophical notion conceived the relationships between the movements of sun, moon and planets as a kind of music – not a music you can hear, but a mathematical idea based on the ratios of musical frequencies and planetary orbits. This holistic idea resonates with modern recognition of equilibrium in the natural world. **Biophilia's** celebration of scientific discovery and new technologies takes us "forward to nature" – the idea that by combining nature with new technology we can create a more sustainable future.

Given its subject matter **Biophilia** might seem the least autobiographical of Björk's projects. However, it reflects her complicated relationship with her Icelandic music school education and realises an idea formed in reaction to it – the notion of a school in which music is understood in its broadest sense, not as an imperialist canon of European art music

composers, but as organised sound, whether by Beethoven, Kraftwerk or Konono No.1, and of musicology not as abstract theory but as something that can be understood physically and intuitively.

Biophilia has an explicitly educational aim which Björk realises through its multimedia format and music-science educational workshops for children which take place during her residencies. **Biophilia** will be the first album to be released as a suite of apps. These song-apps combine a nature-science topic and musical feature: for example, "Cosmogony" is about the origins of the universe, and cosmic and musical equilibrium; "Crystalline" explores musical form by analogy with crystal structures; and "Moon" uses repeating musical sequences akin to lunar phases. These apps also combine traditional ways of transcribing music with new approaches, such as scrolling music notation and animations representing sound as visual patterns.

The live show involves specially commissioned instruments which are part of the educational experience because they make visible the physical forces that are the subject matter of **Biophilia**: the pendulum-harp embodies the idea of gravity; the pipe organ dramatises the force of air; and a bespoke 'gameleste' – a cross between the sounds of a gamelan and celeste - embodies the metals which run throughout **Biophilia**. Björk will also be performing with hang, a flying-saucer shaped metal object struck with the hands; a sharpsicord (a pin barrel harp)

which links older autonomous music players like the music box with modern ones such as the laptop; and a 24-piece female choir, the members of which grew up with, and learnt music within their Icelandic choir school. Björk's compositional style here deliberately avoids the metric structures common in pop: for example, the idea of double pendulums creating interlocking and irregular patterns inspired her basslines and she used a game controller to trigger prime number length sequences to get away from the regular alternation of strong and weak beats. Björk's wonder at the natural world and musical sound is communicated through **Biophilia**, a suite of original music and interactive, educational artworks and musical artefacts exploring music, nature and technology.

Dr Nicola Dibben
University of Sheffield



MIF Creative

Biophilia: Music School

Biophilia is Björk's most ambitious project to date, encompassing new music, technology, live shows and installations. The Biophilia School Programme offers students from Manchester Enterprise Academy and Newall Green High School in Wythenshawe an opportunity to be the first in the world to explore the ideas showcased in **Biophilia** and to offer up their own creative responses. Over the course of five days, students will explore new instruments and technologies, and will learn through participation and collaboration to develop practical skills in creativity and composing new work. Biophilia Music School is enabled by Official Sponsor Manchester Airport. Commissioned by MIF Creative.

Developed by **David Sheppard**
Project Assistants:
Matt Rogers/Matt Fairclough

Manchester International Festival

Alex Poots
Festival Director
& Executive Producer

David Lawrence
Technical Producer

Jack Thompson

Technical Director

Christine Gettins

Senior Producer

Jennifer Cleary

Head of Creative Learning

Lisa Maguire

Associate Producer

Thanks to David Levy, WME.

Production:

Dave Bracey

FOH Sound Engineer

Finnur Ragnarsson

Monitor Sound Engineer

Paul Normandale

Concert Lighting Design

Emma Westerberg

Lighting Operator

Paul Eastman

Midi Technician

Jez Webb

Backline Technician

Christine Ockenden

Projectionist

Andy Cavatorta

Pendulum Designer

Ryan Wistort

Pendulum Technician

Henry Dagg

Sharpsichord Maker

Andy Rhymes

Video Programmer

Lucy Ockenden

Video Programmer

John Ginley

Lighting Project Manger

Mick Stowe

Lighting Technician

Chris Cooper

Lighting Technician

Rob Priddle

Audio Technician

Don Parks

Audio Technician

Ben Vickets

Audio Technician

Richard Cook

Audio Technician

Simon Barrington

Production

Ben Johnstone

Production

Björk

Björk

Concept, Production
and Creative Lead

Derek Birkett

Production and Business
Developer

James Merry

Project Coordinator and
Research

Peter Van Der Velde

Production Manager,
Venue and Show Design

Shaun Martin

Tour Manager

James Harman

Legal Advisor

Snibbe Interactive

Scott Snibbe

Executive Producer
and Director

Sharon Hibbert

Project Manager

Noah Cunningham

Director of Photography
and Editor

Elia Vargas

Director of Photography
and Editor

Mark Woloschuk

Compositor and Technical Advisor

Patrick Wilson

Audiovisual Technical Advisor

Nathan Heigert

Storyboard Artist

Sharon Pieczenik

Production Assistant

Meara O'Reilly

Artistic and Technical Direction
for Chladni Plate Cymatics
www.mearaoreilly.com

Colin Sebastyen

Animator

Nature Footage Provided By:

BBC Motion Gallery,
with thanks to **Kush Varia**

Bolshoi Footage Provided By:

Prof. Anatoly Klypin

Principal Investigator

Prof. Joel R. Primack

Principal Investigator

Dr. Christopher E. Henze

Scientific Visualization

Nasa Advanced

Supercomputing, Nasa
Ames Research Center

Bolshoi Visualization

available at New-Universe.Org

Stephen Malinowski

Music Animation Machine
Abstract Animated Scores

ipad Application Footage

Crystalline

Björk

Creative Director

Luc Barthelet

Interactive Author and
Lead Developer

M/M Paris

Design and Creative Lead

Scott Snibbe

Creative Director,
Technical Director

Lisa Ching

Software Engineer

Sarah Flannery

Software Engineer

Mark Danks

Software Engineer

Touchpress

Producer

For Touchpress

Theo Gray

Creative Advisor

Max Whitby

Technical Advisor

Virus

Björk

Creative Director

Scott Snibbe

Software Engineer, Creative
Director, Technical Director

Graham McDermott

Software Engineer

Nathan Heigert

Artist, Designer and Animator

Drew Berry

Creative Advisor

Thunderbolt

Björk

Creative Director

Scott Snibbe

Software Engineer, Creative
Director, Technical Director

Graham Mcdermott

Software Engineer

Hollow

Touchpress

Producer

Drew Berry

Animator and Creative Director

For Touchpress:

John Cromie

Software Engineer

Max Whitby

Executive Producer

Solstice

Björk and James Merry

Creative Directors

Max Weisel

Software Engineer, Creative
Director, Technical Director

Harp samples included in
this app from **The Vienna**

Symphonic Library

Sacrifice

Stephen Malinowski

Music Animation Machine

Festival Team

Executive

Alex Poots General Director
Simon Mellor Associate Director
Christine Cort Jackie McNerney Administrative Director

Tracy Longdin PA to Festival and General Director
Gemma Saunders Assistant to Associate Director

Producing

Christine Gettings Senior Producer
Tracey Low Senior Producer
Kate Macknochie Producer
Polyanna Clayton-Stamm Producer*
Irena Kuszta Producer*
Dave Lawrence Producer*
Kerenza McLarnan Producer*
Gabby Vautier Producer*
Lindy Fretwell Festival Theatre Production Manager*
Jo Walsh Assistant Producer
Ella Byford Assistant Producer
Anna Moutrey Assistant Producer*

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Valasker MacSteel Finance Officer
Melissa White Finance Assistant
David Fox Administration Manager
Stephanie Clark Administration Assistant
Ashley Emmott Administration Assistant

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Jack Thompson Technical Director
Katie Vine Technical Co-ordinator*
Sarah Rowland Head of Artist Liaison*
Paul Bouchier Artist Liaison Ground Transport Manager*

Rachel Down Artist Liaison Assistant
Brigitte Brown Artist Liaison Assistant*

Creative Learning

Jennifer Cleary Head of Creative Learning
Devina Kumar Creative Learning Manager
Gemma Cannell Trainee Producer (MIF Creative)

Development

Helen Bowdler Development Director
Rachel Green Development Manager
Georgina Ralston Sponsorship Account Manager
Hannah Woolnough Sponsorship Account Manager

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Dolan Hewison Deputy Festival Square Co-ordinator
Clodagh Buckley Head of Protocol*
Mandy Martinez Festival City Co-ordinator*
Joanne Schofield Protocol Assistant

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Sandra Roemermann Marketing Manager
Alethea Wardle Marketing Officer
Billy Partridge Ticketing Manager
Ellen Costigan Ticketing Assistant

Daniel Cumberland Ticketing Assistant
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Lynda Kendall Designer*
Debra Leeson Designer*
Alessandra Mostyn Designer*
Gareth Taylor Film Editor*
Ruth Allan Programme Editor*

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Nadja Coyne Press and PR Director
Elisa Huff Press Officer
Davina Huntington Broadcast Co-ordinator

Volunteers

Caroline Birnie Volunteer Coordinator
Fiona Cariss Assistant Volunteer Coordinator
All our wonderful 400 volunteers without whom the Festival would not be possible

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*Consultant

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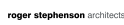
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