BIORHYTHM: MUSIC & THE BODY IS AN ENGAGING VISITOR EXPERIENCE CREATED BY SCIENCE GALLERY, DUBLIN. IT EXPLORES THE RELATIONSHIP BETWEEN MUSIC AND THE BODY THROUGH ART AND SCIENCE. FROM AN ACOUSTIC BED TO SONIC TABLES AND EXPERIMENTS ON YOUR EMOTIONAL RESPONSE TO POP MUSIC, BIORHYTHM ALLOWS VISITORS TO FEEL HOW MUSIC MOVES YOU THROUGH A RANGE OF PARTICIPATIVE VISITOR EXPERIENCES.
CONCEPTS & THEMES

Inspired by music and how it permeates every culture on the planet, Science Gallery set out to produce an exhibition, which explored our relationship with sound and music. What are the natural forces that drive us to sing, strum, drum and dance? What is the scientific basis of whistling, humming and toe-tapping? Our brains, ears and vocal chords are exquisitely designed for enjoying and creating music and the vision for BIORHYTHM was to explore how and why we do this.

SONIC FURNITURE
Everyday objects re-imagined as sound installations. Speakers, oscillators and transducers amplified through the body.

BODY MUSIC
An eclectic group of installations that provoke and engage the imagination, creating a level of visitor interaction throughout the exhibition space.

RESEARCH EXPERIMENT
‘Emotion In Motion’ is real science. A Lab-In-The-Gallery - an on-going sound experiment specially developed for the exhibition. All participant results feed directly back into the Sonic Arts Research Center project at Queen’s University, Belfast.

CREATING MUSIC
Engaging the visitor through highly interactive sound projects. Creating sound and music through art/technology interfaces.
DESIGN

The BIORHYTHM installations are set within a flexible design framework capable of adapting to any number of layout configurations. All structures are robust modular and can be installed and deinstalled quickly and easily, with a minimum of crew.

Twelve white ‘L’ shaped structures populate the space, creating a dramatic, non-linear setting within which each installation can be experienced. Holes cut into each of the structures creates a visual motif through the exhibition, opening unexpected sightlines and drawing light into each space. The structures also carry power and data cabling to each installation.

Tables and plinths provide the supporting structure for each installation, creating a uniform look and feel throughout the gallery space. Each incorporates a storage space for hardware and cabling.

COMMUNICATION MODEL

The content of BIORHYTHM is deliberately non-didactic, enabling a team of ‘mediators’ to deliver the main content in the gallery through direct visitor dialogue and interaction. Printed text throughout the exhibition is purposely limited to provide a short snapshot of each work. This mediator model is a unique component of Science Gallery exhibitions, creating a dynamic visitor environment with a genuine opportunity to surprise, inspire and challenge exhibition visitors. The model can be adapted to suit the specific requirements of the host venue’s own style of visitor interaction. A detailed mediator handbook is supplied and full mediator training is provided with the exhibition.

DEVELOPMENT

Conceived and produced by Science Gallery in early 2010, BIORHYTHM successfully targets audiences in the 15–25 age range while also catering for family and holiday visitors.

Developed through a unique national and international Open Call process, the content was selected from inviting existing and new projects for participation in the exhibition. Over 250 submissions were received from all over the world. A curatorial team consisting of musicians, neuroscientists and researchers selected fifteen of these submissions which best fit with the overall vision of BIORHYTHM and the key concepts we wished to explore.
MEDIA COVERAGE

First stop on it’s international tour was Eyebeam Art + Technology Center in Chelsea, New York as part of the 2011 World Science Festival in New York. BIORHYTHM was the first exhibition to be invited to take part in the World Science Festival and attracted large visitor numbers and significant media coverage including The New York Times, The Wall Street Journal, NY1 and Wired Magazine. BIORHYTHM is currently being exhibited at the Science Centre Singapore until August 15th 2012 and will be part of the Singapore Science Festival http://www.science.edu.sg

A MEDIA BOOK OUTLINING ALL MEDIA COVERAGE WILL ACCOMPANY THIS DOCUMENT.

WHAT’S BEEN SAID

"Whether you’re a dyed-in-the-wool dance floor diva who wiggles at the merest mention of Lady Gaga or a beret-wearing, chin-stroking jazz aficionado, you’ll find an insight into how we interact with all manner of music and sound at Biorhythm...”
Daragh Reddin, Metro Herald, 08.07.10

"One of the best things to happen to Dublin’s cultural landscape over the past five years was the opening of Trinity’s Science Gallery"
John Meagher, Irish Independent, 09.07.10

“If ever there were an interactive art/science show, Biorhythm: Music and the Body is it.”
Bob Grant, The Scientist, 03.06.11

“[Biorhythm] certainly challenged convention, granting a rare opportunity for art and science to collide in a supernova of imaginative energy.”
Nature Network Team, nature.com, 05.06.11

“An exhibition by Dublin’s Science Gallery has made its way to Asia for the first time after making its rounds in the Ireland capital and New York. Biorhythm is about how music and sound reacts with the body, and is both informative and entertaining.”
Jacqueline Seng, CNET Asia, 18.06.12

NUMBERS

• Over 78% of visitors aged between 16–34 years
• The experiment continues to create the world’s largest on-going database of visitors emotional reaction to different musical genres
• 71,600 visitors experienced BIORHYTHM in Dublin in 2010
• Over €1m in PR value achieved over 3 months of exhibition
EXHIBITS GALLERY
EXHIBITION CONTENT & TECHNICAL DATA

The content listed below is as it was presented in Dublin but it should be noted that due to the nature of the works and the artists’ individual schedules some pieces may not be available. Science Gallery will do all it can to secure the works as listed, or liaise with the host venue to generate suitable replacements if appropriate.

**BINAURAL HEAD**
A metal sculpted head
Tech: 4 x headphones
1 x headphone amp
2 x pre-amp
1 x powerpoint

**SONIC BED MARFA**
Sonic bed, made of wood and perspex
Tech: 1 x web cam
2 x power supply
1 x audio interface
1 x mac mini
6 x car amplifier
4 x powerpoint

**KLANGKAPSEL**
Immersive sound capsule
Tech: 1 x 8-channel amp
1 x audio interface
1 x computer
2 x powerpoint

**SOMETHING FOR THE GIRL WITH EVERYTHING**
Sonic Victorian chair
Tech: 1 x analogue oscillator
1 x power supply
1 x amplifier
1 x power point

**OPTOFONICA CAPSULE**
Audio-visual capsule
Tech: 1 x wifi or web link
9 x transducer
1 x computer
1 x audio interface
2 x powerpoint

**THE THEREMIN INSPECTORS**
Sound visualisation
Tech: 1 x projector
1 x theremin
1 x mac book pro
5 x powerpoint

**MUSIC, EMOTION & EMPATHY EXPERIMENT**
Interactive research experiment
Tech: 1 x web link
4 x computers [inc. screen, keyboard, mouse]
1 x network switch
10 x powerpoint

**REACTABLE**
Intuitive musical instrument
Tech: 1 x projector
1 x mac mini
1 x web cam
2 x active speaker
3 x powerpoint
<table>
<thead>
<tr>
<th>CONTACTS</th>
<th>INSTRUMEN</th>
<th>BODY SNATCHER</th>
<th>CHAINS OF EMOTION</th>
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<tbody>
<tr>
<td>Intimate connecting sound piece</td>
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<td>Tech: 3 x projector 4 x headphone 1 x headphone amp 1 x triple head to go 1 x computer 5 x powerpoints</td>
<td>Tech: 3 x projector 4 x active speaker 1 x giant button 1 x computer 1 x arduino 1 x audio interface 1 x sub woofer 1 x triple head to go 8 x powerpoint</td>
<td>Tech: 6 x A/V chains 1 x computer 6 x amp 6 x LED lighting set 4 x active speaker 1 x custom interface 1 x audio interface 8 x powerpoint</td>
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**CONTACTS**
- Intimate connecting sound piece
- Tech: 2 x active speakers
  - 1 x computer
  - 1 x powerpoint

**HEART ‘N’ BEAT**
- Steampunk musical instruments
- Tech: 4 x headphones
  - 4 x powerpoints

**HEAR, HEAR**
- A journey through human hearing
- Tech: 1 x preamp
  - 2 x powerpoint

**INSTRUMEN**
- Audio-visual cinema
- Tech: 3 x projector
  - 4 x headphone
  - 1 x headphone amp
  - 1 x triple head to go
  - 1 x computer
  - 5 x powerpoints

**BODY SNATCHER**
- Interactive music-making
- Tech: 3 x projector
  - 4 x active speaker
  - 1 x giant button
  - 1 x computer
  - 1 x arduino
  - 1 x audio interface
  - 1 x sub woofer
  - 1 x triple head to go
  - 8 x powerpoint

**CHAINS OF EMOTION**
- Immersive sound installation
- Tech: 6 x A/V chains
  - 1 x computer
  - 6 x amp
  - 6 x LED lighting set
  - 4 x active speaker
  - 1 x custom interface
  - 1 x audio interface
  - 8 x powerpoint
EXHIBITION SCOPE AND SIZE

BIORHYTHM has a modular, flexible exhibition footprint of between 400m² and 500m² and can be assembled to suit many gallery environments, compacting or expanding according to venue requirements. Final footprint will depend on DDA [Disability Discrimination Act] access and fire routes through the venue. Requires a ceiling height of at least 3.5m. Has a power draw of up c.50amps.

STRUCTURAL COMPONENTS

[specific subject to change]

- **12x** ‘L’ shaped space dividers – 240 x 360cm
  [Splits into 3x 240 x 120cm sections for transport]
- **7x** Installation tables with A/V storage – 200 x 100 x 75cm
  Tops and bases split for transport
- **1x** Lead wall – 240 x 800cm
  [Splits into 7x 240 x 115cm sections for transport]
- **1x** Side wall – 240 x 500cm
  [Splits into 4x 240x120cm sections for transport]
- **1x** Triptych two-way projection screen – 420 x 100cm
  [Splits into 3x 140 x 100cm sections for transport]
- **14x** Installation text panels – 20 x 20cm
- **2x** Free standing plinth

All dividing structures supplied are fire rated and adhere to EU and US health and safety regulations.

BUILDING BIORHYTHM

- **Delivery to venue** – single 45ft truck
  [depending on local access in and around venue]
- **Approximately 2 hours to unload into gallery with a local crew of 4**
  [depending on access at host venue]
- **Installation team over 7 days**
  1x development manager
  1x production assistant/art handler
  1x technician
  6x build crew
  1x technician/electrician - local
  1x rigger - local
- **Deinstallation team over 4 days**
  1x development manager
  1x production assistant/art handler
  1x technician
  4x build crew
  1x rigger - local
- **Equipment**
  1x fork lift
  2x pallet jacks
  10x wheel boards
  Dedicated tooling

All details are venue dependent.
HIRE

THREE MONTHS 68,000
SIX MONTHS 102,900
NINE MONTHS 118,000

Further discounts may apply to a longer run
Exchange rate dependent

HIRE INCLUDES:
- Exhibition content of fourteen installations
- Exhibition environment consisting of plinths, tables and dividing walls
  [scope of use is host venue dependent]
- Visual identity including copy for all text and signage
  [not including lead image]
- Provision of a Lead Mediator for the first week from opening of the exhibition
  — this may be extended by the host venue at their own expense
- Supporting material includes:
  - Operation & Maintenance Manual
  - Detailed document outlining construction, operation and trouble-shooting
  - Mediator & Education Handbook for staff training and running exhibition.
  - Marketing templates
  - Promotion guidelines
  - Web content and images
  - Evaluation pack
- Technical Support [minus travel/accom.], and technical training of venue staff during installation period
- Project support includes project management, design and build support during installation period
- Staff training programme with venue and gallery staff prior to opening
- Administration support includes:
  - Project Negotiations
  - Agreed artist contracts
  - Insurance in transit

HIRE EXCLUDES:
- Shipping
- Local crew
- Exhibition lighting [venue dependent]
- Structural additions
- Venue staffing
- Printing [vinyl, catalogue, etc.]
- Venue insurances
- Local marketing and promotion
- Localisation [translation, new content, etc.]
- Venue launch event
- Ancillary events, workshops and talks
- Travel and accommodation for Science Gallery installation / deinstallation team
- License for lead image if required

Please direct all enquiries to: Alejandro Mancilla - Touring Manager, alejandro.mancilla@sciencegallery.com
LINKS:
Science Gallery: http://www.sciencegallery.com
BIORHYTHM playlist video: goo.gl/Hy1D0
Twitter: www.twitter.com/sciencegallery
Facebook: www.facebook.com/sciencegallery