

SUBSCRIBE TO NEW SCIENTIST

Select a country

Subscribe

NewScientist

search New Scientist

Go

Log in

My New Scientist

Home News In-Depth Articles Blogs Opinion TV Galleries Topic Guides Last Word Subscribe Dating

Look for Science Jobs

SPACE TECH ENVIRONMENT HEALTH LIFE PHYSICS&MATH SCIENCE IN SOCIETY

Cookies & Privacy

CultureLab

Where books, arts and science collide



Virtual orchestra makes you a modern-day maestro

17:25 22 May 2012

Exhibitions Music

Christine Ottery, contributor



(Image: Geoff Caddick/PA/Science Museum)

This is no time for hesitation. I'm conducting the Philharmonia Orchestra playing Gustav Holst's The Planets in one of the interactive pods at the Science Museum's Universe of Sound installation.

The pod display is showing me where to put my hands. Coloured lights flash as I hit the right spot on the right beat: two beats in a bar - during the Jupiter movement - feels quite rewarding, while five beats - in the Neptune movement - involves following a complicated choreography of hand gesture to time.

Our other blogs

- Short Sharp Science
One Per Cent
New Scientist TV
CultureLab
Big Wide World

Bookmark&share



Categories

- A Spot of Culture
Apps
Architecture
Art
Awards
Best of 2010
Books
Comedy
Comics
Competitions
CultureLab loves...
Dance
Essay
Events
Exhibitions
Festival
Fiction
Film
Flash fiction competition



We take subsea projects farther, into deeper and colder waters. Imagine where this could take your career!

Wanted: Experienced people for developing our subsea, offshore and onshore projects.

Read more and apply here >>



- [2010](#)
- [Food](#)
- [Games](#)
- [Housekeeping](#)
- [Interviews](#)
- [Museums](#)
- [Music](#)
- [Philosophy](#)
- [Photography](#)
- [Podcast](#)
- [Poetry](#)
- [Science fiction](#)
- [Short](#)
- [Storytelling 2.0](#)
- [Television](#)
- [Theatre](#)
- [Video game](#)
- [story](#)

The backdrop to the graphics is a film of the Philharmonia playing what you are conducting. As well as *The Planets*, there is also a recording of Jody Talbot's *World, Stars, Systems, Infinity*, which even allows you to control the sound levels and timing of each part of the orchestra. The more I have to watch what I'm doing, the more I realise how difficult it is to observe and listen at the same time.

Luckily, conductors' brains have a special ability to be able to look and hear concurrently, [according to MRI brain scans](#) - while most of us have to give less attention to what we are seeing in order to focus on what we are hearing.

Other nuggets of scientific wisdom at the installation regard specific instruments. For instance, trombonists can cause a shock wave faster than the speed of sound when playing; some organs emit sounds at a lower frequency than we can hear but that may cause us anxiety or the shivers; and that now many harps are made from carbon fibre instead of wood because it is stronger.

I was interested to discover that [Björk worked with MIT Media Labs](#) to create a new kind of harp, called a [pendulum harp](#), for her [Biophilia project](#). It plays as the pendulums swing with gravity. I was also surprised to find out there are traditional symphony orchestra instruments I had never heard of, such as the celesta, a keyboard instrument that sounds like bells chiming.

The best thing about exploring the installation is that you can hear the various sections of the 132-instrumentalist ensemble deconstructed between ten different rooms. As you wander round, you can hear the strings, percussion, woodwind, brass, the harps, and the keyboards - as well as being able to see the musicians play in HD on massive screens. This gives you the sensation of actually inhabiting each section of the orchestra - as does some nifty head-cam shooting that gives you the musician's perspective.

The different orchestra sections come together in a grand central hub, which shows a representative of each section and the conductor, Esa-Pekka Salonen, on an overhead screen. "You can let the music guide you through the installation," says Philharmonia's Murray Goulstone. "If you hear the string section come in, or the brass, then you can go to visit them."

Holst's seven-movement work seems ideally suited to this kind of interactive treatment. It has a drama that even a non classical music-aficionado can appreciate, as well as the familiarity of especially the *Jupiter* movement - anyone that has heard the hymn Jerusalem will be recognise the melody, and being immersed in the orchestral experience is a rare treat for those of us who have not touched an instrument since our school music lessons.

[Universe of Sound](#) is open from 23 May to 8 July at the Science Museum, London, UK, before touring to Birmingham and Canterbury. Free.

Follow @CultureLabNS on Twitter

Like us on Facebook



tags [conductor](#) [orchestra](#) [Philharmonia Orchestra](#) [time signature](#)



Twitter updates

Controversial geoengineering field test cancelled <http://t.co/llZxfjVH> (by @m_c_marshall) 29 minutes ago

CultureLab: Virtual orchestra makes you a modern-day maestro <http://t.co/jsnwGHbT> 33 minutes ago

Material: Impossible - #metamaterial stretches when compressed <http://t.co/5aUo6jAS> about 4 hours ago

Recent entries

[Virtual orchestra makes you a modern-day maestro](#)

[A history of the insatiably curious](#)

[Power switch: A nuclear](#)

Monthly archive

[May 2012 \(20\)](#)

[April 2012 \(22\)](#)

[March 2012 \(40\)](#)

[February 2012 \(41\)](#)

[January 2012 \(36\)](#)

[December 2011 \(39\)](#)

Like what you're reading? You'll love the CultureLab section of New Scientist magazine, where science meets the arts.

**READ
NEW SCIENTIST
MAGAZINE**

**SUBSCRIBE
TODAY**



Post a comment

[Sign in](#) to comment, or comment anonymously.

Name

Email Address

URL

Remember me?

Comments

[Previous post](#)

[Next post](#)

-
- [future without uranium](#) November 2011 (38)
 - [Why geeks should be invited to the policy party](#) October 2011 (38)
 - [Win tickets to How The Light Gets In Festival](#) September 2011 (45)
 - [Why geeks should be invited to the policy party](#) August 2011 (44)
 - [Win tickets to How The Light Gets In Festival](#) July 2011 (49)
 - [Win tickets to How The Light Gets In Festival](#) June 2011 (51)
 - [Win tickets to How The Light Gets In Festival](#) May 2011 (43)
 - [Win tickets to How The Light Gets In Festival](#) April 2011 (43)
 - [Win tickets to How The Light Gets In Festival](#) March 2011 (43)
 - [Win tickets to How The Light Gets In Festival](#) February 2011 (37)
 - [Win tickets to How The Light Gets In Festival](#) January 2011 (20)
 - [Win tickets to How The Light Gets In Festival](#) December 2010 (46)
 - [Win tickets to How The Light Gets In Festival](#) November 2010 (41)
 - [Win tickets to How The Light Gets In Festival](#) October 2010 (36)
 - [Win tickets to How The Light Gets In Festival](#) September 2010 (28)
 - [Win tickets to How The Light Gets In Festival](#) August 2010 (30)
 - [Win tickets to How The Light Gets In Festival](#) July 2010 (35)
 - [Win tickets to How The Light Gets In Festival](#) June 2010 (39)
 - [Win tickets to How The Light Gets In Festival](#) May 2010 (29)
 - [Win tickets to How The Light Gets In Festival](#) April 2010 (31)
 - [Win tickets to How The Light Gets In Festival](#) March 2010 (40)
 - [Win tickets to How The Light Gets In Festival](#) February 2010 (31)
 - [Win tickets to How The Light Gets In Festival](#) January 2010 (31)
 - [Win tickets to How The Light Gets In Festival](#) December 2009 (41)
 - [Win tickets to How The Light Gets In Festival](#) November 2009 (50)

Tags

[animal](#) [art](#) [astronomy](#)
[biology](#) [book](#) [books](#) [brain](#)
[climate change](#) [comedy](#)
[competition](#) [conservation](#)
[cosmology](#) [documentary](#)
[environment](#) [evolution](#)
[exhibition](#) [film](#) [health](#)
[history](#) [history of science](#)
[holiday wish list](#) [internet](#) [life](#)
[mathematics](#) [medicine](#)
[museum](#) [recommendations](#)
[music](#) [neuroscience](#)
[philosophy](#) [photography](#)
[physics](#) [psychology](#)
[religion](#) [review](#) [science](#)
[fiction](#) [sculpture](#) [sex](#) [space](#)
[Steve Jones](#) [technology](#)

[Back to top](#)

[Go](#)

[Login](#)

About us

[New Scientist](#)
[Syndication](#)
[Recruitment Advertising](#)
[Staff at New Scientist](#)
[Advertise](#)
[RBI Jobs](#)

User Help

[Contact Us](#)
[FAQ / Help](#)
[Disclaimer](#)
[Ts & Cs](#)
[Cookies](#)
[Privacy Policy](#)

Subscriptions

[Subscribe](#)
[Renew](#)
[Gift subscription](#)
[My account](#)
[Back issues](#)
[Customer Service](#)

Links

[Site Map](#)
[Browse all articles](#)
[Magazine archive](#)
[NewScientistJobs](#)
[The LastWord](#)
[RSS Feeds](#)
[Online Store](#)
[Android App](#)
[Mobile site home](#)

Science Jobs

[Biology Jobs](#)
[Chemistry Jobs](#)
[Clinical Jobs](#)
[Sales Jobs](#)
[Earth & Environment Jobs](#)
[Engineering Jobs](#)
[Maths & IT Jobs](#)
[Graduate Jobs](#)

© Copyright Reed Business Information Ltd.