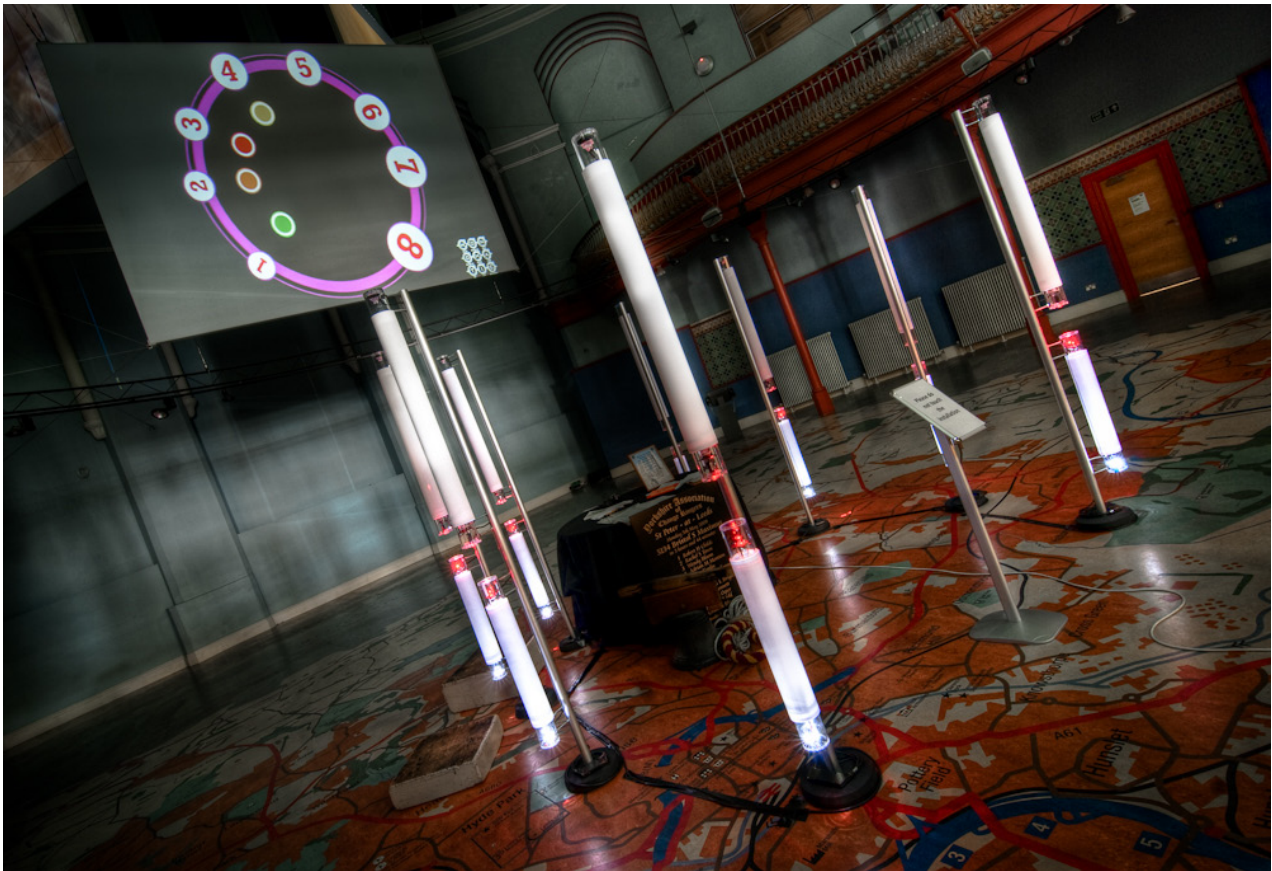


# PEAL: A Virtual Campanile

Nick Rothwell & Lewis Sykes a.k.a. Monomatic

[www.monomatic.net/peal/](http://www.monomatic.net/peal/)



## DESCRIPTION

PEAL is a laser-triggered, computer-controlled, light-sequenced emulation of a traditional English church bell tower - or "campanile" - originally commissioned by Sound and Music for Expo Leeds 2009 and conceived for the Leeds Arena of the Leeds City Museum.

PEAL brings authentic, high-quality recordings of the bells of five Leeds churches right into the gallery - to give the visitor the experience of being inside an actual bell tower. The laser triggering system allows visitors to "ring" the bells by cutting beams of light with their hands, as a shifting multicoloured lighting system responds to their actions; a cueing system allows visitors to actually play some authentic "methods" or ringing patterns dating back almost 300 years. Additionally, the installation has an automated mode where it reenacts historical peals or compositions, some lasting several hours; and it even has a built-in clock which sounds the Westminster Chimes on the hour.

The team from Monomatic spent several days visiting, photographing, videoing and recording - and, once or twice, ringing - with bell ringing bands from St. Matthias, St. Peter at Leeds Parish, St. Matthew's, St. Chad's and Leeds Cathedral, and the installation is complemented by a high-definition multi-screen video display with footage from the church bell towers synchronised to the work.

## EXHIBITED

24-29/09/09 Expo Leeds, UK

04-07/02/10 Kinetica Art Fair London, UK



**Monomatic**

5 Park Lane Court, Bury New Road, Salford M74lp. Uk.

[T]+44 [0]7988 813879 [E] [info@monomatic.net](mailto:info@monomatic.net)

[W] [www.monomatic.net](http://www.monomatic.net)



## LOCATING & EXTENDING PEAL

PEAL can be located in a range of environments: white cube to more informal gallery venues; public architectural spaces such as stations, foyers and atriums; and active and repurposed churches and chapels.

While PEAL can be exhibited 'as is' - it's also a flexible and adaptable work that can be customised to its surroundings. Options include:

- Staging live performances of traditional 'touches' and new 'compositions' by bell ringing bands from Leeds churches;
- Relocating the work for a local demographic - engaging with the bell ringing community in the local city or region; recording, and/or photographing and/or filming the bells and bell ringing activity; and recreating the photographic slideshows and/or the video. This can be realised from a relatively modest to more ambitious scale depending on budget - and having recently created this for five churches in Leeds our team, methodology and workflow are tuned to produce this content efficiently and cost-effectively;
- Extending PEAL into a dynamic and inspiring live audiovisual concert of traditional bell ringing 'touches' and new compositions alongside new original Monomatic interpretations of traditional method ringing of church bell towers - maintaining the essential algorithmic nature of the patterns of notes - but changing their sounds and adding accompaniment to create bell ringing variations shifted to a contemporary electronica style - with accompanying visual show utilising the PEAL visualisation software, lighting hardware and video and photographic content.

## CONTEXTUALISING PEAL

*“Bell-ringing is the most English of sounds. While many nations hang bells in the towers of their churches and religious foundations to call the faithful to prayer, it was in England that the ringing of bells “full circle” with rope and wheel was invented and then elevated to an art form. Only in... [England] ...can you hear practised the art of “change-ringing”, the ringing of bells in fiendishly complex mathematical patterns in which no sequence of changes is repeated.”*

Extract from Church Bells By Graham Downing

The sound of ringing church bells weaves an ever present and evocative ‘sound fabric’ across England’s cities - a uniquely sonic marker - a quality increasingly uncommon in our modern, visually dominated world.

Yet an artwork about the 300+ year old tradition may seem a little anachronistic in the context of contemporary digital art - until you consider that it responds to - or more accurately counterpoints - issues of society, technology, environment and the city; is participatory; and can be sited in public spaces and in an urban context.

Through PEAL, Monomatic have come to understand bell ringing as a unique taught collaborative craft with a specific and unusual musicianship, methodology and complexity - based on simple algorithmic rules but factorial permutations - which we’ve tried to express in an engaging and accessible way to modern audiences.

Our experience with PEAL at Kinetica Art Fair 10 and Expo Leeds 09 and the enthusiastic response it received from the bell-ringing communities of Leeds, Leeds City Museum staff, Expo team and producers and general public alike have reaffirmed our faith in its integrity and broad appeal.

We find it fascinating and think its aural distinctiveness, quintessential Englishness, physical mechanics, permutational mathematics, historical resonance, community focus and sheer emotive quality make it an ideal subject for artistic exploration and interpretation.

## MONOMATIC BIOGRAPHY

Monomatic is a collaboration, experimental playground and halfway house between the work of Nick Rothwell and Lewis Sykes.

**NICK ROTHWELL** is a composer, performer, software architect, programmer and sound designer. He has built performance systems for projects with Ballett Frankfurt, Vienna Volksoper and Braunarts, and has worked at STEIM (Amsterdam), CAMAC (Paris) and ZKM (Karlsruhe). He has composed sound tracks for choreographers Aydin Teker (Istanbul) and Richard Siegal (Laban Centre), and has performed with Laurie Booth (Dance Umbrella, New Territories), and at the Different Skies Festival (Arcosanti, Arizona), the ICA, and the Science Museum’s Dana Centre. He is currently working in software for Wayne McGregor|Random Dance (Sadler’s Wells), in sound for body>data>space alongside CIANT (Prague) and Kibla (Slovenia), and in audiovisuals for the current Future of Sound tour.

Cassiel: [www.cassiel.com](http://www.cassiel.com)

Works: [www.cassiel.com/space/Projects](http://www.cassiel.com/space/Projects)

Compositions: [soundcloud.com/cassiel](https://soundcloud.com/cassiel)

**LEWIS SYKES** is an experienced musician and music technologist, interaction and graphic designer, digital media producer, experimental visuals enthusiast and an JNC qualified Youth & Community Worker specialising in arts. A veteran bass player of the underground dub-dance scene of the 90s he performed and recorded with acts such as Emperor Sly, Original Hi-Fi, Somatik, Ppink and Radical Dance Faction, was a partner in the respected underground dance label Zip Dog Records and is currently musician for the progressive AV collective The Sancho Plan. Lewis is Director of Cybersonica - an annual celebration of music, sound art and technology (now in its eighth year) - and between 2002-2007 was Coordinator of the independent digital arts agency Cybersalon - founding Artists in Residence at the Science Museum’s Dana Centre.

The Sancho Plan: [www.thesanchoplan.com](http://www.thesanchoplan.com)

Cybersonica: [www.cybersonica.org](http://www.cybersonica.org)

Blog: [blog.lewissykes.info](http://blog.lewissykes.info)

## STAGING PEAL

PEAL is an interactive sound installation which models the layout and operation of a traditional English church bell tower with a ring of eight bells - replacing the circle of bell ropes by custom designed and hand-built LED light columns integrating a laser triggering system. When a laser beam is interrupted by a player's hand it rings the appropriate bell through a multi-speaker sound system. The audio is augmented by the shifting multicoloured lighting system of the columns, a stylised graphical interface projected on the floor between them and a display of HD video and high quality photography of the church buildings, the bells and their mechanics and bell-ringing practice - all triggered and sequenced in response to the players' actions.

The installation can operate in various modes:

- As an 'interactive' it allows visitors to reproduce a variety of bell ringing patterns by 'playing' the ring of bells - guided by on-screen instructions and a visual cueing system akin to *Guitar Hero*;
- In 'self-play' mode it reenacts historical peals or compositions - some dating back to 1742 and lasting several hours;
- As an 'instrument' it can be used for performance by bell-ringing bands;
- As a 'timepiece' it has a built-in clock which sounds the Westminster Chimes on the hour

For bookings and further information please contact [info@monomatic.net](mailto:info@monomatic.net) or call +44 (0) 7988 813879.

### Space requirements

- A minimum 6m [w] x 6m [d] x 3m [h] exhibition space with subdued natural lighting (blackout preferred but not required)
- minimum 2 x 240V x 13A power sockets - ideally on separate ring mains

### Visual Specs

- min 2 x projectors, VGA connectivity (1 with with short-throw lens 0.5:1) and sufficient lumens for screen size & ambient light in venue - suggest 3k minimum + 2 x ceiling mount/cradle + secondary safety cables
- 2 x carousel slide projectors + ceiling mount/cradle (positioning approximate in diagram)

PEAL can also be exhibited as a multi-screen installation - up to 6 displays - but requires:

- additional projectors and screens
- an Alpine McBride Video Binloop unit

### Audio Specs

PEAL requires the following quad system (or equivalent):

- 4 x B&W WM6 speakers
- 1 x Rotel RMB 1066 Power Amp
- 4 x stands with clamps or ceiling/wall mounts + secondary safety cables
- cabling - speaker and power

### Staffing

- Set-up requires two members of the Monomatic team and a minimum of a full day to install
- A member of Monomatic (probably) needs to be on site at all times to invigilate the work - usually not a problem for exhibitions/events/festivals lasting up to one week
- Exhibition of longer duration may still be possible - please contact Monomatic to discuss

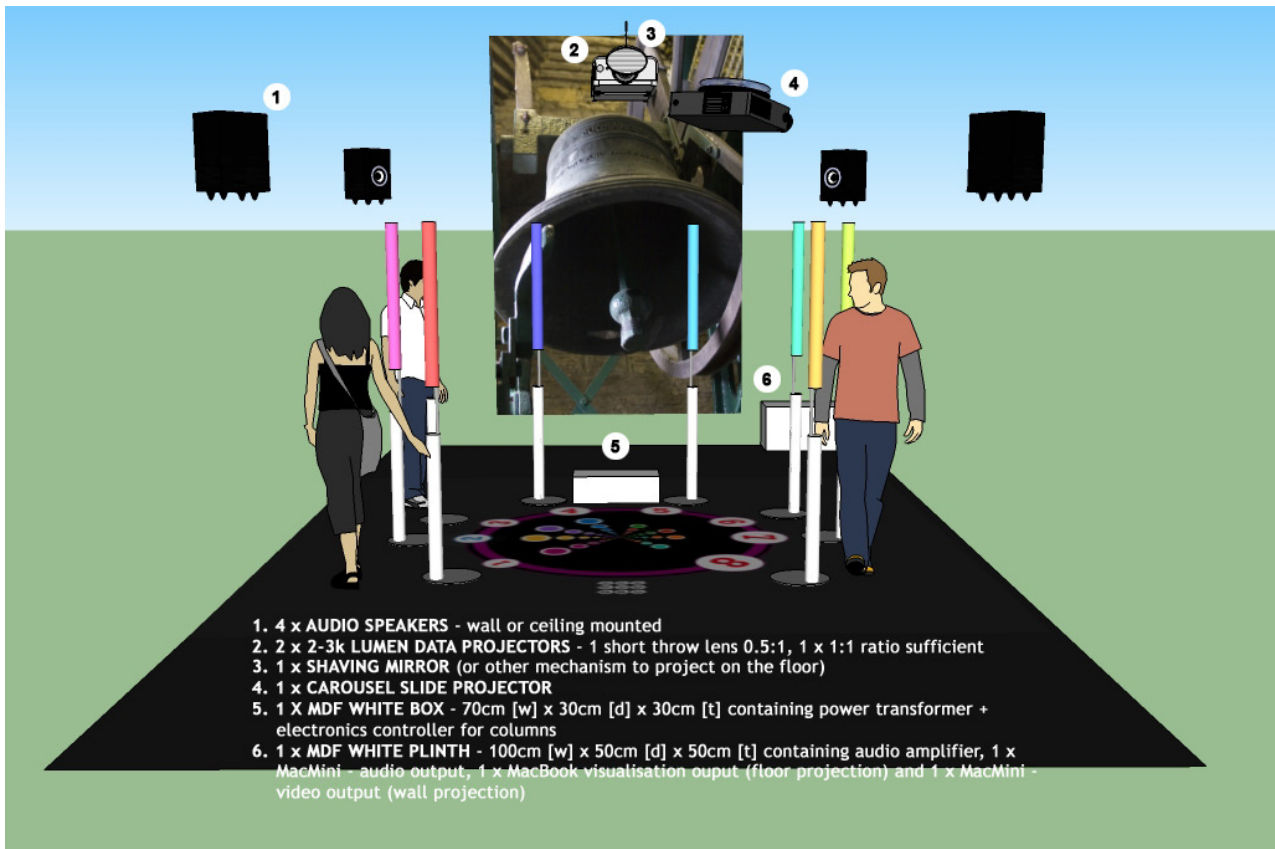
### Media

- *Installation* - eight 'virtual bell ropes' - 2.1m tall columns in aluminium/steel/acrylic/lycra/RGB LED/laser
- *Audio* - high-quality recordings of bells from 5 Leeds churches + background atmospherics
- *Video* - stylised graphical user interface + HD video and photographic slideshows from 5 Leeds churches

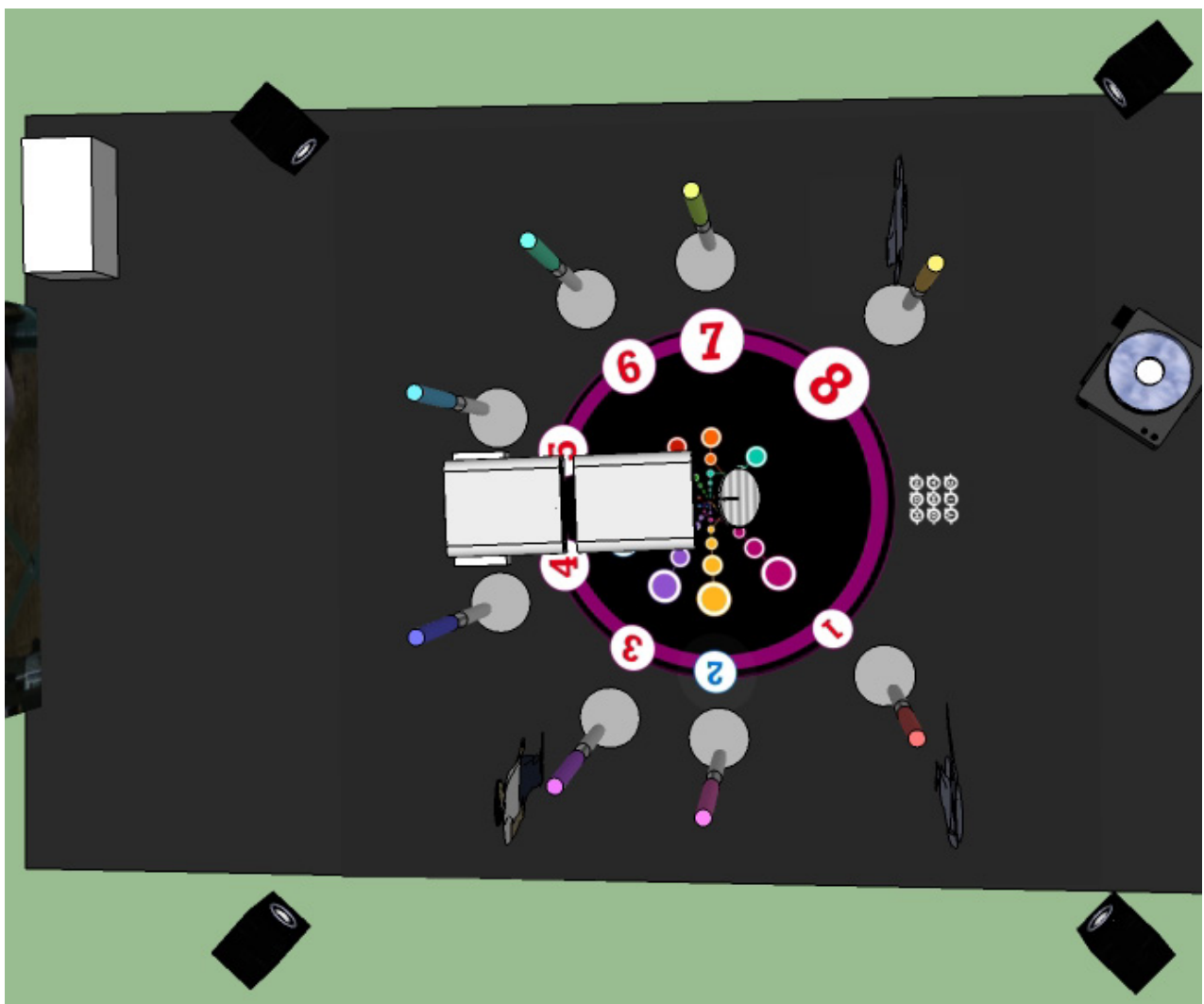
### Keywords

- bell ringing, campanile, sonic art, interactive, audiovisual, urban, participatory, public space

## FRONT ELEVATION



## TOP-DOWN ELEVATION



# COLUMN DIMENSIONS

