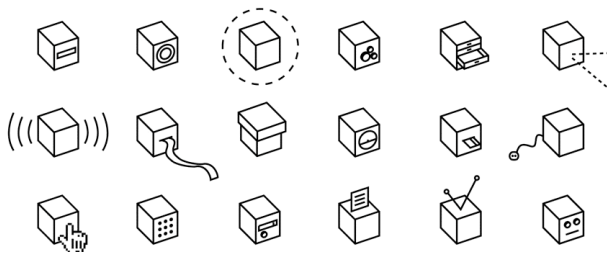


Exam assignment



... AND WALLS HAVE EARS

1 Brief

Our initial workshop showed that interaction design is not only about keyboards and screens. 'Physical computing' inputs many kinds of stimuli from people and the environment – luminous, acoustic, atmospheric, mechanical etc. – and outputs it, transformed, as maybe equally physical phenomena. So you are now asked to:

Design and prototype an interactive informational installation in Venice or its Lagoon.

The installation:

- Can be small enough to hold in your hand, or as large as a room or landscape
- Must be *interactive*. An action by the user(s) provokes an action by the installation, and vice versa. A reciprocal dialogue follows
- Must inform or educate. It will have a clear aesthetic quality, but its main purpose is to *inform*: to give facts or tell a story. It is not primarily a work of art.

We make information – not art. However ...

2 Installation and media art

Especially since the late 1960s many artists have moved from painting and sculpture to making installations in galleries and outside spaces. Key names include Joseph Beuys, Helen Chadwick, Christo, Walter De Maria, Gabriel Orozco, Richard Long, Mario Merz, Giuseppe Penone, Michelangelo Pistoletto, James Turrell, and Richard Wilson. These tended to place the viewer within an emotionally charged space or in the presence of a poetically ambiguous configuration of objects.

More recently, installations have also used sound, light, digital images or mechanical movement. Relevant work here, though not all interactive, includes that by Ron Arad, Pierpaolo Calzolari, Andy Cameron, Bill Fontana, Usman Haque, Gary Hill, Jenny Holzer, Rebecca Horn, Rafael Lozano-Hemmer, Maurizio Mochetti, Christian Moeller, Ben Rubin (Ear Studio), Lars Spuybroek (NOX), Studio Azzurro, Bill Viola, and Krzysztof Wodiczko.

Your project is not primarily art. But it learns, from installation and media art, how spaces can tell stories.

3 Venice and physical information transmitters

Historically, Venetians and visitors were surrounded by physical and spatial transmitters of information and meaning. For instance:

- The huge cycles of mosaics and paintings inside and outside churches, *scuole* and palaces, informing the public of the history of the republic and its religion
- Campanili, their lights guiding ships, their bells broadcasting in sound the time of day, the church and state calendar, or the arrival home of merchant fleets
- The campanili of San Marco and San Giorgio Maggiore and the dome of the Salute – together defining, by triangulation, a uniquely maritime *sacro santo*: the Bacino
- The revolving Fortuna on the Punta della Dogana, showing the direction of the wind
- Vast clocks, like that of San Giacometto in Rialto
- The kinetic automata of the torre dell'Orologio
- Feast-day processions: participatory performances which, processing to music through the city and across water, demonstrated the structures of Venetian authority and society.

Information was thus publicly broadcast, usually in a manner subtly poetic or rhetorically forceful. Your project should inform the public with similar subtlety or rhetoric.

The waters write, stones speak, the sky has eyes, and walls have ears.

4 **Design phases**

Weeks

- 2.2 Invent an idea for your installation
- 2.3 Do background research for it
- 2.4–5 Develop its design
- 2.6–7 Prepare the design for prototyping
- 2.8–10 Prototype it
- 2.10–11 Present it.

Time and resources will probably prevent your prototype from being full-scale and fully working. More likely is a small-scale interactive abstract model or an on-screen simulation of your installation.

Please record your work-in-progress throughout the term, and eventually your final work for examination, on the Lab 2 website (ready soon).

5 **Design ideas phase**

Working as individuals or groups of no more than two, brainstorm many possible solutions to this project. For each idea, ask questions like:

- Who is the installation for?
- What information does it give?
- Where is it sited?
- What are its input and output?
- How does it feel to interact with it?

Present your ideas to the class, using projection or posters etc., at the crit on Monday 29 January.

6 **Some resources**

Tech stuff:

- Nasty Pixel and InstantSoup: www.nastypixel.com
- Low-tech sensors and actuators: www.lowtech.propositions.org.uk
- Wiring: <http://wiring.org.co>

Information visualisation: www.visualcomplexity.com

Good stuff update: www.we-make-money-not-art

Some relevant artists and designers:

- Bill Fontana: www.resoundings.org
- Futurefarmers: www.futurefarmers.com
- Usman Haque: www.haque.co.uk
- Rafael Lozano-Hemmer: www.lozano-hemmer.com
- Christian Moeller: www.christian-moeller.com
- Ben Rubin: www.earstudio.com
- Adam Somlai-Fisher: www.aether.hu
- Lars Spuybroek: www.noxarch.com

SENSEable City Lab, MIT (project shown at Venice Biennale 2006):
<http://senseable.mit.edu/realtimerome>

Books:

- Lucy Bullivant, ed. *4dspace: Interactive Architecture*. Architectural Design, 75/1. Wiley-Academy, London. 2005
- Andy Cameron, ed. *The Art of Experimental Interaction Design*. IdN (International Designers Network) special edition 04. IdN, Tokyo. 2004
- Dan O'Sullivan, Tom Igoe. *Physical Computing*. NYU Press, New York, NY. 2004

More useful sources to ptabor@iuav.it please.

(The illustration on p1 is from Victor Vina's Boxes project, 2003)