RAFAEL LOZANO-HEMMER

Rafael Lozano-Hemmer is a Mexican-Canadian artist who makes **interactive** artworks for public places. He was born in Mexico City in 1967, and has a degree in Physical Chemistry. He has worked in radio and in the theatre, as well with new media such as **virtual reality** and the **Internet**. He now lives in Madrid, Spain.

Lozano-Hemmer is particularly interested in the relationships between people, places and artwork. He often makes large, spectacular outdoor light projections, where the audience can participate in a creative way. Some 'interactive' new media artworks only allow for very simple choices by the users, but Lozano-Hemmer's artwork is often 'participatory' because the audience can make their own ideas visible.

Body Movies, Relational Architecture No.6
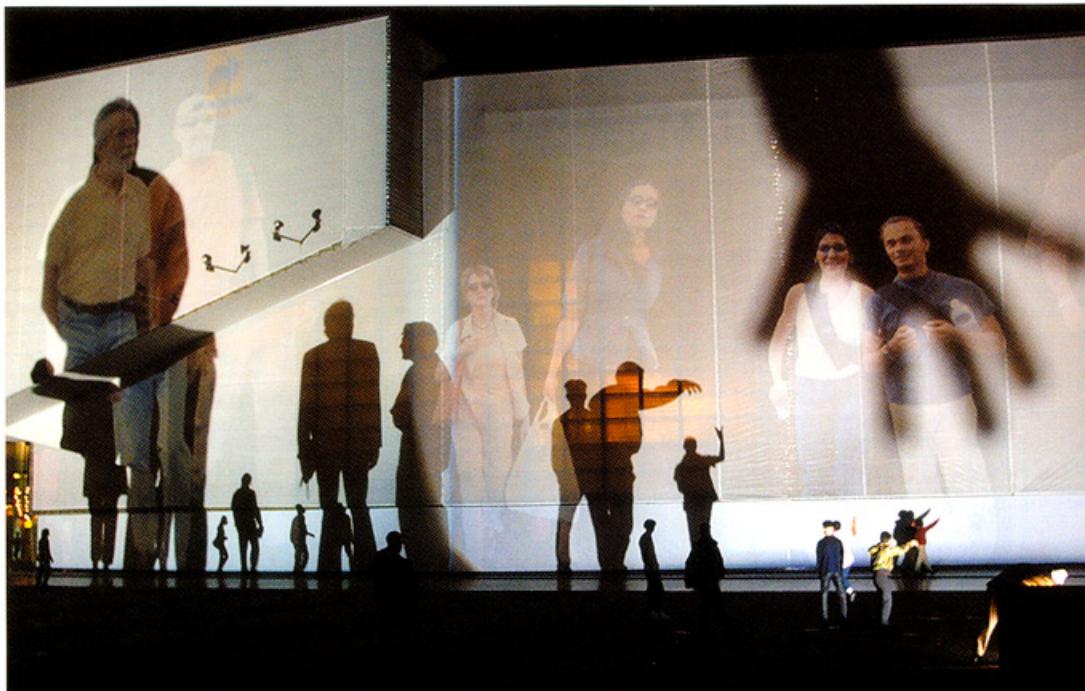
People interacting with Body Movies, Relational Architecture No.6 *(2001) in a public square in Rotterdam, the Netherlands.*

28

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Body Movies is shown in public squares, and involves projecting images at night on to the large walls of buildings. One set of projectors shines some **digital** photo portraits of people (taken in Rotterdam, Madrid, Mexico and Montreal) onto the walls. A different set of bright white searchlights at ground level project the shadows of everyone crossing the square onto the same wall. These white lights have special lenses and are so bright that they wipe out the photographic projections, apart from where the dark shadows fall. If audience members make their shadows into the same shape as the portraits in the photographic projections, they can see the whole portraits, and are 'rewarded' by more portraits appearing.

Some people in the squares teamed up to cover the portraits, and others used the shadows to create their own visual jokes, dramas or communication. These interactions between people included friends and strangers, and ranged from the elaborate (with people bringing special props) to simple gestures. The artwork was in each square for about a month, and because shadows are familiar to people, the audience worked out for themselves what to do, rather than having to read instructions.

A dialogue

Digital media can make international communication possible, but can also be used for war and intimidation. Through his artwork, Lozano-Hemmer tries to make a 'dialogue' with the audience, and attempts to make them more aware of where they are, how their country might relate to another country, and how they use their own power or size. The artworks are called *Relational Architecture* because the artist says they are 'relationship-specific' for that particular audience and public place.

> *The key is to develop pieces that offer some degree of intimacy within an intimidating scale. Also to find participation metaphors [ways of taking part that are understandable] that are relatively familiar or self-explanatory.* RAFAEL LOZANO-HEMMER

Working method

Body Movies works because there is a video camera connected to some special computer **software** that can recognize when people's shadows are covering the portraits. This then triggers new digital portraits on the computer which are projected by **data projectors** that create large images of what appears on the computer screen.

Lozano-Hemmer carefully researches the location, plans how the audience might interact with the artwork, and then often works with technical experts to make the interface equipment. Large artworks can involve collaboration with many other people in a team, like a theatrical project, with a producer to help organize events. Lozano-Hemmer prefers to work with free software, rather than the expensive software sold by commercial companies.

Lozano-Hemmer has worked with theatre and performance groups in the past, and *Body Movies* has a direct reference to a 1675 **engraving** called *The Shadow Dance* where actors with fantasy props perform as shadows. Several kinds of performance allow for audience participation, including popular forms such as British pantomime, and the art 'Happenings' of Allan Kaprow (b. 1927) and others in the 1950s and 1960s. Large 'light shows' have a history that includes pop music concerts and political rallies.
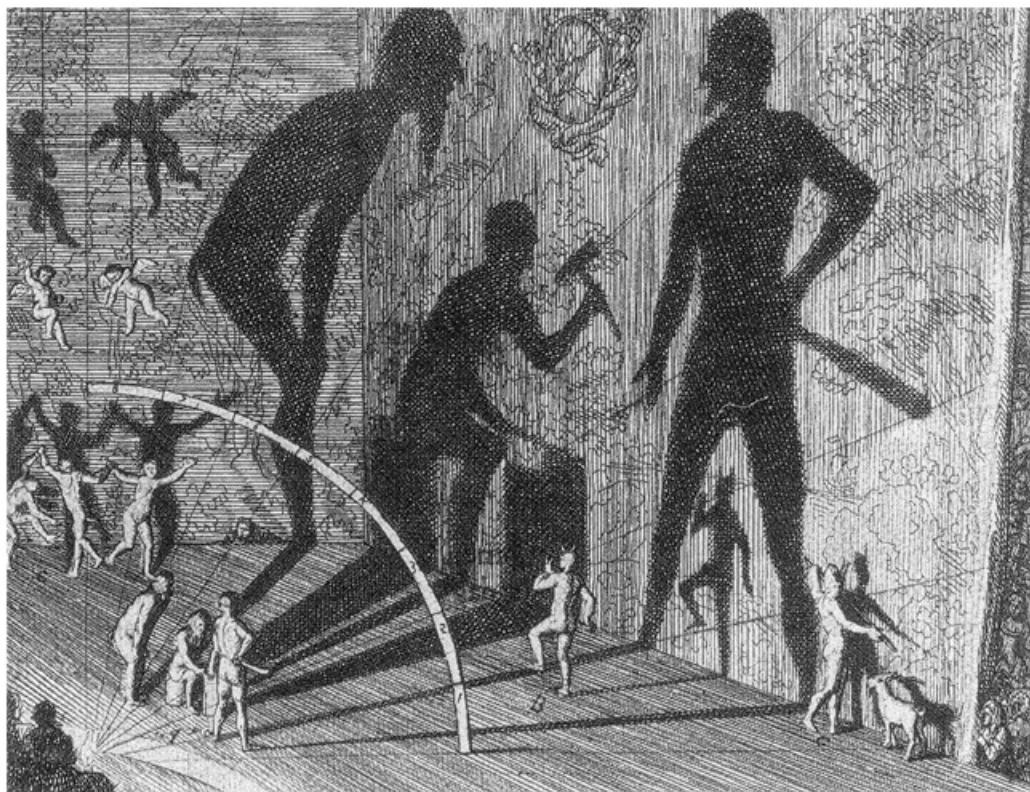
The Shadow Dance *by Samuel van Hoogstraten from a Dutch book called* The School of Drama, *1675. This shows a very old form of theatrical entertainment.*

Searchlights on the Internet

Lozano-Hemmer has made other artworks in his *Relational Architecture* series. No. 4 was called *Vectorial Elevation*, and involved eighteen very bright searchlights arranged around a huge public square in Mexico City. The movements of the searchlights could be controlled by the public, using an instruction page on the Internet. Several **webcams** around the square recorded each person's light show, and automatically saved the images on the Internet site, so that everyone could see a record of what they had made, and could type in a comment. There were also computer kiosks in the square, showing the same web pages, so that the audience was both local and international (from 89 different countries). The artwork was made by many people and over 700,000 people visited the Internet site. Public squares and buildings often have strong political or cultural meaning, and Lozano-Hemmer has made other artworks that 'make visible' the power and history of certain buildings.

Vectorial Elevation was a very big event to organize. A rock music tour company installed the lights, the control room had twenty computers and ten programmers made special software to connect the Internet instructions to the searchlight-moving mechanisms.
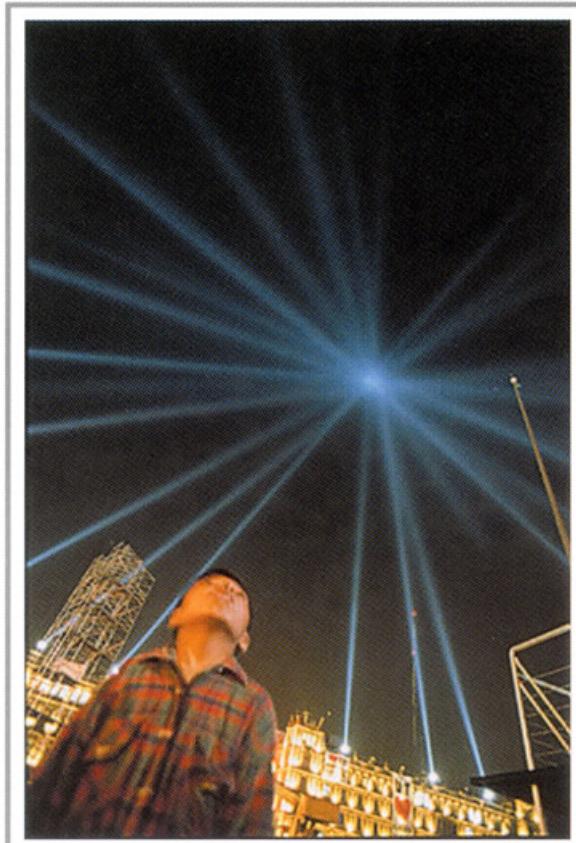
A child watching the light show Vectorial Elevations, Relational Architecture No. 4 *in Zócalo Square, Mexico City.*

Influences

Lozano-Hemmer's 'favourite projection artist' is Krzysztof Wodiczko (b. 1943), who projected site-specific political **photomontage** images onto the outside of public buildings in the 1980s and 1990s. This included putting a swastika on the South African Embassy building in London, to protest against **apartheid**. Other digital artists making **public art** outdoors include Susan Collins (b. 1964), and Christian Möller (b. 1959).