

ARTISTS' STATEMENTS

THE INTERNATIONAL TRANSCIENT CARTOGRAPHICACY PROJECT

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The International Transcient Cartographicacy Project exposes both the continuities and the distortions of contemporary urban experience through storytelling and a series of superimposed audiovisual environments. The project challenges traditional cartography by attempting to blur the boundaries between politically

demarcated and subjectively experienced space by representing a hybrid, conceptual space through memories and personal experiences.

During the fall of 2003, we conducted interviews with family, friends and acquaintances who had traveled or lived in Mexico City. From the information we collected, we generated an interactive map of the city organized around these stories and personal experiences (Color Plate D No. 1). This map was placed on-line and made openly available for comments and additional stories. The map was specially created for this project by integrating the design for a simple, spatially oriented message board with a sophisticated PHP and MySQL database-driven open-source application called ActionApps [1].

In March 2004 we traveled to Mexico City, where, during a 2-week period, we explored and documented the city with video, film and photographs, using the map as a navigational and spiritual guide. In June 2004 we traveled to

Dublin, Ireland, to present our documentation as a series of public installations during the ReJoyce Dublin 2004 Festival, which marked the 100th anniversary of Bloomsday (the day on which James Joyce's *Ulysses* is set). The project was inspired by the "Wandering Rocks" episode (the 10th chapter of the novel), in which residents of Dublin are described moving about the city during the afternoon of 16 June 1904.

Over the course of a week, six installations were presented separately at six sites around Dublin. Each video was projected at near-human scale at sites chosen according to how well they connected with the presented footage. One video segment of Mexico City residents boating through the canals in the borough of Xochimilco was projected onto the banks of the Liffey River, making it appear as though the boats were floating through Dublin. On another night, in a corner of Meeting House Square, another video segment showed children feeding pigeons and couples strolling past what was once the hacienda of Hernan Cortés in the public plaza of Coyoacán (Fig. 1). The Mexican organ grinder in that video became a performer for Dubliners on their way to restaurants, pubs or the nearby Irish Film Centre. In another installation, the image of the Virgin de Guadalupe was displayed to visitors of St. Mary's Abbey. Tourgoers made their way through the exhibits set up in the last remaining structure of this ancient monastery while an image of Mexico City's *virgen* floated silently above them. In each of the installations, an audio soundtrack projected the stories that we had collected in our original interviews, plus sounds gathered in Mexico City. These sounds then mingled with and became part of the Dublin landscape, creating a third soundtrack of virtual resonance.

Through a layered combination of images, sounds and stories, barriers between time and territory collapsed into shared experiences, briefly turning differences into similarities.

Note

1. ActionApps was developed by the Association for Progressive Communications.

Fig. 1. *The International Transcient Cartographicacy Project* (Public Space segment), 2003–2004. (© Gilbert Guerrero and Kathleen Quillian) Single-channel video installation with sound and on-line interactive map. Public space is given a new dimension as the daily activities of Mexico City residents moving through the Jardín del Centenario in Coyoacán are superimposed onto the landscape of Diceman's Corner, Meeting House Square, Dublin, Ireland.

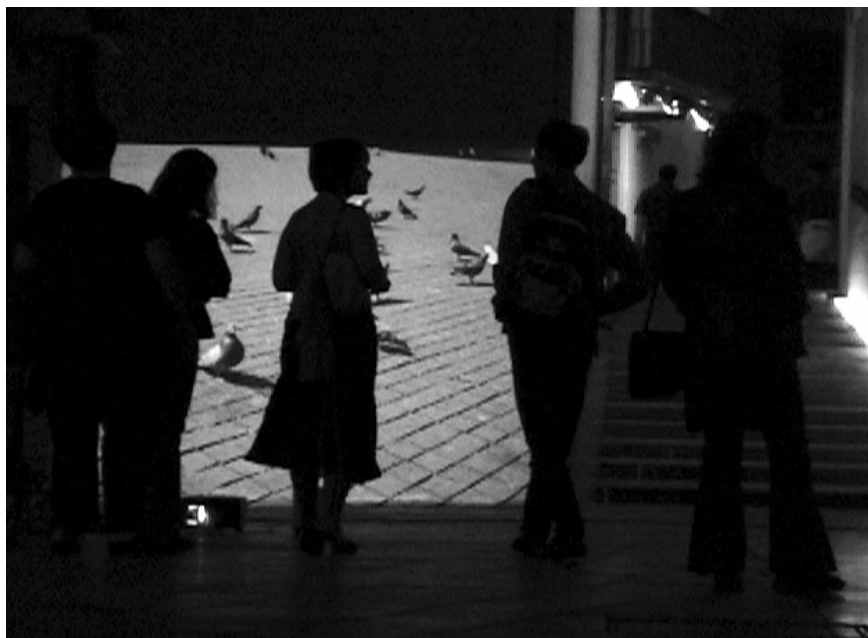




Fig. 2. Tim Otto Roth, *I See What I See Not*, cosmic particle shower live at the art façade in Munich, 76 RGB neon light elements controllable via Internet, 9 × 6 m, 700 square feet, 23 February 2005. (© Tim Otto Roth)

A WALK ON THE RETINAS OF THE EXTREME SCIENCES: A MINIMALIST CONCEPT FOR AN INTERNET-BASED LIGHT ART FAÇADE IN MUNICH

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With *I See What I See Not* [1] (Fig. 2 and Color Plate D No. 2), I wanted to create a cosmic matrix showing the most advanced results of the imaging machines in astronomy and elementary particle physics. In 2003 I was invited to develop a concept for the light façade of the Communication Group Serviceplan to be shown during the winter months of 2003–2004. This façade, close to the Lenbachhaus in Munich, is distinctive because its 76 RGB neon light panels, spread over 63 square meters, can be controlled via the Internet.

This art-project façade represented a formal challenge. The basic question was whether it would be possible to show something that could still be called a picture on an area that consisted solely of 10-×-10-pixel elements—corresponding to the diameter of a

match on a normal computer screen. Therefore I decided to explore the images of astronomy and particle physics. In these advanced disciplines, a few pixels detected by the image sensors and detectors can refer to an astronomical object or to a subatomic particle. So I zoomed in on the pixel level of images from, for example, the Hubble Space Telescope, the Chandra X-ray Observatory, the Very Large Telescope at the European Southern Observatory (ESO), the Wilkinson Microwave Anisotropy Probe (WMAP) or Brookhaven's Solenoidal Tracker at RHIC (STAR) detector and conveyed the pixels 1 to 1 onto the light elements of the art façade. In this way the play of light on the art façade became a walk on the retinas of the extreme sciences that investigate the most distant boundaries of the cosmos.

For me it was important that this deep focus document what happens in science without being merely illustrative. So the project in Munich became a formal play with faraway and close-up perspectives. It also reveals, however, the aspect of revelation in science: Every single pixel is a potential sign representing a photon that has traveled for aeons through the universe or a subatomic particle. What makes these images so different and interesting is this *Aufladungsprozess* in which every

pixel gains an enormous significance and figurative power.

To keep the project closely tied to scientific results, I conducted an intensive dialogue with astronomers and particle physicists. The most impressive event in this process was a visit to ESO's Paranal Observatory in Chile's Atacama Desert. There I had the realization that astronomical observations involve more than just acquiring data. I felt a certain metaphysical tension in observing the scientists looking up into the eternity of the sky using the most advanced technology.

In winter 2004–2005 I took a more immediate look at the work of scientists, putting more emphasis on the raw images and data. During that winter cycle, the immediate, merely processed results from astrophysics and elementary physics were transmitted in near-real time to the façade. The partners cooperating in this live transmission were: the Max-Planck-Institut für Radioastronomie/Dominion Radio Astrophysical Observatory, the Solar and Heliospheric Observatory (SOHO) mission, the Forschungszentrum Karlsruhe, Brookhaven National Laboratory, the Stanford Linear Accelerator Center, Fermilab and the Japanese High Energy Accelerator Research Organisation (KEK). The project could be followed live daily via webcam between 17:00 and 20:00 MET until the end of March 2005. With *100 Days—100 Imachinations* [2], I was to launch a further Internet-based project at the end of November as a large projection work at the ZKM Karlsruhe linking various international scientific institutions such as Schloß Dagstuhl and the High Altitude Research Station Jungfraujoch (Switzerland). Finally, the project *Pixelsex* [3] (summer 2005) brought a life-science topic live to the largest light wall on the 80-meter-high KPN Telecom Tower in Rotterdam, showing simulations of myxobacteria based on cellular automata.

Last but not least, I take this opportunity to say thank you to the scientists who worked with me and are also a part of the project.

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GENERATIVE FLOWERS AS A LANGUAGE OF FORMS FOR THE VISUALIZATION OF BINARY INFORMATION

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In the past few decades, fractal methods have become common in generative art. Such methods can be applied to data visualization, yielding generative objects open to interpretation in terms of a data structure. Various authors have proposed approaches based on botanically inspired Lindenmayer fractals [1] and related methods [2–5]. The method I propose here makes use of nonlinear fractal trees [6], which are bent as a function of the information present in a given bit string. I analyze the string by moving a p -bit window over it and determining coefficients for each of 2^p strings of length p . The latter strings are associated with the leaves of a tree with 2^p end-nodes, and the coefficients of these strings determine the curvature in the branches of the tree. Before it is bent, a tree-representa-

tion has to be initialized. An initialization is appropriate if the spatial structure of branches gives visual information about the p -strings attached. This can be realized if the initialization of the tree is a highly structured and familiar form. In Color Plate E, I use the boundary of the Mandelbrot set to initialize a tree.

After a tree is bent by data, I turn it into flower form. This is carried out in two steps. First, I interpolate endpoints with a contour. Second, I project this contour in a series of steps so that a surface is obtained. The projections are defined by successive small variations of the parameters associated with the tree. More concrete or more abstract flower forms result, depending on the choice of parameters. In an alternative method, the flower is generated and does not envelop the tree, but is put at different times on top of the leaves instead. The spread of the flowers over the leaves of the tree—as well as their attributes “size” and “open/closed”—are based on information derived from p -bit analysis (Color Plate E).

This procedure can be applied to bit strings that appear in fundamental domains such as one-dimensional cellular automata and tag systems (which figure in discussions about fundamental aspects of our world and our knowl-

edge [7]), or to visualize the properties of bit strings that occur in more applied domains, such as genetics or musical composition. If music is encoded in a long bit string over which a bit window is moved that is in turn analyzed in terms of smaller p -bit windows, a moving visualization results in which the tree structure is transformed continuously and the flower canopy on top of it widens and shrinks, and for which flowers continuously open and close as a function of musical progression.

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CALL FOR PAPERS

Archiving, Collecting, Documenting and Conserving the Media Arts

Throughout the 20th century, and certainly at an increasing pace since the 1960s, new art forms that feature technological components have been throwing traditional conservation and documentation practices into upheaval. These works of art are many and varied. They may be analog or digital, mechanical, and/or electronic; they are often multimedia based and include a variety of components, such as mechanical parts, software, electronic systems, varied electronic media formats, etc. Museums, which are charged with preserving and providing access to these works, often find themselves without adequate resources and must make do with methods and means that are poorly adapted to a growing number of artistic practices.

Guest Editors Jean Gagnon and Alain Depocas from the Daniel Langlois Foundation (Montreal) invite researchers, scholars, artists and others to submit articles for publication in a new special section in *Leonardo* concerned with documenting and conserving the media arts heritage. This new section is the journal's contribution to a larger research alliance bringing together museums, universities and organizations from Canada, the U.S.A. and Europe with funding from the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Daniel Langlois Foundation.

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- documentation
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