
A TOUCH OF CODE

INTERACTIVE
INSTALLATIONS AND
EXPERIENCES

gestalten

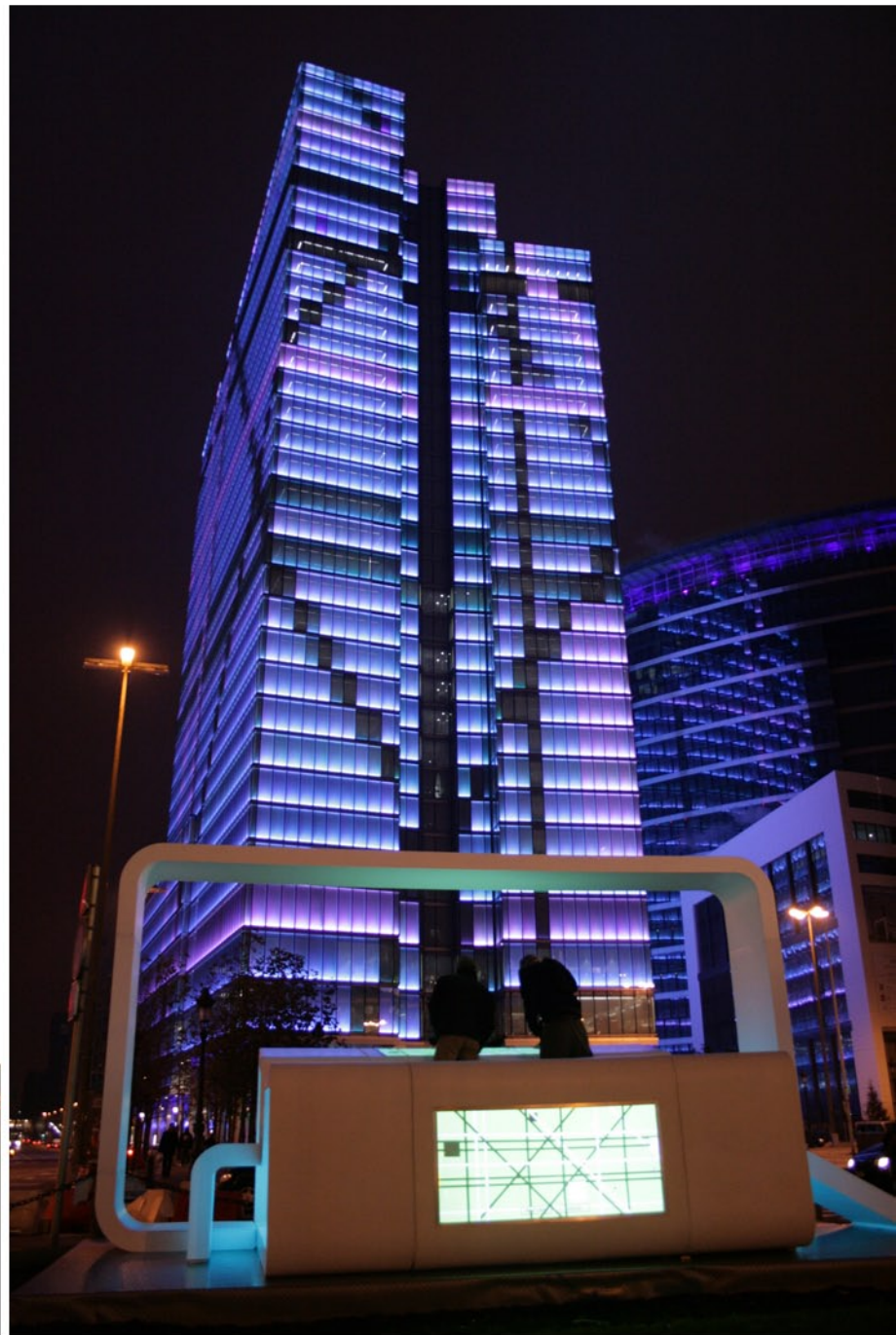


LAB[au]

Architects: Philippe Samyn & Partners, M & J.M. Jaspers—J. Eyers & Partners

TOUCH

LAB[au] aims to transform the general perception of media façades, in this case the Dexia Tower, from purely a marketing and corporate image device, towards an urban art work made with light. The challenge lay in the design of the interactive interface and the identification through interaction which involves every user via the setting up of an urban landmark. From this point of view the illumination concept is the design of communication. On Rogier Place in Brussels, at the base of the 145 meter-high tower, a multi-touch screen is mounted where people, either individually or collectively, can interact with the installation in real time. The interaction is achieved by both static and dynamic inputs. It takes parameters of size (finger, hand), direction (horizontal, vertical, diagonal) as well as duration (introducing growth) into account. The inputs of the achieved by both static and dynamic inputs. It takes parameters of size (finger, hand), direction (horizontal, vertical, diagonal) as well as duration (introducing growth) into account. The inputs of the user establishes a play of graphic elements inspired by abstract art such as Mondrian's elementarism and Kandinsky's point-and-line-to-plane. These geometric forms are associated with the building as follows: points = pixels = windows, lines and diagonals = levels and edges, and surfaces = façades. The shapes are displayed in real time above a monochromatic light, which the user defines in the initial step, whereas the forms are displayed in black and white according to the positive or negative (up/down, left/right...) direction of the user's input. Once a composition is created, it can be sent as an electronic postcard showing a snapshot from the tower, taken from a distant location and streamed back to the pavilion's interface. The e-postcard is also uploaded on a specific project website where people can retrieve their composition, in a printable format, with Christmas and New Year's wishes added. The design of the interface is based on the idea of unfolding the tower to the two-dimensional surface of the multi-touch screen allowing a coherent mapping of the actual building. The aim of this mapping is to establish a direct relationship between the pixel resolution of the screen-space and the actual building, giving the user an intuitive means of interaction. Following this objective the gesture recognition has been reduced to simple inputs and direct feed-back in order to focus the users' intention and vision towards the tower, rather than to the interface. However, the interface was not limited to the design of a screen interface, it was extended rather, to the design of an entire pavilion to cope with the scale of the urban context. The pavilion is divided into three parts: the first section allows people to interact on a multi-touch screen, the second section displays user interaction directly (finger drawing) on a projection screen and the third section frames the user's vision towards the tower. In this manner the station not only establishes a direct relationship to the luminous visual construction of the tower, but also displays the ongoing process of user interaction to people passing by.





LAB[au]

12M4S

The interactive urban installation *12m4s* is based on the speed an average person walks. This average speed means a person walks a distance of twelve meters in approximately four seconds. Human movements are tracked in real time to generate a visual and auditory scape on a twelve-meter, hanging Mylar screen. A graphic vector-field in the area in front of the screen allows the image projection to react to the movement of passersby. The sounds are generated from image recognition data and diffused from eight speakers mounted along the screen. Ultrasound sensors are used to create echograms of the space, the visual and sonic sensing techniques produce reciprocal representations and merge into one spatial construct. The semi-transparent mirror-screen is designed specifically to alternatively reflect as a mirror, and as a straight-forward receptacle for the projection. The result is an effect of varying reflection and projection.

studio klv

1 FLIGHT PATHS

2 FOOTRACE

Client: Dynamikum

Studio Klv designed *Flight Paths* and *Footrace* for the exhibition Dynamikum, in a science museum located in a former shoe factory in Germany. The theme of the exhibition was movement, the intention: to explore the motives and modes of human motion. In *Flight Paths*, visitors toss a ball whose flight path is shown on a projection screen. The path's color indicates the speed of the ball, and the parabola shape of its trajectory indicates detailed information about the arc of the throw. In their installation *Footrace* participants step onto a track when an animal appears on the screen that they choose to compete against. The participants run alongside the animal, and once the race is finished, facts about the animal and its skills are displayed.





LAB[au]

F5X5X5

The installation *f5x5x5* is a kinetic light sculpture comprising five separate modules. Each of the modules has twenty-five square elements, establishing a grid of 5 x 5 x 5, altogether 125 frames. The 5 x 5 matrix of each module is the minimum resolution required for alphabetic and numeric displays. Furthermore, each of the 125 frames contains another sub-frame: a square rotating around its central vertical axis, which in turn contains a square rotating around its horizontal axis. This embedded structure forms a total of 125 static and 250 kinetic frames. At its base, the structure holds 50 infra-red sensors, which form a horizontal sensing matrix at ground level. Each of the sensors produces binary data: either 0 or 1, dependent on a person's presence within its tracking beam. The sensors allow the frames to physically react to the position and movement of viewers. On one side, the frames are lacquered white, and on the reverse side black. The motorized frames rotate between black and white sides. The achieved black-white contrast allows the display of geometric patterns and graphic signs. Therefore, in a well-lit space, the installation represents binary states: black and white, motion and stillness, open and closed. In the darkness, however, the structure changes character entirely. Each frame is illuminated with LED lights on its visible edges. The main and central frames are illuminated with white light, and the middle frames with red light. Each of the 375 frames is individually illuminated and controlled. The resulting display of complex patterns could be interpreted as an expression of the language of technology; of a spatial transposition of digital logic. The notion of a data framework is interpreted literally; the viewer is incorporated into the information's "architecture".

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Aether Architecture

PING GENIUS LOCI (PGL)

Ping is the most basic command in computer networking, acting as a kind of virtual greeting among computers. If a ping is sent from one computer to another and a reply is received, the two computers know they are able to communicate with one another. *Genius Loci* is a common term in architecture and is used to connote the spirit of the place: its poetic context or its cultural significance. *PGL* is an architectural installation that sets out to build a physical network with respect to this very context. *PGL* is a kind of garden of wireless analog pixels. The radio networked, solar powered, self-sustainable, intelligent pixels are organized in a 20 x 20 meter matrix. The pixels function in bright sunshine to interface with people walking within the grid, reacting to human movement. *PGL* is a platform in development with enormous future potential for interactive content.

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Today's designers are creating compelling atmospheres and interactive experiences by merging hardware and software with architecture and design.

A Touch of Code is a collection of this innovative work produced where virtual realms meet the real world and where dataflow confronts the human senses.

The book presents an international spectrum of interdisciplinary projects at the intersection of laboratory, trade show, and urban space that play with the new frontiers of perception, interaction, and staging created by current technology. These include brand and product presentations as well as thematic exhibits, architecture, art, and design.

The comprehensive spectrum of innovative spatial and interactive work in *A Touch of Code* reveals how technology is fundamentally changing and expanding strategies for the targeted use of architecture, art, communication, and design for the future.

LOOK



Brings together a broad spectrum of work that has aspects of sight and vision as its main source of inspiration. The visually tantalizing projects—including installations, illuminations, projections, media facades, and dynamic sculptures—will captivate your eyes. Features work by Atelier Markgraph, Moritz Walde-meyer, Troika, and others.

ENGAGE



Assembles projects by creative minds working from the fringes of art, design, science, and architecture with emphasis on the audience's full-body involvement. These examples succeed in creating inspiring platforms for larger-scale public participation. Features work by Dan Roose-gaarde, Rafael Lozano-Hemmer, Random Inter-national, United Visual Artists, and others.

TOUCH



Focuses on playfully intuitive and tactile projects. Ranging from low-tech approaches to state-of-the-art computing, all of the examples included here foster the interaction with digital information via the physical environment. Features work by ART+COM, Sifteo co-founder David Merrill and Jeevan Kalnithi, Yuri Suzuki, and others.

INTERVENE



Focuses on the tools of creative emancipation and open-source technology. Arising from an urban interventions context, these projects deliberately dissolve the distinction between participant and audience, thus opening up entirely new terrains of creative engagement. Features work by Carlos J. Gómez de Liarena, Graf-fiti Research Lab, KMA, OMA International, Sonice Development, and others.

EXPLORE



Presents experimental projects that investigate the interplay between environment, users, and machines in a number of surprising and inspiring ways. Linking art, science, and design, they address the curiosity of their audiences and take them on a joyful journey of discovery. Features work by David Bowen, Julius von Bismarck, The Green Eyl, and others.

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