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LAB[AU]

Staff: 4
Members: Manuel Abendroth, Jérôme Decock, Alexandre Plennevaux, Els Vemang
Founded: 1997
Operates: Worldwide

AWARDS

Prix Mediatine, 2007
Arcadi, best information architect, 2002
Grand Prix International Vidéo Danse C.I.D/UNESCO, 2002
Culture 2002 Award
Tech-Art prize, Vlaamse Ingenieurs Kamer, 1999

KEY PROJECTS

Touch, Brussels/Belgium, 2007
EOD02, Brussels/Belgium, 2006
12m4s, Leuven/Belgium, 2006
Man in e.Space, 2006
Point and line to plane, Leuven /Belgium, 2005
the 10th sphere, Brussels/Belgium, 2003
space navigable music, 2001-2007
Cityscapes, Graz/Austria, 2001
i.skin, Avignon/France, 2000
RGB Pavilion, Cannes/France, 2000
Gamevillage, Lyon/France, 1999
Lightscapes, the Heysel, Brussels/Belgium, 1999

KEY CLIENTS

Electrabel/Sibelgas
PSA, Peugeot Citroen
Infogrames
Unilever
Casinos Austria
Dexia

PROFILE

Established in 1997, LAb[au]: laboratory for architecture and urbanism has developed a transdisciplinary and collaborative approach to its work, based on various artistic, scientific and theoretical methods for examining the transformation of architecture and spatiotemporal structures. Involved mainly in the creation of art, audiovisual performances and scenographies, LAb[au] develops its own software and interfaces. The members of the LAb[au] team – Manuel Abendroth, Jerome Decock, Alexandre Plennevaux and Els Vemang – also run MediaRuimte, a digital-design gallery in central Brussels that opened in 2003.

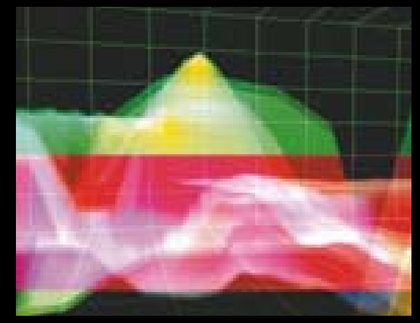
01

01 THIS 75 M² PAVILION CONCEIVED TO BE DISPLAYED DURING THE 'FESTIVAL INTERNATIONAL DU FILM DE CANNES'. IN ADDITION TO BE THE MAIN ENTRANCE AND A TICKET DESK, THE PAVILION WAS INTENDED TO HOST AN EXHIBITION OF EXPERIMENTAL CINEMA.

02 '12M4S' IS BASED ON A SPACE OF 12 METERS AND A TIME OF 4 SECONDS, CORRESPONDING TO A HUMAN WALKING AT ORDINARY SPEED. IN THIS SPACE-TIME CONTINUUM, HUMAN MOVEMENTS ARE TRACKED TO GENERATE A VISUAL AND SONIC SCAPE IN REAL-TIME.

03 URBAN ENLIGHTENING STUDY FOR THE HEIZEL PLATEAU IN BRUSSELS.

02



03

THE FAÇADE OF THE DEXIA TOWER, WITH ITS 4200 WINDOWS, WAS USED AS A GIANT SCREEN.

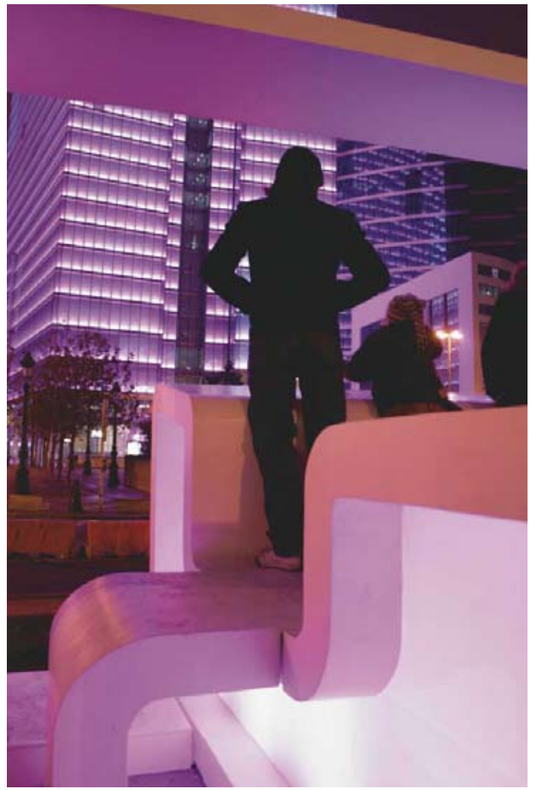
Dexia Tower/Touch Brussels, Belgium

CLIENT
DEXIA
ARCHITECTS
PHILIPPE SAMYN & PARTNERS, M & J.M. JASPERS, J. EYERS & PARTNERS
ARTIST
LAB[AU]
LIGHTING ENGINEER
BARBARA HEDIGER
DATE OF COMPLETION
DECEMBER 2006

PHOTOGRAPHER
LAB[AU]

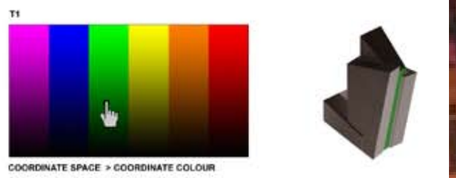
LAb[au] proposed the public finance company Dexia to use the latter's main office – the 145-m-high Dexia Tower in Brussels – as a canvas for a seasonal installation that would encourage creativity and social activity among the general public. The Belgian digital-design and art lab set up an urban installation allowing users to interact in real time with the entire light skin covering the tower – a lighting infrastructure conceived by Barbara Hediger. The result was Touch.
Instead of approaching the exterior walls as flat surfaces on which to display pre-rendered video loops, LAb[au] used the architectural characteristics of the tower and its urban context as the basis for the project. The orientation, volume and scale of the building became parameters for setting up a spatial and temporal concept, allowing people to engage directly with the tower. Participants were invited to create a composition by choosing colours to light up the windows, which were equipped with individually controlled RGB LED bars attached to the window frames. 'While working on this urban interactive installation, our main focus was to create a relationship between the user and the tower – and to transform the user's perception of the tower as a publicity screen into an experience related to urban art in the form of a lighting project,' explains Manuel Abendroth of LAb[au]. 'The challenge was to integrate participation and identification into a project that would encourage the user to get involved.'
A control station positioned at the foot of the building from late December 2006 to mid-January 2007 encouraged passers-by to interact either individually or collectively with the visual display through the use of a multi-touch screen. Both static (touch) and dynamic (gesture) input was recognized and used to generate an elementary graphic language of points, lines and planes, which combined with physical movement to determine the colours of the façade. Participants entered the coordinates needed to define the background colour and used directional controls (positive or negative) to select the colour of graphic elements (black or white). Having completed a composition, the 'artist' could capture it in a photo of the tower taken by a camera located some distance away and mail the photo in the form of an electronic postcard. Photographs were also uploaded onto the project website, where they could be found, forwarded by email or printed in PDF format and used as Christmas or New Year's greetings. 'The ephemeral work of art made in this manner,' says Abendroth, 'can be recorded and serve as the basis of a personalized greeting card.'
As the largest installation ever controlled by DMX cables, Touch required 25 km of cable, which ran from the base of the building through to the 39th floor, connecting a circuit of 4200 RGB LED bars for the windows. There were also 22 custom fittings in monochromatic blue light and 40 3W LEDs for the columns. Illuminating the perimeter of the main entrance and front doors were 60 Ath-Luxor custom LED bars of different lengths. A central computer on the 9th floor controlled each level individually, allowing colours on the different floors to be isolated or merged with colours on other floors, depending on the size of the desired pattern. Following the overall concept of the installation, the design of the interactive control station was based on the idea of folding and unfolding space. Thanks to the process involved, the spatial design could be combined with the time-based parameters inherent to the dynamic and sequential concept of the illumination of the tower itself. Divided into three parts, the sculptural station – located in front of the Dexia Tower on Brussels' north-south axis – framed part of the city skyline through a sequence of lustrous white arches, which the designers refer to as 'folds'. 'Each of the three folds that constituted the control station was related to a specific function, while following the principles of the entire design,' says Abendroth of a project in which light was used to convey 'information on an urban and artistic level'.
The first fold allowed people to interact on a multi-touch screen, and the second displayed user interaction – finger drawing – on a projection screen. Establishing a direct relationship with the luminous display on the tower, the screen also engaged those outside the control station, providing a visual narrative of audience participation and enticing passers-by.
Together, variables such as width (finger, hand, arm), direction (horizontal, vertical, diagonal), duration (introducing growth) and speed (introducing velocity and weight) used architecture to create a dynamic, abstract presentation composed of graphic elements. Able to process multiple-input data, the installation explored individual and collective experiences, transforming the Dexia Tower into a work of art in which software became the architecture of the space.

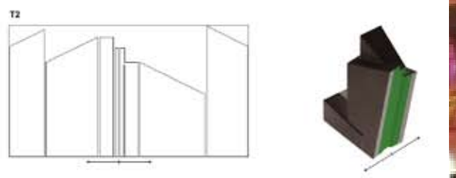
25 KM OF CABLE WAS USED TO CONNECT A CIRCUIT OF 4200 RGB LED BARS FOR THE WINDOWS



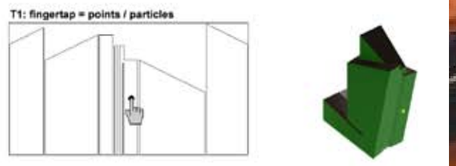
A CONTROL STATION POSITIONED AT THE FOOT OF THE BUILDING ENCOURAGED PASSERS-BY TO INTERACT WITH THE VISUAL DISPLAY (THE TOWER) THROUGH THE USE OF A MULTI-TOUCH SCREEN.

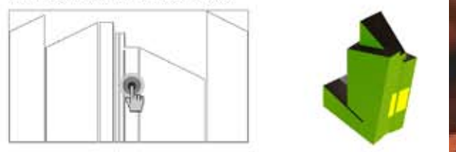
COLOURS OF DIFFERENT FLOORS COULD BE ISOLATED OR MERGED WITH COLOURS ON OTHER FLOORS.

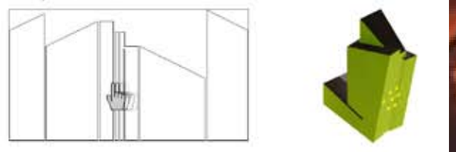


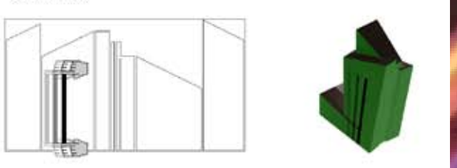


FROM GESTURE TO ARCHITECTURE









FROM GESTURE TO ARCHITECTURE

HAVING COMPLETED A COMPOSITION, THE 'USER' COULD CAPTURE A SNAPSHOT OF THE SCENE TAKEN BY A CAMERA LOCATED SOME DISTANCE AWAY AND WHICH HE COULD MAIL FROM THE SPOT AS AN ELECTRONIC POSTCARD.

Participants were invited to create a composition by choosing colours to light up the windows, which are equipped with individually controlled RGB LED bars attached to the window frames