



LAb[au]  
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LAb[au] (= laboratory for architecture and urbanism) is an art studio found in 1997, based in Brussels, Belgium. The name merges a phonetic and a written meaning; that of the French / Dutch pronunciation 'labo' and that of the German word 'bau' referring to its projects' experimental approach (labo) and construct (bau).

The technological developments of the past fourty years have given rise to a major shift from the industrial to the post-industrial information society, where the unit of information, its processes and systems, increasingly define the notions of body, matter, space and time.

According to this technological progress, LAb|au| examines the transformation of architecture, art and design within a practice entitled 'MetaDeSIGN'. Metadesign (meta = information about information + design) displays the theme of space- and time constructs relative to information processes. It concerns the transposition of inFORMational processes in n-dimensional (visual, sonic, spatial,...) form.

MetaDeSIGN is characterised by the setting of systems, among which LAb[au] is today mainly active within the interactive, reactive and generative realm.

LAb[au]'s art is part of public and private art collections worldwide and has been exhibited in some of 's worlds most prestigious art venues, among which Kunst-Station Sankt Peter (Koln, 2010), Fondation Vasarely (Aix-en-Provence, 2010), Singapore Art Museum (Singapore, 2010), BOZAR (Brussels, 2009 + 2010), TENT. / Witte de With (Rotterdam, 2006), Centre Georges Pompidou (Paris, 2004 + 2005), New Museum (New York, 2003), Louvre (Paris, 2000),... and happenings worldwide among which Todaysart (The Hague, 2008) Club|Transmediale (Berlin, 2007), Sonar (Barcelona, 2004),... and many more.

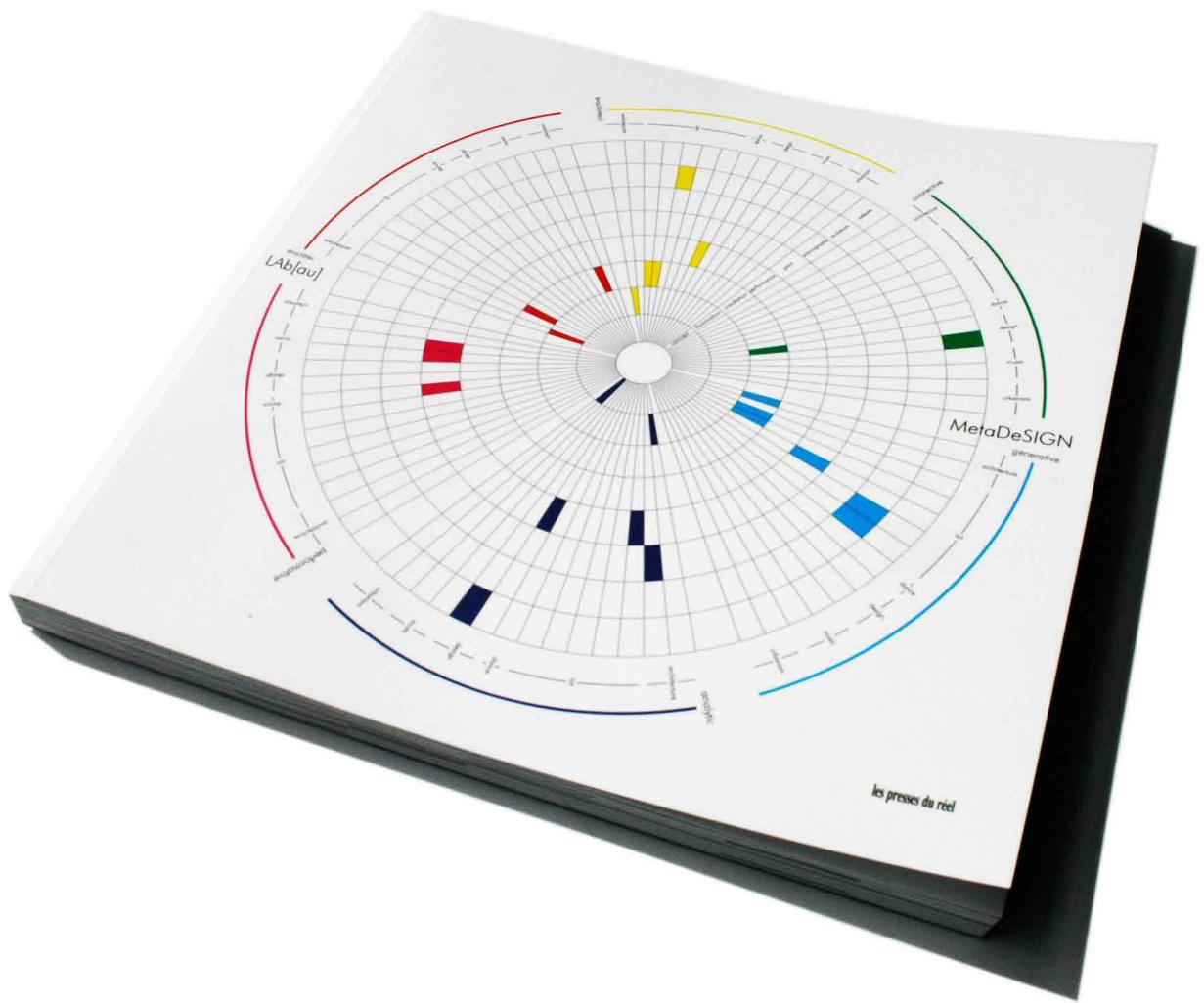
The critically acclaimed studio was one of 2009's nominees for the renowned contemporary art prize 'Young Belgian Painters Award' and one of 2010's nominees for the legendary computer arts concelebration 'Ars Electronica'.

Their work has numerously been featured in press worldwide and their recent monography 'MetaDeSIGN' is published by 'Les Presses du Reel'.

## LAb[au]

<http://www.lab-au.com>

Manuel Abendroth  
Jerome Decock  
Els Vermang



## MetaDeSIGN

2010

ISBN: 978-2-84066-404-8

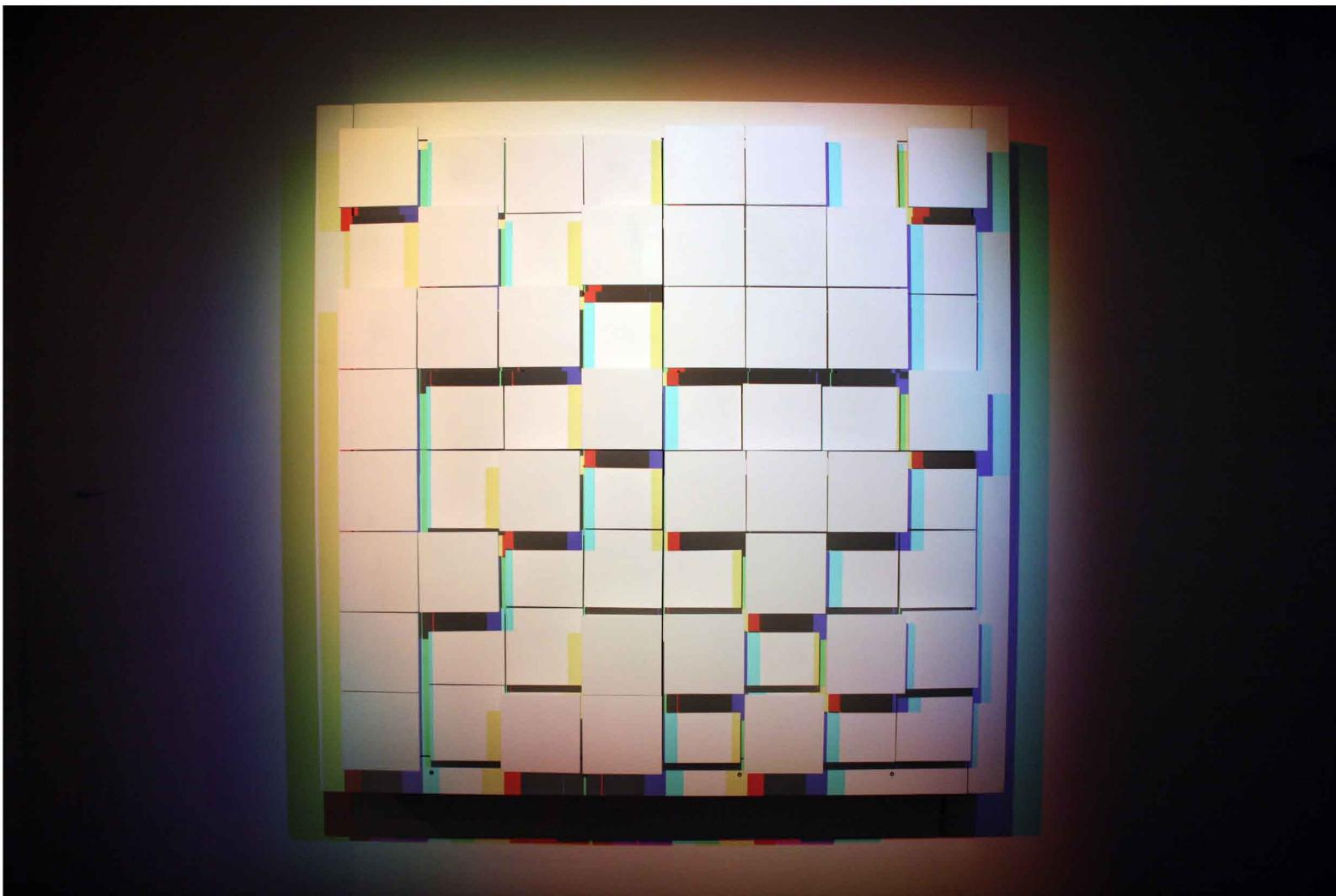
Monografie van LAb[au] met een selectie van projecten gecreëerd tussen 1997 en 2010

224 bladzijden  
353 kleurillustraties

Engels - Frans

adobe photoshop  
microsoft word

b: 0.276 m  
l: 0.276 m



## m0za1que 4x4x4

2013

<http://lab-au.com/projects/m0za1que-installation>

Generative kinetic light installation

64 tiles  
64 linear motors  
3 rgb-spots  
4 microprocessors

basic  
c

h: 2 m  
w: 2 m



## m0sa1c

2012

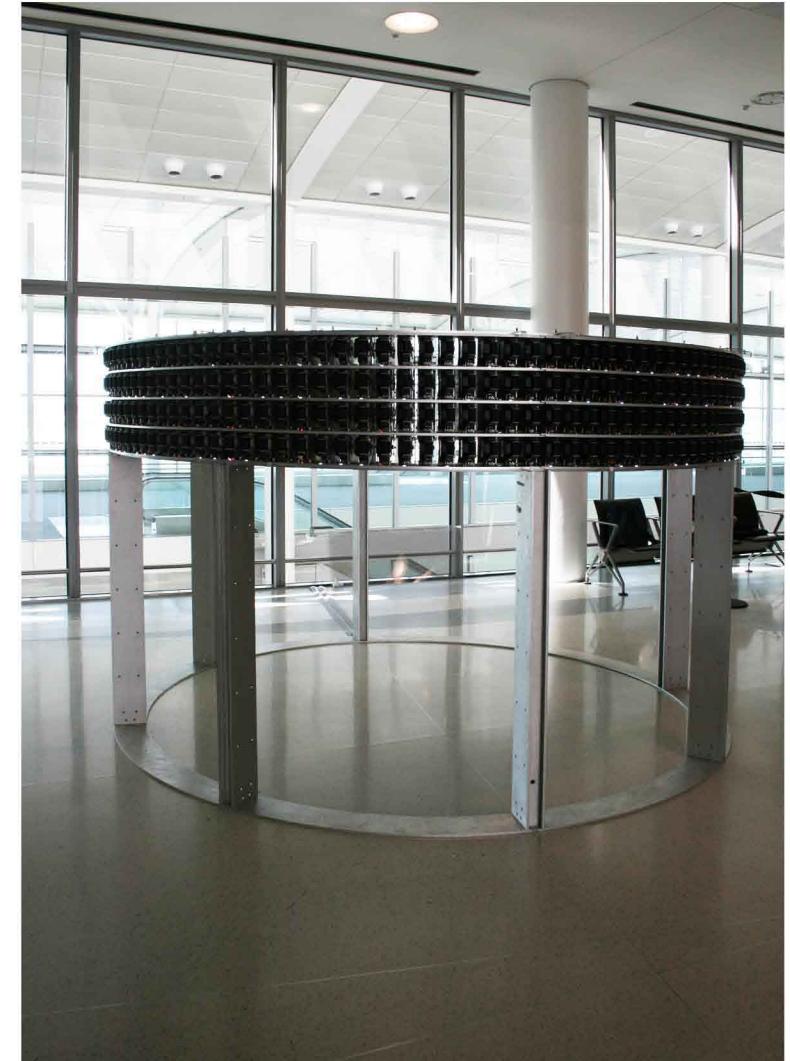
<http://lab-au.com/projects/m0za1que-annecy>

Generative kinetic light installation  
Maison Mecatronique, Annecy-le-Vieux, France  
Permanent Installation

390 tiles  
390 linear motors  
3 rgb-spots  
15 microprocessors  
1 computer

basic  
c

h: 6.2 m  
w: 3.4 m



## Signal To Noise

2012

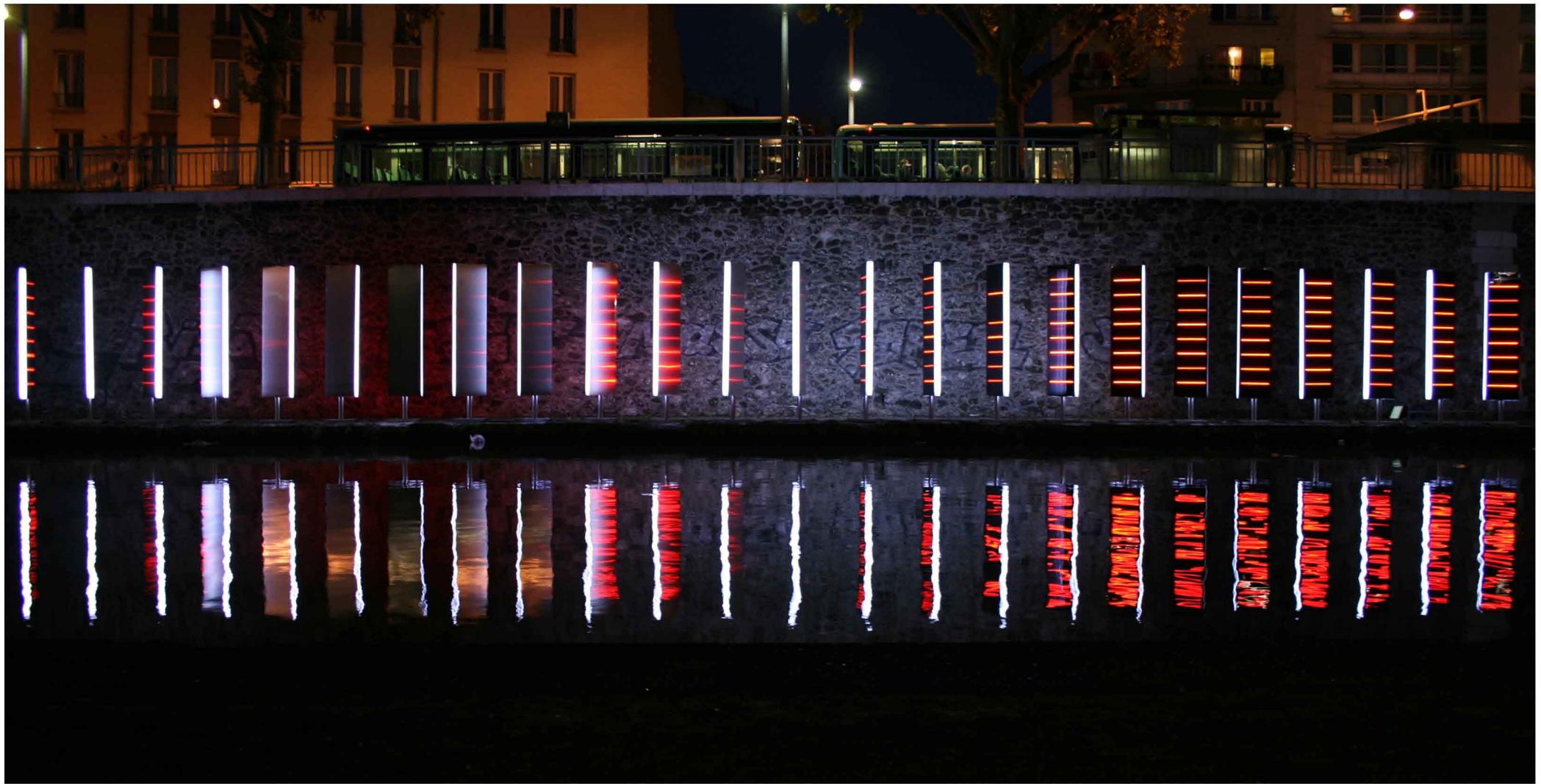
<http://lab-au.com/projects/signaltonoise>

Generative kinetic sculpture

512 split-flaps  
512 custom made driver boards  
128 custom made pcbs with 2048 LEDs  
circular aluminium structure  
1 computer

basic  
c

h: 1.80 m  
ø: 3.4 m



## Binary Waves

2008

<http://lab-au.com/projects/binary-waves>

urban reactive kinetic light installation

40 networked panels  
aluminium  
mirror  
LEDs  
40 stepper motors  
4 PIR sensors  
1 spectrum analyser  
2 computers

basic  
spin  
c++

panel:  
h: 3 m  
w: 0.60 m  
d: 0.12 m

installation:  
variable





## Framework f5x5x5

2007-2009

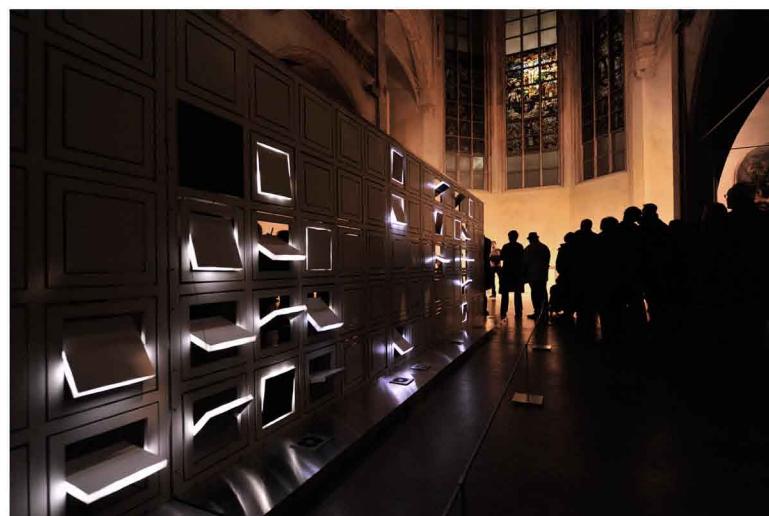
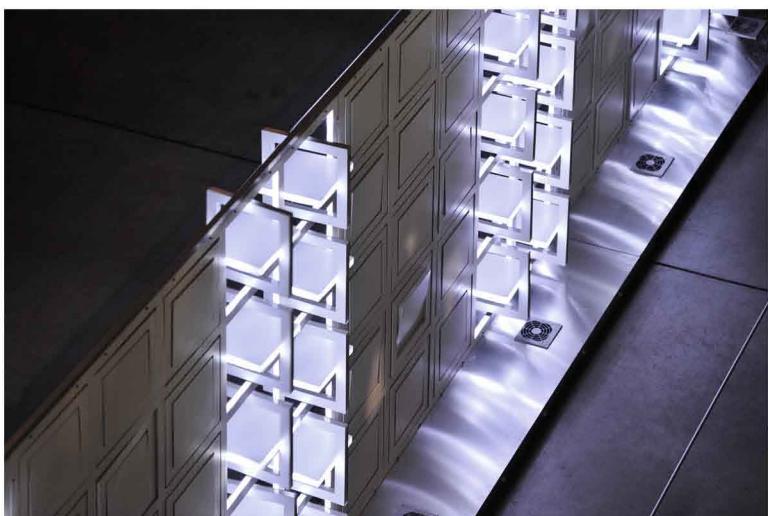
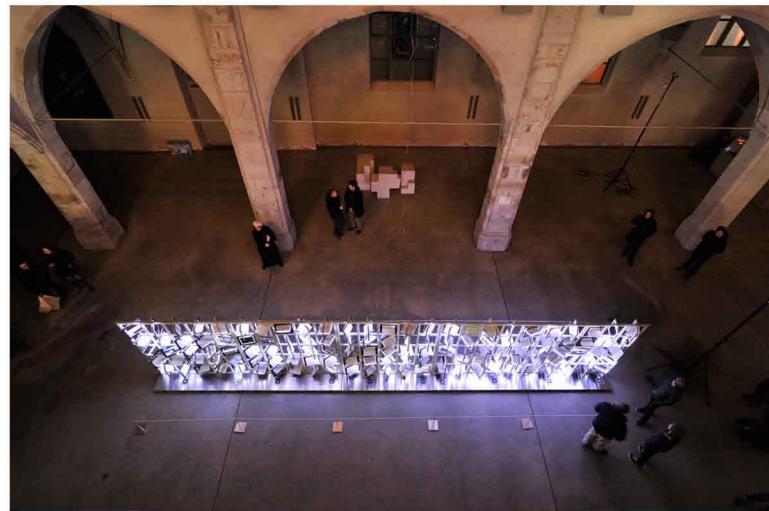
<http://lab-au.com/projects/f5x5x5>

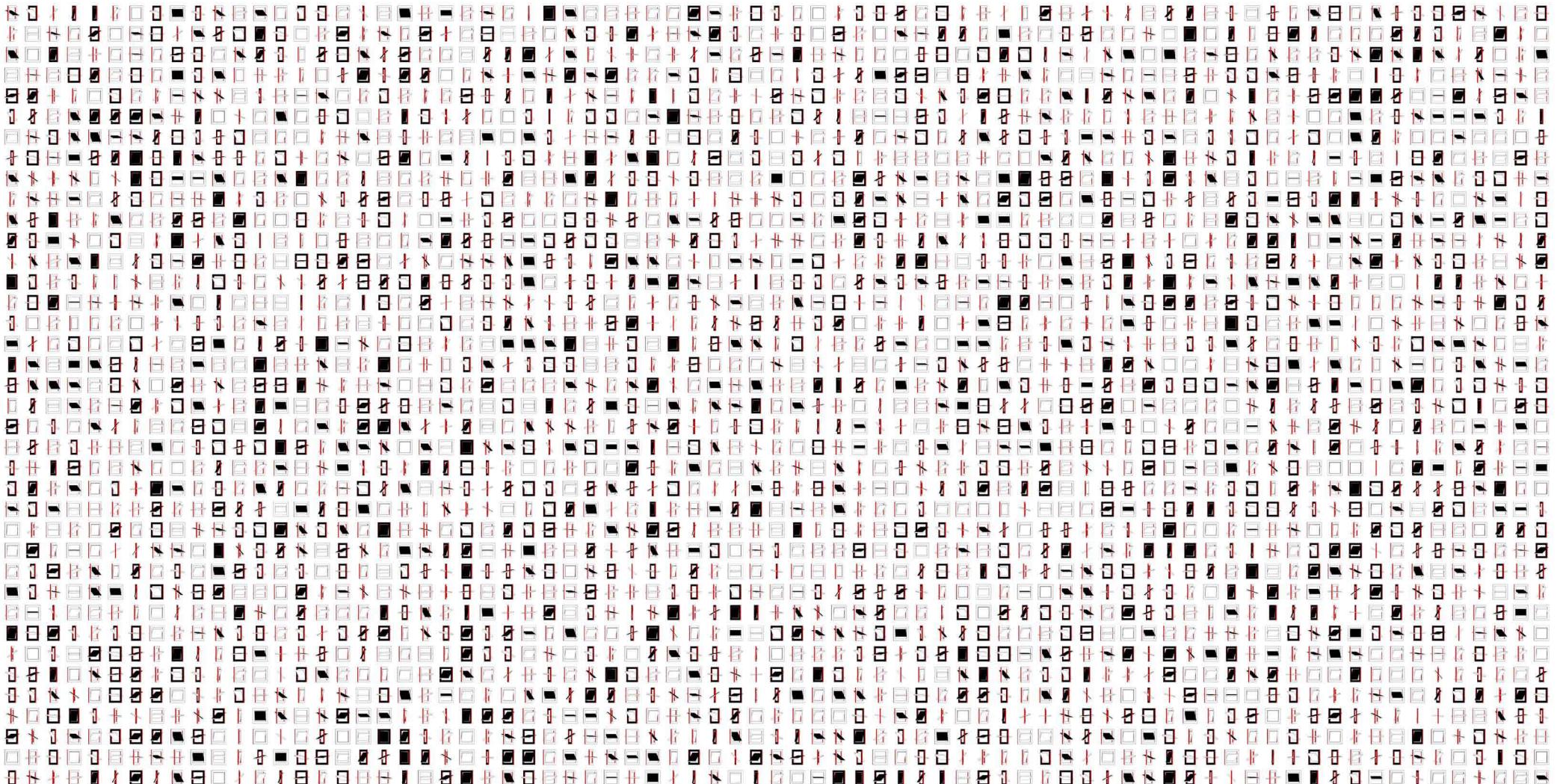
interactive kinetic light installation

5 networked computers  
6750 LEDs  
5 km ribbon cable  
700 m aluminium profiles  
Plexiglas  
250 servomotors  
50 infrared sensors

basic  
c++

l: 10.2 m  
w: 0.85 m  
h: 2.15 m





## Framework notations

2009

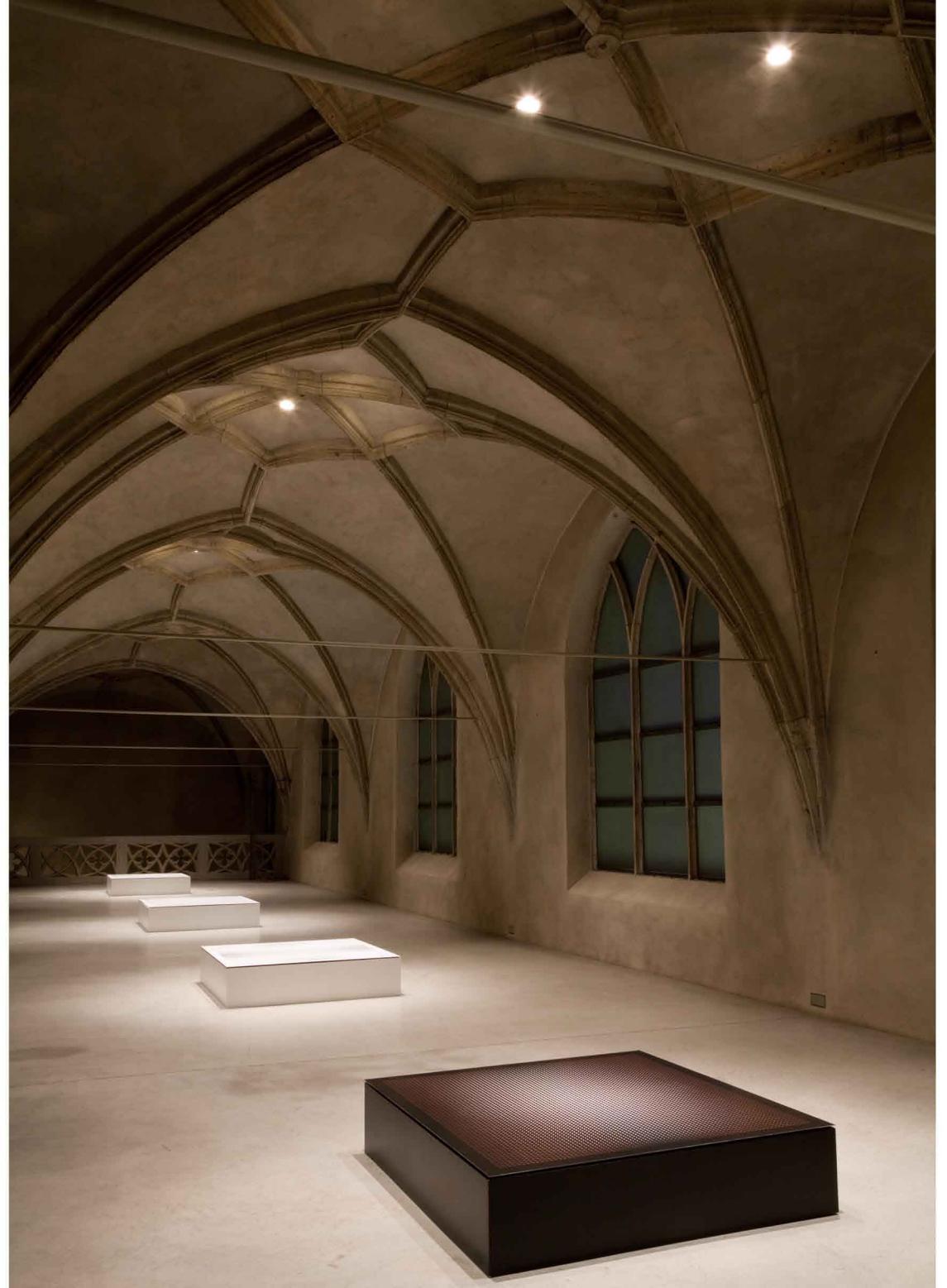
<http://lab-au.com/projects/framework-notations>

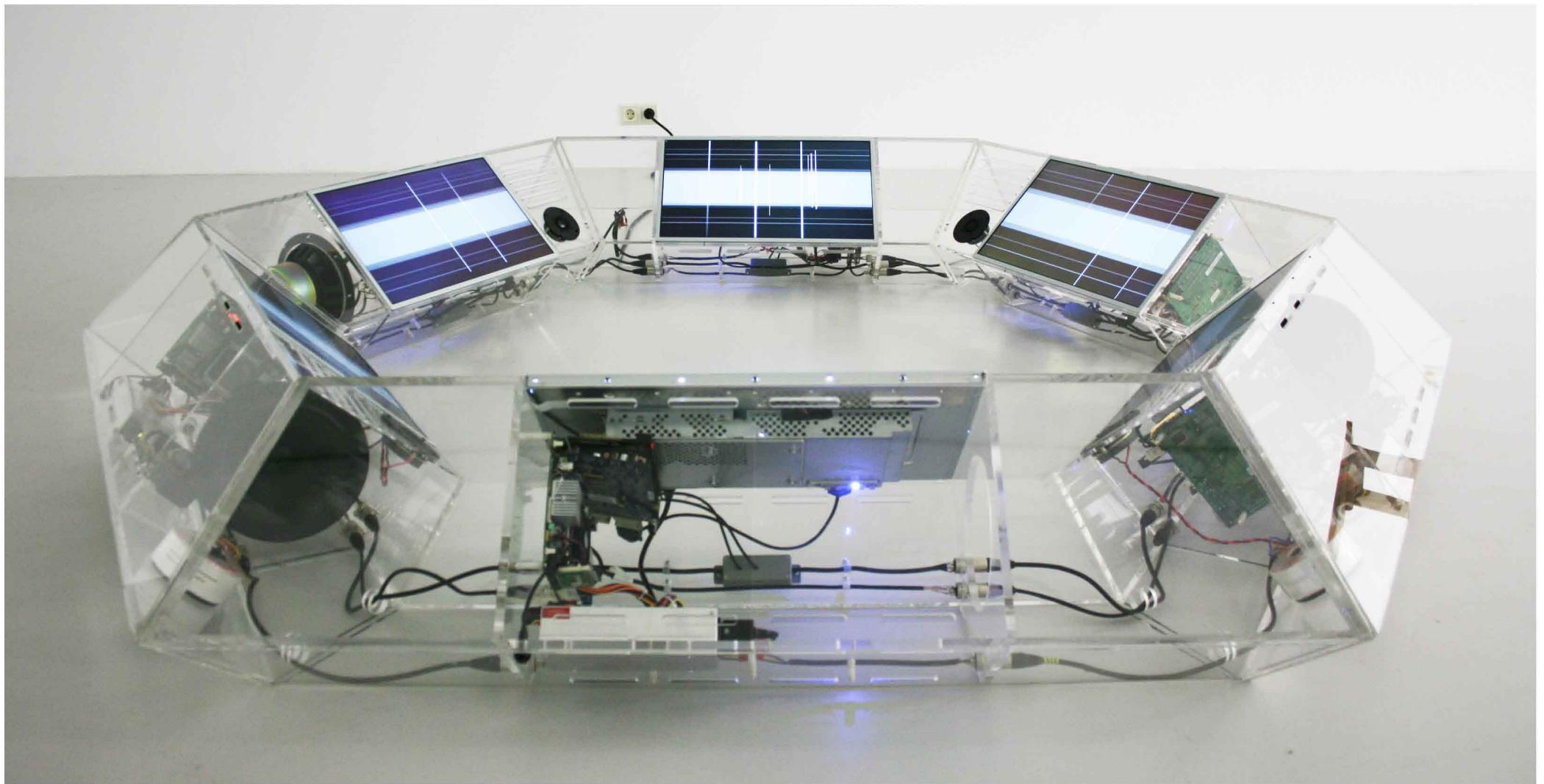
computer-generated prints; time-based notations of the sculpture 'Framework f5x5x5'

inkjet on dibond

basic

l: 1.4 m  
w: 1.4 m





## Particle Synthesis

2010

<http://lab-au.com/projects/particle-synthesis-installation>

generative music installation using custom 3D real-time engine relating particle rendering and granular synthesis in a 360° audiovisual construct

6 networked computers  
6 screens  
4 speakers  
Plexiglas

basic

ø: 3 m  
h: 0.45 m



**Tessel**

2010

<http://lab-au.com/projects/tessel>

kinetic sound installation  
in collaboration with David Letellier

12 motors  
12 encoders  
1 computer  
2 car-amplifiers  
8 sound transducers  
3 microcontroller boards  
dibond  
aluminium

basic  
c  
spin  
assembler

d: 4 m  
w: 2 m



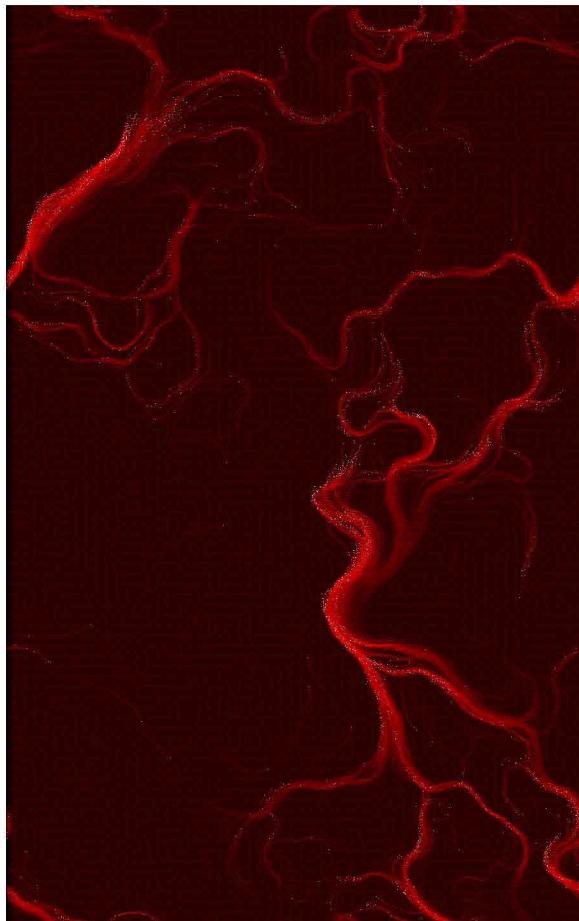
## Consoles

generative art installation

4 networked computers  
4 TFT screens  
4 compact flash cards  
Plexiglas

basic  
c++

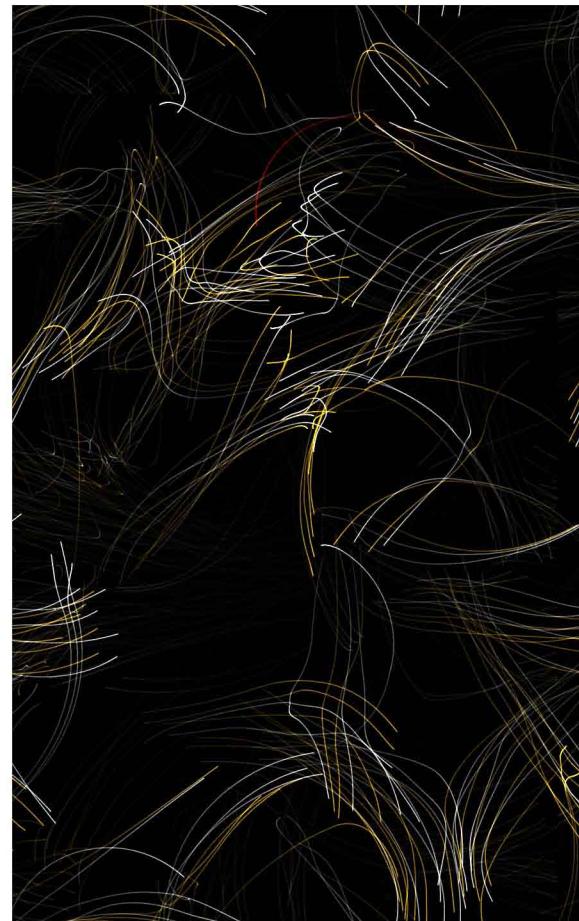
w: 0.29 m  
d: 0.32 m  
h: 1.72 m



**PixFlow #2**

2007

<http://lab-au.com/projects/pixflow-art-console>



**SwarmDots**

2009

<http://lab-au.com/projects/swarmdot>



**Particle Springs**

2011

<http://lab-au.com/projects/particle-springs>





17h00m00s

17h00m10s

17h00m46s

19h20m48s

23h15m30s

1h30m14s

1h30m26s

1h30m42s

19h20m48s

21h40m2s

21h40m42s

23h15m14s

3h45m8s

3h45m28s

5h00m14s

5h00m43s



## Chrono

2007 - 2009

<http://lab-au.com/projects/chrono-tower>  
<http://lab-au.com/projects/chrono-prints>

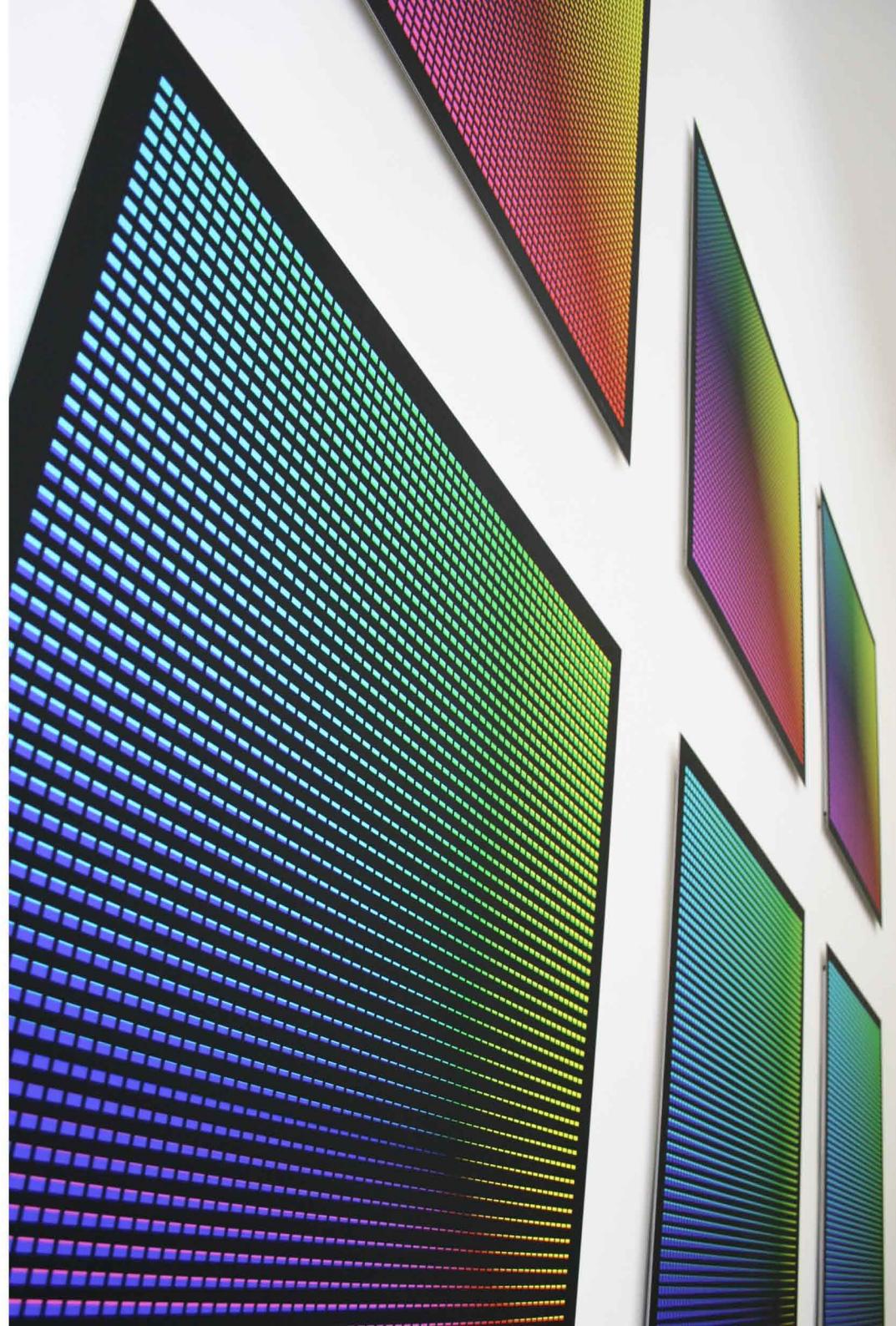
light artwork and computer-generated prints

302 400 LEDs  
1 computers

24 digital etches on dibond  
12 Nintendo DS Lite  
vinyl code

basic  
c++

w: 1.10 m  
d: 1.10 m





## Touch

2006

<http://lab-au.com/projects/touch>

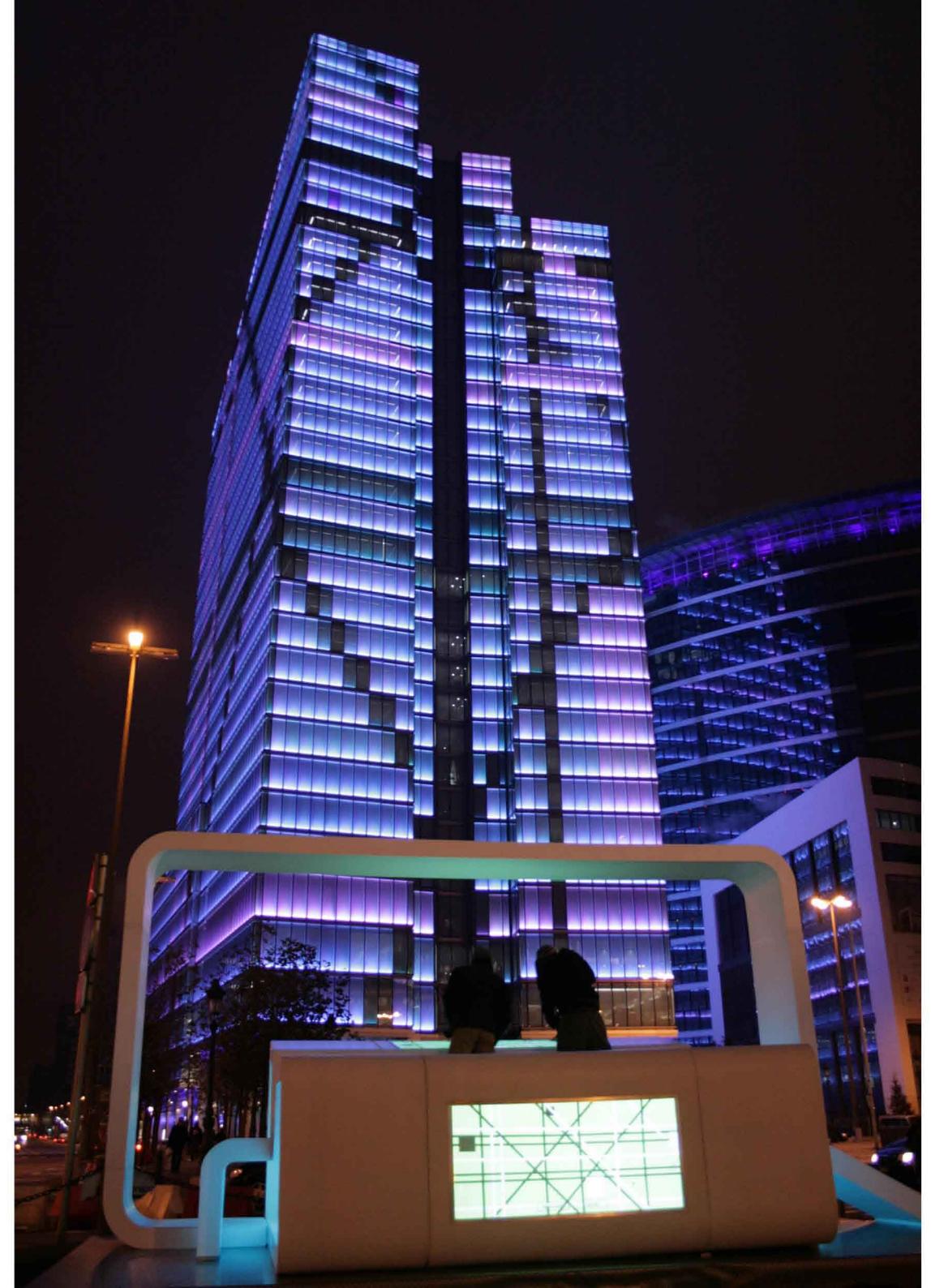
urban interactive light installation

302 400 LEDs  
3 computers  
1 multi touch screen  
3 cameras  
1 projector

basic  
c++  
javascript / php

media facade:  
4400 m<sup>2</sup>

pavilion:  
w: 8 m  
d: 3.6 m  
h: 3.2 m



## Select biography

### Coming up

10e-15, permanent artwork in public space for **Temis Science, Besançon**, France.  
flux, permanent artwork in public space for **Union Station, Toronto**, Canada.  
silo.scope, permanent artwork in public space for **Vitry-sur-Seine, Paris**, France.

### Exhibitions

- [2013] // 'PixFlow #2' : group-exhibition at **Biennale di Venezia**, Venice [ it ]. 30.05 > 20.09.13
- [2012] // 'Particle Springs' : group-exhibition at **Seoul Museum of Art**, Seoul [ kr ]. 04 > 23.12.12
- [2012] // 'S/N' : **Pearson International Airport**, Toronto [ ca ]. 08.06.12 > 30.06.12
- [2011] // 'f553' : **Aubette**, Strassbourg [ fr ]. 11.02 > 20.02
- [2010] // 'Chrono.prints' + 'f555 prototype + notations' + 'Binary Waves notations' : **Ludwig Forum**, Aachen [ de ]. 12.09 > 14.11
- [2010] // 'Binary Waves' + 'f552' : group-exhibition at **Singapore Art Museum**, Singapore [ sgp ]. 16.09 > 26.09.
- [2010] // 'f555' + 'f555 notations' + 'Chrono.prints' + 'Particle Synthesis' + 'PixFlow#2' + 'SwarmDots' : group-exhibition at **Fondation Vasarely**, Aix-en-Provence [ fr ]. 02.06 > 11.07
- [2010] // 'm0t1v' : solo-exhibition at **Kunst-Station Sankt Peter**, Köln [ de ]. 08.01 - 12.02
- [2009] // 'Young Belgian Painters Award' : group-exhibition at **BOZAR**, Brussels [ be ]. 24.06 > 13.09
- [2008] // 'Binary Waves' : **Quais de Saint-Denis**, Art Grandeur Nature Biennale, Paris [ fr ]. 18.09 > 19.10
- [2008] // 'PixFlow #2' : Emocao Art.ificial, **Itau**, São Paulo [ br ]. 1.06 > 14.09
- [2007] // 'Touch', 'Who's afraid of Red, Green and Blue' and 'spectr[a]um', **Rogier Tower**, Brussels [ be ]. 26.12.06 > 15.12.08
- [2006] // '12m4s' + 'EOD02' : **Pierre Bergé & associés**, Brussels [ be ]. 08.09 - 17.09
- [2006] // 'Liquid space' : **TENT. / Witte de With**, Rotterdam [ nl ]. 31.08 - 22.09
- [2006] // '12m4s': **STUK** Kunstencentrum, Leuven [ be ]. 13 - 18.02
- [2003] // 'Polygone Den[city]' : **New Museum**, New York [ us ]. 23.01
- [2002] // 'electroscape 001' : Art Gallery **Siggraph**, San Antonio [ us ]. 22.07 - 26.07
- [2001] // 'fictional sPACE' : Sony Pavilion, **Cannes** film festival, Cannes [ fr ]. 09.05 - 20.05
- [2000] // 'i-skin, 01+02' : **Louvre**, Paris [ fr ]. 10.10 - 29.10

### Performances, workshops & conferences

- [2012] // 'Dynamic Architecture' : **Strelka Institute**, Moscow [ ru ]. 19.07 > 23.07.13
- [2012] // 'System Art' : **Casino Luxembourg / Forum d'Art contemporain**, Luxembourg [ l ]. 04.12
- [2012] // 'System Art' : **Resonate**, Dom Omladine, Belgrade [ srb ]. 17.03
- [2011] // 'System Art' : **The Creators Project**, Gaite Lyrique, Paris [ fr ]. 11.06
- [2009] // 'Interactive environments' : **Hyperbody Research Group**, TU Delft, The Netherlands. [ nl ]. 30.11 - 02.12
- [2007] // 'MetaDeSIGN' : **Urban Screens**, Manchester [ gb ]. 11.10
- [2007] // 'MetaDeSIGN' : **Central Saint Martins**, London [ gb ]. 12.09
- [2007] // 'Liquid Space' : Ballhaus Naunynstrasse, **Club|Transmediale**, Berlin [ de ]. 23.01 - 04.02
- [2006] // 'Man in e.Space' : **Elektra**, Usine C, Montreal [ ca ]. 09 - 10.05
- [2005] // 'Man in e.Space.mov' : **Centre Georges Pompidou**, Paris [ fr ]. 29.05
- [2004] // 'MetaDeSIGN' : **SONAR**, Barcelona [ es ]. 17.06 - 20.06
- [2003] // 'EN3+4jeuX<sup>3</sup>' : Urban Lab, **Bauhaus Dessau** [ de ]. 11 - 12.10
- [2003] // 'Liquid Space 01' : Resfest + **Nabi Art Center**, Seoul [ kr ]. November 2003
- [2003] // '10th sphere' : **Atomium Parc**, Brussels [ be ]. 31.05
- [2003] // 'sPACE, Navigable Music' : Center for New Media Culture **RIXC**, Riga [ lv ]. 08.05 - 11.05
- [2002] // 'sPACE, Navigable Music' : **ISEA 2002**, Nagoya [ jp ]. 27.10 - 31.10
- [2002] // 'EN3+4jeuX<sup>3</sup>' : **Villette Emergences**, Maison de la Villette, Paris [ fr ]. 25.09
- [2002] // 'sPACE, Navigable Music' : **OFFF**, Barcelona [ es ]. 21.03

### Awards

- [2011] // Nominee - **Qwartz**
- [2010] // Honorary Mention - **Ars Electronica**
- [2009] // Nominee - **Young Belgian Painters Award**

## **Lab[au] select bibliography**

### **Monographies**

'MetaDesign', Lab[au], Les preses du réel', 2010.  
[http://lab-au.com/medias/2010\\_metadesign---labau/](http://lab-au.com/medias/2010_metadesign---labau/)

### **Catalogues**

'm0t1f', Lab[au], Kunst-station Sankt Peter, 2010.  
[http://lab-au.com/medias/2010\\_m0t1f-catalogue/](http://lab-au.com/medias/2010_m0t1f-catalogue/)

'Liquid Space', Lab[au], 2004.  
<http://lab-au.com/projects/liquid-space-book/>

### **Books featuring articles + projects by Lab[au]**

'Light, Colour and Sound', Parramon Ediciones, 2010.  
ISBN: 9788434233645  
[http://lab-au.com/medias/2010\\_light-colour-and-sound/article\\_by\\_Lab\[au\]](http://lab-au.com/medias/2010_light-colour-and-sound/article_by_Lab[au])  
[http://lab-au.com/theory/article\\_light-systems-art](http://lab-au.com/theory/article_light-systems-art)

'Mediatecture', Springer Verlag, 2010.  
ISBN: ISBN: 978-3-7091-0299-2  
[http://lab-au.com/medias/2010\\_mEDIATECTURE/article\\_by\\_Lab\[au\]](http://lab-au.com/medias/2010_mEDIATECTURE/article_by_Lab[au])  
[http://lab-au.com/theory/article\\_algorithm-and-lig/#/theory/article\\_algorithm-and-lig/](http://lab-au.com/theory/article_algorithm-and-lig/#/theory/article_algorithm-and-lig/)

### **Books featuring projects by Lab[au]**

'Facades Design, Construction and Technology', Lara Menzel, Braun publishing AG, 2012.  
ISBN: 978-3-03768-110-7  
[http://lab-au.com/medias/2012\\_facades-design-construction---](http://lab-au.com/medias/2012_facades-design-construction---/)

'A touch of code', R. Klanten, S. Ehmann, V. Hanschke, Die Gestalten, 2011.  
ISBN: 978-3-89955-331-4  
[http://lab-au.com/medias/2011\\_interactive-installations](http://lab-au.com/medias/2011_interactive-installations)

'Bright', Clare Lowther & Sarah Schultz, Die Gestalten, 2008.  
ISBN: 978-3-89955-301-7  
[http://lab-au.com/medias/01-05-2008\\_bright/](http://lab-au.com/medias/01-05-2008_bright/)

'Space Craft', Lukas Feireiss & R.Klanten, Die Gesalten Verlag, 2007.  
ISBN: 978-3-89955-192-1  
[http://lab-au.com/medias/01-09-2007\\_space-craft](http://lab-au.com/medias/01-09-2007_space-craft)

### **Magazines featuring projects by Lab[au]**

Neshan – Iranian graphic design magazine, Issue 27, Spring 2012.  
[http://lab-au.com/medias/2012\\_neshan-magazine](http://lab-au.com/medias/2012_neshan-magazine)

Monitor – Italian design magazine. Issue 61, September 2010.  
[http://lab-au.com/medias/2010\\_monitor-magazine](http://lab-au.com/medias/2010_monitor-magazine)

C3p - Korean architecture, landscape & urbanism magazine. Issue 301, 2009.  
[http://lab-au.com/medias/2009\\_c3p/](http://lab-au.com/medias/2009_c3p/)

PLD – Chinese professional lighting design magazine. Issue 31, February 2009.  
[http://lab-au.com/medias/24-03-2009\\_pldchina/](http://lab-au.com/medias/24-03-2009_pldchina/)

Crawford – Greek lifestyle magazine. Issue 06, July 2008.  
[http://lab-au.com/medias/2010\\_mcd/#/medias/01-07-2008\\_crawford-magaz/](http://lab-au.com/medias/2010_mcd/#/medias/01-07-2008_crawford-magaz/)

Creative Review – British advertising, design and visual culture magazine, March 2008.  
[http://lab-au.com/medias/01-03-2008\\_creative-revie/](http://lab-au.com/medias/01-03-2008_creative-revie/)

Tasarim – Turkish visual arts magazine, Nr. 168, January-February 2007.  
[http://lab-au.com/medias/2007\\_tasarim-2007/](http://lab-au.com/medias/2007_tasarim-2007/)

### **Magazines featuring articles by Lab[au]**

L'arca - Italian design and visual communication magazine, 'E.motion Space', Issue 187, December 2003.  
[http://lab-au.com/theory/article\\_e.motional-space](http://lab-au.com/theory/article_e.motional-space)

L'arca - Italian design and visual communication magazine, Sonic Space, the shape of sound', Issue 181, May 2003.  
[http://lab-au.com/theory/article\\_soundscapes](http://lab-au.com/theory/article_soundscapes)

L'arca - Italian design and visual communication magazine, 'MetaDeSign, the setting of a discipline', Issue 178, February 2003.  
[http://lab-au.com/#/theory/article\\_metadesign-the-se/](http://lab-au.com/#/theory/article_metadesign-the-se/)

Lab[au] had during two years a column 'Space, time, Information' in the Belgian architecture Magazine A+.

### **Magazines featuring interviews with Lab[au]**

Gcolon – Korean Design Magazine, interview with Manuel Abendroth, Issue 65 – July 2012.  
[http://lab-au.com/medias/2012\\_gcolon](http://lab-au.com/medias/2012_gcolon)

Kwintessens – Belgian Design & Fashion Magazine, interview with Els Vermang, Issue 14 – October 2010.  
[http://lab-au.com/medias/2010\\_kwintessens](http://lab-au.com/medias/2010_kwintessens)

### **Magazines publishing monographic features about Lab[au]**

Concept – Korean architectural review, 11.03-12.03-01.04  
[http://lab-au.com/medias/2003\\_concept-2003-12](http://lab-au.com/medias/2003_concept-2003-12)