

Symmetry: Art and Science

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Sint-Lucas Brussels BELGIUM.*

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International Society for the
Interdisciplinary Study of Symmetry
(ISIS - Symmetry).**

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Symmetry: Art and Science

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SPECIAL ISSUE:

Papers presented at the
Mat@mium Euro-workshop,
a Regional Congress of ISIS-Symmetry,
supported by the European Commission.

Guest Editing:

Department of Architecture Sint-Lucas Brussels, BELGIUM.

Special Feature: TV-Brussels broadcast.

TV Brussels is the local TV-station in Brussels. Some sites are:

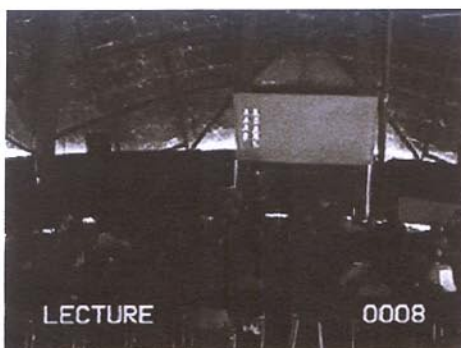
<http://www.tv-brussel.irisnet.be>

<http://tv-brussel.vgc.be>



This TV station broadcasted briefly on the Mathematics event, during its news broadcast

Below are some images from that broadcast.



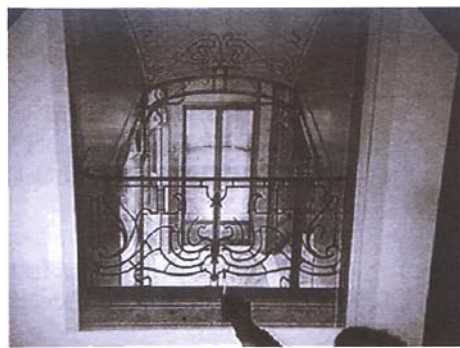
General view on the conference room, inside one of the spheres of the Atomium.



D. Nagy and T. Tarnai, attentively listening to the introduction.



D. Nagy during his introduction.



D. Nagy linked Horta to mathematics and the Belgian environment.



The project is based on a very simple principle.



One has a three-dimensional space where movement is free.



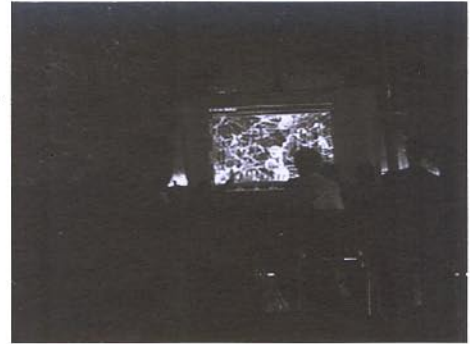
By moving through that space, you make music.



You can record your music and let your friends listen to it through the Internet.



LABau's presenter became part of his own show.



Spectators came in large numbers, and even had to sit on the ground

METADESIGN.

LAB[AU] LABORATORY FOR ARCHITECTURE AND URBANISM

Name: LAB[au] is Manuel Abendroth, Jérôme Decock, Alexandre Plennevaux.

Address: 19, Quai au Foin, B-1000 Brussels.

E-mail: lab-au@lab-au.com

Fields of interest: Architecture, urbanism, interfaces, new technologies of information and communication.

Awards: 2002, 'Culture2002' first prize in category Art for the project 'Worlddebt, you can count on it' <http://www.encorebruxelles.org/jk> 1999: 'Prix de la Brique Belge', 'Lightscape(s), displacement maps' - light plan study for the Heizel plateau <http://www.lab-au.com/lightsc> 'Tech-art prize', Vlaamse Ingenieurs Kamer.

Publications and/or Exhibitions: A+ magazine, nr. 168 April-May 2001 '<http://mind.space>', A+ magazine, nr. 172 Dec.2001/ Jan.2001 '<http://e.motional.space>', A+ magazine, nr. 173 Feb./March 2002 '<http://soundspace>'

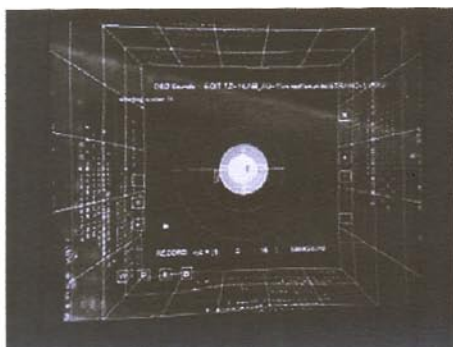
Keywords: Hypermedia – sonic space – soundscapes - inFORMation processes – connectivity - eSPACE CONSTRUCTIONs.

Abstract: *The transposition of inFORMation processes, transmission and computation, in textual, graphical bi-dimensional, three-dimensional and biomorphic (auto-generative; n-dimensional) forms explores new constructs proper to the electronic medium and outlines the spatial and semantic mutation provoked by technologies on the perception and conception of our environment. 'Metadesign' thus can be understood as a technology determinism that constitutes the main vector/thought in the concern of networked, information-based societies.*

1 METADESIGN

A technology is not an independent or alien object, it complements integrally our sensorial and cognitive system; as a medium, it conditions not only communication modes but also the way we perceive and conceive our environment.

The increasing implication of communication and information technologies in the process of production and knowledge leads to the fundamental re-thinking of the organization and definition of space. Technology based on the transmission and computation of information influences organization models (modes of production, work and knowledge) and affects the communication process (code, symbol) and the social relations as well as their spatialization. The affectation of traditional articulations



Next was LABbit's turn, with a musical performance inside the Atomium.



It took a lot of preparation to get everything installed in the 9 spheres building with its many stairs and escalators.



"What we demonstrate here tonight is called Space Navigable Music."



"Het is een project dat de link legt tussen architectuur, muziek en beelden."



"Het project was aanvankelijk bedoeld voor het internet"



"... maar het is uitgegroeid tot een live-act met muzikanten."

between information, space and time leads to the augmenting need to flatten the electronic realm into the concrete space.

If, as all communication systems, new technologies induce a transmission channel (signal-medium), a message (information) and a code, their property is to operate on any kind of information, even space, a reduction in a sequence of elementary information coded in a binary language, 0/1 or bit/second. However, contrary to its analogue counterparts within which information was materially fixed on a medium, the digital media celebrate the loss of inscription; it is the transposition of all stable "FORM" into transmissible and editable "inFORMation", processes.

As a consequence, the investigation in information space constructs shows the shift from traditional architecture into a metadesign, exploring new spatio-temporal structures as well as their representation practices such as architecture and urbanism. New technologies therefore perform a transformation on semantic and spatial structures (architecture) as much on the level of language (code, style) as on other levels such as social/spatial/economical/political relations. "e-SPACE CONSTRUCTIONs" display the theme of new space constructs relative to information processes, as the formalizations of communication and computation processes.

In relation to >INFORMATION< processes, metadesign is Information architecture, related to the structuring of information, its textual, graphical, spatial and biomorphic transcription and interfacing grounded on the inherent logics of computation and communication technology in networked societies.

Metadesign deals with the setting of new 'senses' as components of language, while improving, increasing our cognitive capacities and influencing in a major way our psychic state (consciousness), our emotional and social behavior and thus participate as much in the individual project as to the collective. Consequently, in the field of new medias, it is important to understand the relation, which is established between perception (the use of senses), recognition, comprehension and the representation (the extraction of sense/meaning), and the action that results from it (production of sense/meaning).

In this manner, information architecture deals with intelligible electronic constructs not only as modalities of perception and cognition, but as mental and psychic settings of behavior, ontological concerns, as well as the production of active and functional space settings, spaces of intervention within the constitution of e.SPACE CONSTRUCTIONs. Metadesign thus deals with information as programming and meta-inscription, versus as an output of interpretation - and data as objective reality versus information as narrative and simulation. 'Metadesign' displays the theme of new space constructs relative to information processes, as the formalizations of communication and computation processes according to social, semantic and spatial structures (architecture) as much on

the level of language (code, structure) in order to build up connectivity and effectiveness.

1.1 “Space, navigable music” project

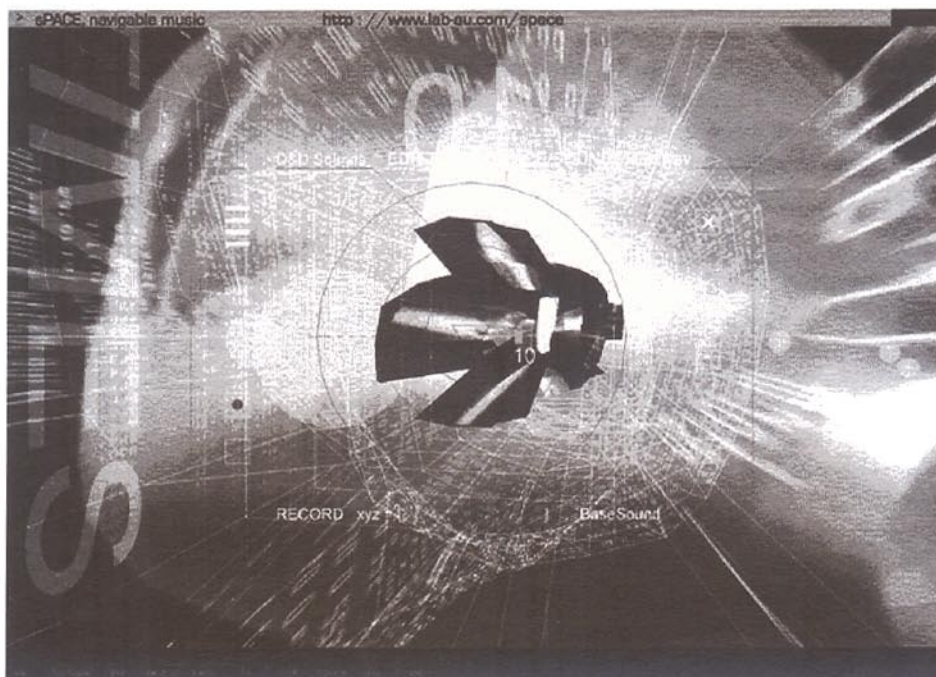


Figure 1: screen of the online project “space, navigable music” (<http://www.lab-au.com/space>).

‘sPACE, Navigable Music’ is an online project investigating the impact of IC technologies and particularly, 3D Real Time modeling languages (such as VRML) in the construct of space. According to the objectives of LAB[au] the project constitutes as much a space for theoretical research as a space of experimentation on the forms of interactions in networked systems exploring the possibilities of space settings in shared processes in order to build up connectivity.

In sPACE, navigable music, the object or architecture is generated in real time according to the position and movements of the user (mix color, mix image, mix sound). Operating on structural parameters, the integration (recombination) of spatial (x,y,z), temporal (t-movements) sonic (frequency, pitch) and generative image sequencing functions, each interaction by the user, displacement, transforms this visual and sonic environment. In addition, the recording of movements allows users to produce a traveling according to camera movements, montage and image sequencing. The

established relation between the spatial, visual and sonic formalization processes and the editable interactivity of users lead to an experience combining architecture, music and cinematic techniques through movement patterns. The 'Navigable Music' thus constitutes a space, in which the user experiments cyberspace by dropping sounds into space, mixing music throughout space and navigation, record its movements to produce an animation, a traveling in its sonic space architecture, a kinetic music clip.

As such, inFORMation processes, computation and communication through codes / language, VRML, thus describe programmatic relations between these different media fusing them into a hypermedia, which can be experimented through networks, extending the construct of space to the digital matrix (mixed reality), where the multi-user space even more enlarges this experience to shared and collaborative processes based on sound and e.space.

Year the Work was created: 2001

Project URL: <http://www.lab-au.com/space>

Technical requirements: VRML, Blaxxun 5 plug-in, Flash player.