

chrono.tower

dexia tower brussels

LAB[au], laboratory for architecture + urbanism
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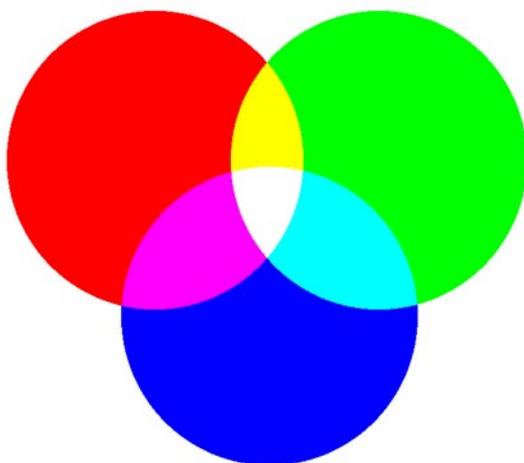
Year of conception: 2007
<http://www.lab-au.com/projects/chrono-tower>

Location:
Brussels' Dexia Tower
Date:
15.08.07 – 21.10.07
from sunset to sunrise

Commissioner: Dexia

hours

minutes



seconds



11h 52m 08s



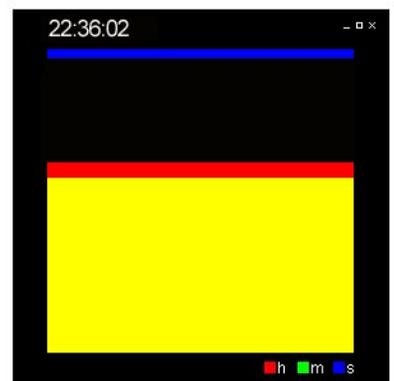
0-12 pm



hours

minutes

seconds



chrono.tower

chrono.cylce
edition: who's afraid of rgb

Year of conception: 2007

Location:
Brussels' Dexia Tower

Date:
15.08.07 – 21.10.07
from sunset to sunrise

Commissioner: Dexia www.dexia.com
Artists: LAB[au] www.lab-au.com

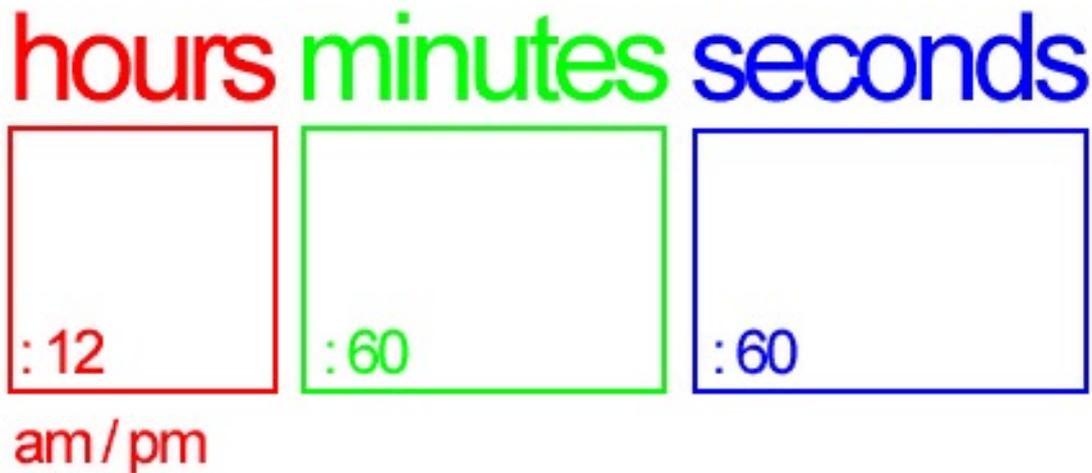
Copyright images: © Artists: LAB[au] - Architects: Philippe Samyn & Partners, M & J.M. Jaspers - J. Eyers & Partners -
Lighting engineer: Barbara Hediger
Meta.text

abstract:

The chrono'tower researches the parametric setting in between the basic units of time and the primary colours of light where hours=red, minutes=green and seconds=blue. The additive blending of the color surfaces leads to an increasing intensity of the enlightening as time progresses towards midnight giving the process a symbolic status in the set relation in between time and colour proper to the idea of the tower as an urban sign.

chrono.tower

The chrono.tower project is part of the 'Who's afraid of Red, Green and Blue' project cycle targeting a permanent enlightening for the Brussels Dexia Tower. It is the first project of a series entitled 'chrono' researching the parametric setting in between the basic units of time and the primary colours of light where hours=red, minutes=green and seconds=blue.



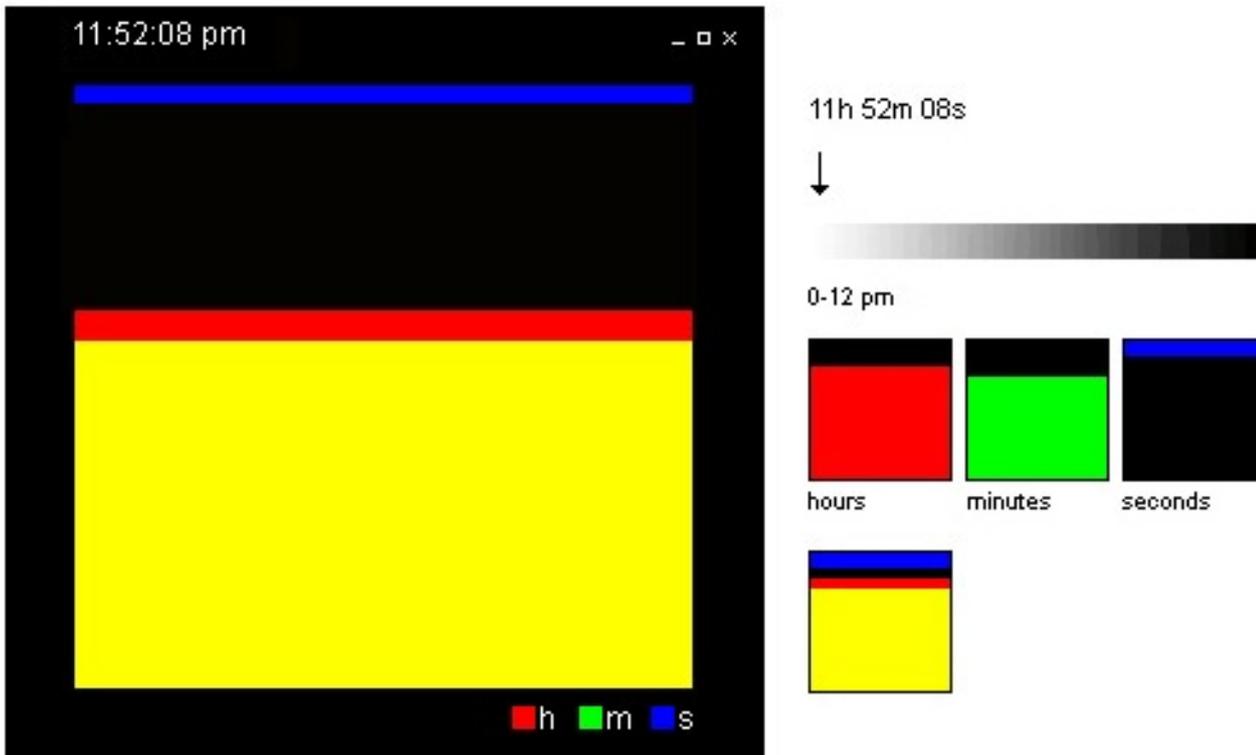
The chrono.tower project takes as starting point Brussels' 145 m high Dexia Tower, from which 4200 windows can be individually enlightened by RGB-led bars. Rather than considering the enlightened façades of the building as an immense screen-like display having a resolution of 45 x 140 pixels, the project expresses its very medium 'light' by using its RGB colour code to propose a light-architecture.

The RGB colour model is an additive model in which red, green, and blue are combined in various ways to reproduce other colours. The name of the model and the abbreviation 'RGB' come from its three primary colours; red, green, and blue.

The surface, in this case the facades of the building, are divided in sections of hours, minutes and seconds. Before midnight, hours and minutes have an upwards progression, while seconds have a downwards progression. Every second the blue surface is growing downwards, while every minute the green surface is growing upwards and, similarly, every hour that passes has the red surface grow upwards. This process is reversed after midnight and thus instead of adding colour, colours are subtracted. From sunset to sunrise, actual time is displayed on the tower through logic of additive blended colour-surfaces, constructing upwards towards midnight when reaching the ultimate combination of coloured light; white. A white pulse at midnight celebrates the new day, from which point light progressively "returns" to the sky.

The main idea of the proposal is to relate a conventional representation of time to light. Many architectural buildings have in their conception a strong relation to time, whether on the level of their orientation / implementation or on the level of displaying time in form of clocks to astrological calendars. Many of these buildings are public or collective monuments marked through these signs.

The proposal started with the idea to create a graphic light clock. This proposal may seem neutral at first, yet it expresses a notion shared by all humans within an artistic design. The problem of a light clock is that it would only be visible during the night and thus loses a lot of this shared meaning as a common readability, since the proposal introduces non common codes, of such a 'graphic clock' is difficult to achieve.



Therefore the proposition has been oriented to a time-based visual, graphic and dynamic system having its 'rules' based on seconds, minutes and hours. Seen from a 'light' point of view the time until midnight is the ending (getting darker = loose of light) of a day and the starting (getting brighter = gain of light) of another one. The proposal therefore evolved from the idea of a graphical clock to a system visualising the day /night relation, getting 'brighter' until midnight and getting darker progressively until the sunrise. From this shared comprehension the system would reverse the day/night relation (bringing back the light during the night) while celebrating the end of a day and the rise of a new day in form of light, a light which goes to the sky when the new days rise. At the end of the night the remaining enlightened top remains as a minimal sign visible on Brussels N-S and E-W axis (architectural / urban sign).

Furthermore, the concept of the project relating light to time, introduces the notion of circadian rhythm. A circadian rhythm is a roughly-24-hour cycle in the physiological processes of living beings, mostly modulated by external cues such as sunlight and temperature. A 'circadian distortion' encompasses the shift into the alternation of day and night:

' With the introduction of gas lighting and then electricity in the mid-19th century, our relation to astronomical temporal rhythms and the alternation of day and night started to undergo far-reaching changes. "Making day out of night", as Heidegger put it, is one of the major physical upheavals in the method of inhabiting, at once urban and domestic, which turns into another night into another day, at 1000 lux. The Internet and overall mobility have further speeded up this distortion of temporal rhythms. It is a permanent day that is unfurled today, like a continuous and immediate luminosity, all round the planet, spread, always and everywhere, by electric lighting and the light of screens. The earth has stopped revolving around its own axis and our body, removed from its Circadian biological rhythms is sleepless. (...) '

LAB[jau] proposes with the chrono.tower project a time-based artwork, according to logics of the RGB-code and the concept of circadian distortion, establishing a language proper to the tower and its urban context, a light sign.

Décosterd & Rahm, Distortions, Editions HYX, 2005.



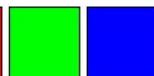
12h 00m 00s



midnight



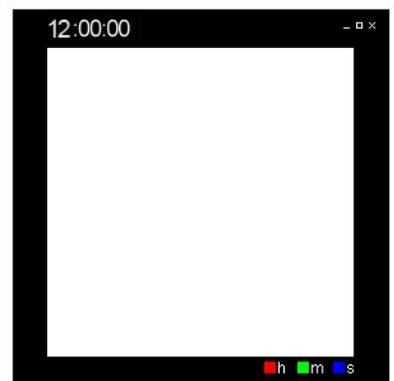
hours



minutes



seconds





00h 00m 00s

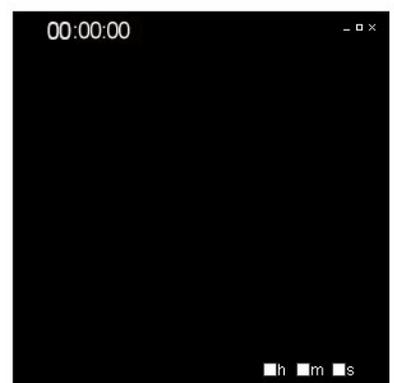


midnight

hours

minutes

seconds



about the chrono.cylce

Chronos

In Greek mythology, 'Chronos' is the personification of time. In today's languages, 'chronos' is found as an etymological root for words like 'chronology', 'chronic' and 'chronicle', 'chronology'.

The cycle is based on the principle of mapping the basic units of time to the primary colours of light, where hours = red, minutes = green and seconds = blue.

Following this set of rules the progression of time leads to the increase of the corresponding colour filling continuously, starting from the bottom to the top, the render plane. In this manner each second leads to the increase of the blue surface, each minute increases the green and each hour the red. The resulting overlaps of these primary colour surfaces creates the secondary colours, according to the additive colour model, yellow (red plus green), cyan (green plus blue), purple (blue plus red). In this manner the progression of time, the increase of overlapping colour surfaces, leads to an increasing brightness culminating when the three colours overlap completely at midnight, thus becoming white and complete black when there is no colour overlap at noon.

This time-based system founded on the parametric relation between time and light creates a periodic rhythm comparable to the course of the earth around the sun with its circadian rhythm of days and nights.

The description of this time and light relation in form of an abstract, geometric an elementary process relates the works conceived within the 'chrono.cycle' to the researches and aesthetics of the conceptual and minimal movement of the 60's hard edge painting while confronting it to the systematic approach of programmed, parametric, art.

about who's afraid of rgb edition

The title 'Who's afraid of Red, Green and Blue' refers to the 1950's series 'Who's Afraid of Red, Yellow, and Blue' from the American artist Barnett Newman, one of the major figures of the 'colour field painters'. He used large, hard edged areas of saturated colours punctuated by narrow coloured vertical bands. This vocabulary reduces painting to its very elements such as colours and proportions, a painting in its most pure state, freed of any figurative aspects. Moreover, Newman's works were searching for a symbolic expression in abstract art, rather than an auto-referential language of its constituting elements.

Contrary to a first rather polemic understanding, the title establishes a rhetoric question confronting the meaning and means of painting, as it directly questions the relationship in between the painting (object) and the viewer (subject).

In this sense, the reference to the Barnett Newman series' is based on the research of a vocabulary of colour and shapes as a proper language for an enlightening of the Dexia Tower. The proposed artworks in the 'who's afraid of RGB' cycle are all based on the elementary codes of light, by researching a symbolic value proper to the status of the tower being an urban, thus collective, sign.

During a longer period, different variations on this theme will enlighten the facade of the tower to establish step by step the vocabulary of the tower enlightening while allowing to experiment and finalize a version which than will run every day for a long period. The first artwork of the series, 'Chrono', relates the basic units of time to the primary colours of light while using RGB as a code for hours (= R), minutes (= G) and seconds (= B). The second variation, the weather.tower relates the coloured lights of the tower to the environmental weather conditions while relating temperature to colour, wind directions to pattern ...

Additionally, the artwork can be downloaded in form of a widget <http://www.lab-au.com/chrono/widget> , a small desktop application, which one can install on his/her personal computer. This widget allows you to follow the process on your computer similar to the running artwork on the tower. The widget expresses one of the major project focus the symbolic relation between the private, individual and public, collective, space in an informational and networked society Besides the interactive enlightening, see LAB[au]'s touch project, and performative art related projects, see LAB[au]'s spectr[a]um event, this research for a permanent enlightening, based on generative art, forms one of the three types, program axis, foreseen for the enlightening of the tower.

