

NUAGE VERT (VIHREÄ PILVI)

An environmental installation in the landscape of Ruoholahti, Helsinki, Finland

22-29 February 2008, 19:00 – 22:00



HEHE Association

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ARTISTIC INTENTION

1 Context

Today, the accumulation of environmental data and environmental responsibility has become real social and economic forces for individuals, enterprises and governments. A house owner could receive financial help for the isolation of his building, the choices of a company in regards to their use of environmental materials can influence its share prices, a government can influence its popularity, as they favour or de-favour international pollution emission agreements. This close interplay between environmental ethics and economy creates a new generation of environmental advisers, models, markets, sciences, and ecological activists and, of course, it will catalyse new methods of artistic practice.

2 The "Pollstream" series

Nuage Vert is part of Pollstream: an artistic research exploring the notion of pollution from a speculative, cultural point of view.

Pollstream is an intervention in environmental ethics. It creates a series of interactive environments in which members of the audience are in a process of monitoring localised pollution at the very same time that they produce it. The audience is required to conceptualise themselves as responsible – collectively and individually – for their emissions. As consumers our default position is one of disengagement – we rely on others to clear up our mess, to hide it in landfill, for example, or toxins inside our body. And the abstraction of inescapably globalised pollution, escalating beyond the control of any individual nation state, can easily undermine a sense that localised actions are worthwhile or effective.

Pollstream, uses visual, kinetic and sonic technologies, to undermine these typical defences of disengagement by speeding up the normal time it takes for our actions in and on the environment to have consequences. Through this series of installations, one has the sensation of acting in real time. The diverse proposals, realised or not, include architectural designs, consumer products and installations, however amongst all of them Nuage Vert is the most ambitious.

3 The Nuage Vert project

Nuage Vert proposes to use the chimney emissions of a power plant as a canvas for information flow. The intervention consists of tracking and projecting a laser image onto the contour of vapour, adjusting its shape and size to signal real-time information. This information is collected by the power plant and relates to ecological activities of local residents. Every night for two weeks during the February 2008, the vapour of Salmisaari will be illuminated, to show the current levels of electricity consumption by local residents. Before and during the event there will be a media campaign to ask residents to consume less, climaxing with a date un-plug their electrical appliances to make the green cloud grow.

The chimney becomes a community measuring tape, a shared canvas. But there is an irony here: Nuage Vert aestheticises an icon of industrial production while seeking to draw the viewer's critical attention to it. It becomes a sign of wonder, a spectacle; a space is opened up for the spectator. Could they become mesmerised by a beauty that is, literally and metaphorically, a smokescreen? Will they retreat to making this (terrible) beauty another defence?

Beyond the spectacle, the underlying purpose of Nuage Vert is to generate collective cooperation amongst the inhabitants, which can potentially be coordinated spontaneously in real time. By creating a public process, which is directly related to sustainable actions, people are encouraged to adapt their behaviour.

4 Visual Language

Light

Light has always been used as a means of communications: since the earliest smoke signals till the neon signs of the modern city. Today, the use of outlines that draw in light, are used most commonly in entertainment and the public advertising of consumer goods and services. This reference to the neon signs of mass consumption and the lasers of hedonistic nightclubs are appropriated for Nuage Vert.

Form

The cloud is a potential form, in constant movement, which can never be fixed. Throughout the history of photography and painting, artists have attempted to catch this phenomenon. The project Nuage Vert is a symbolic as well as technical challenge. It seeks to capture this form in its physical reality and to create a unique and utopian representation: it attempts to paint the skies.

Meaning

Hubert Damisch in his work "Theory of Clouds" (Seuil 1972, France), made a rich inventory of the successive signification of the cloud in the history of painting. Not merely a descriptive element, the cloud constructs the semiotic meaning of the work and their function varies according to the ideologies of the given era. Today, the industrial era accomplished, the clouds of factories continue to convey the notion of pollution. Through this project, the industrial cloud takes on a new meaning, adapted to the current realities of sustainable development.

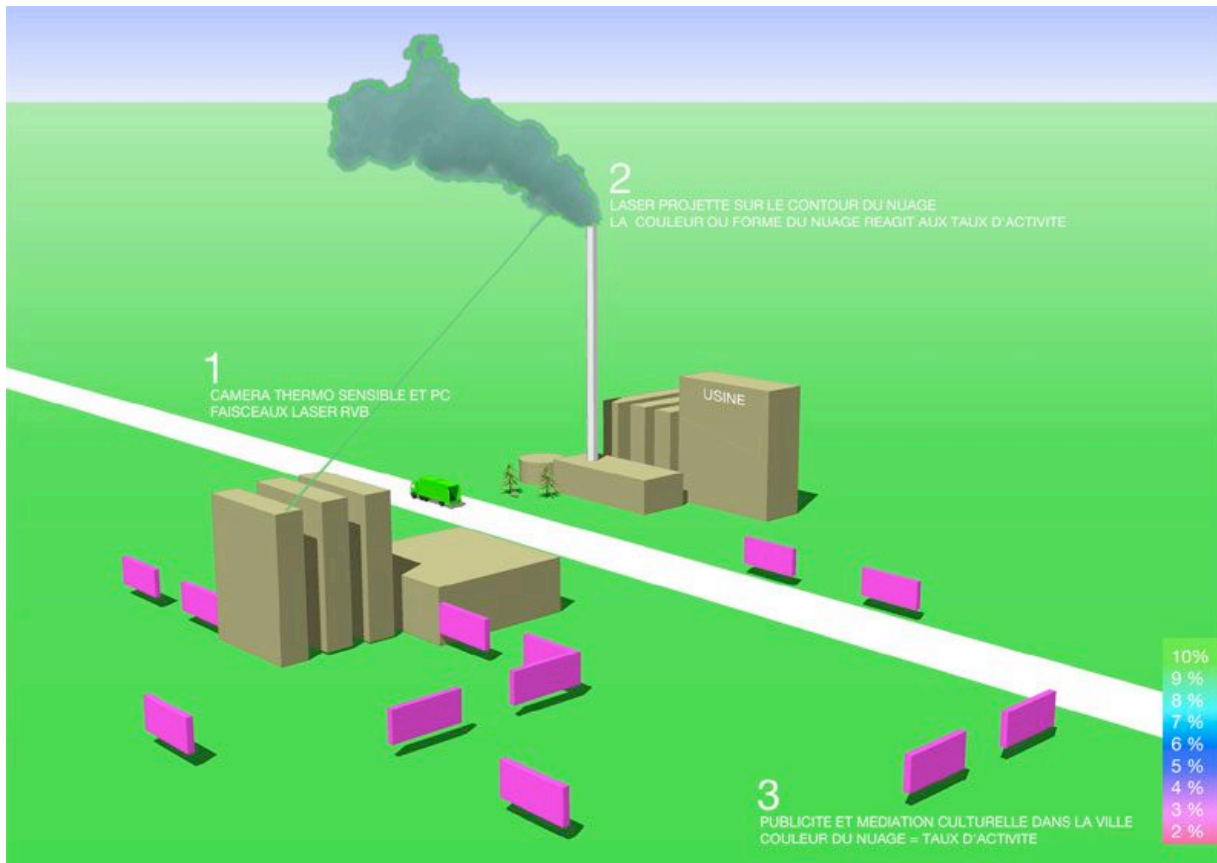
5 The site: The Salmisaari power plant,

Nuage Vert will be realised in February 2008 at the Salmisaari power plant in Ruoholahti. The particularity of the surrounding area is its recent development from an industrial harbour zone to a residential one, with an architectural heritage of 20th century industrialisation. The area is also becoming associated with technological innovation: the area now hosts many small to medium sized innovative technology companies. This transformation process in Ruoholahti began in the 1990's with the founding of the non-profit arts & culture centre Kaapeli, housed within a former Nokia cable factory, situated just 150 meters from the power plant. This juxtaposition of residential, telecommunications and independent art & culture, provides a utopian backdrop for the first edition of Nuage vert. In terms of its small scale, its geographic and urban situation in relation to the rest of the city, Ruoholahti already evokes a utopia, giving the project a feasible community dimension.

The Salmisaari power plant is a coal burning plant that produces heat, cooling and electricity for the whole city of Helsinki. The district heating system in Helsinki was started already in the 1950's and covers now over 90% of the heat demand of the city. District heating system was put in place in order to counter the increasing atmospheric pollution in the city caused by individual coal burning stoves within each home. During winter, the temperature can fall to -20°C, and the condensation of the vapour can be seen from many points around the city. The Nuage Vert project will focus on electricity consumption, demand for which increases by more than 2% every year. People will be asked to decrease and un-plug themselves from the electricity system, to increase the size and intensity of Nuage Vert.

TECHNICAL DESCRIPTION

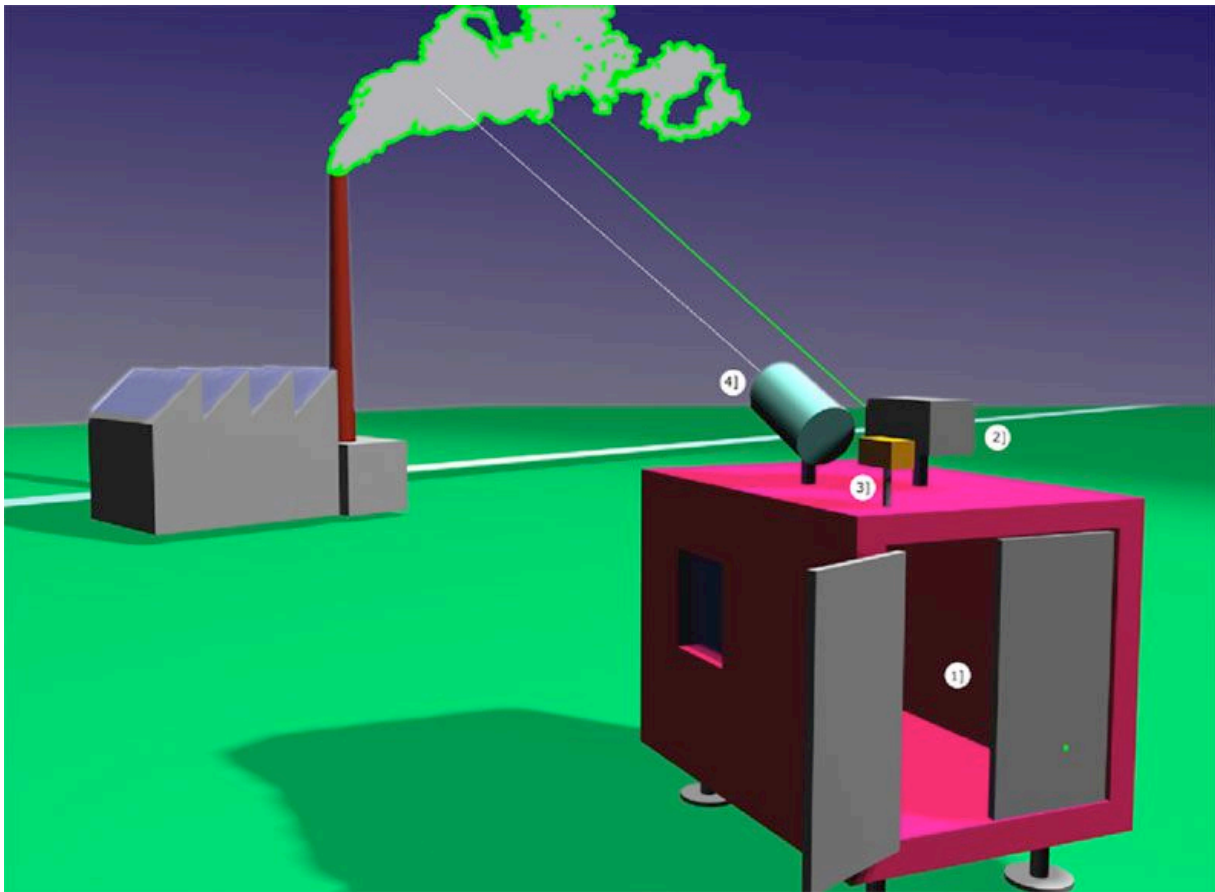
Nuage Vert addresses the inhabitants living near to industrial zones where there are waste incinerators or power plants. The cloud emissions are visible in the landscape by both residents and passers-by, serving as an urban landmark and as a weather indicator (for atmospheric pressure, wind speed and direction). On architectural scale, the event will be visible from many places across the city.



Nuage Vert consists of three interconnected parts:

- 1) System for capturing the cloud and projecting it's contour
- 2) Working with the factory: deciding on how to represent their data.
- 3) Communication campaign: in partnership with local schools and an NGO there will be a city wide communication campaign, which will include public debates, seminars, think tanks, actions in schools, all of which will influence people's understanding of Nuage Vert.

1 Capturing the cloud and projecting the contour

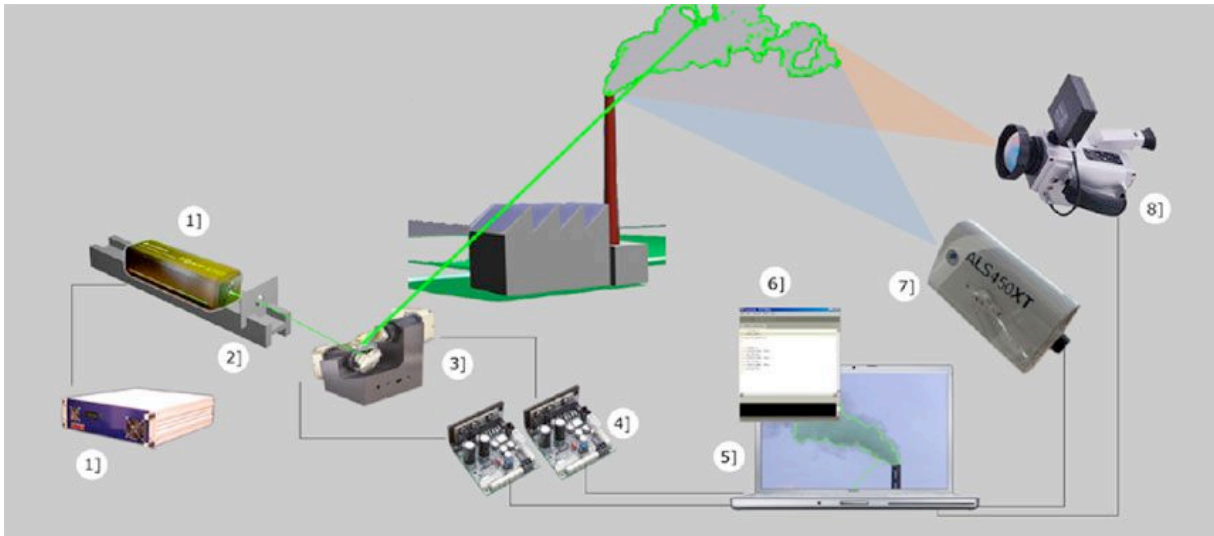


1] Temporary installation from the rooftop of Kaapelitehdas

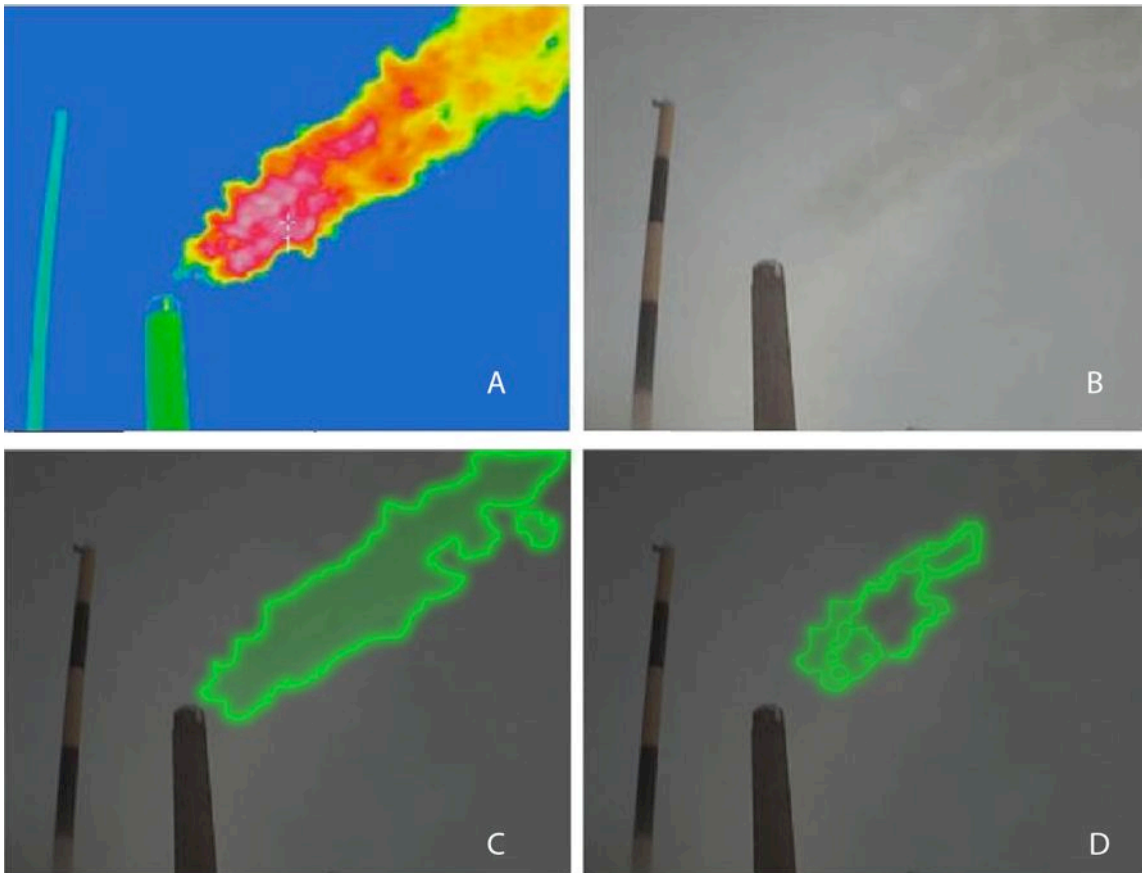
2] High power green laser & laser scanning system to project onto the cloud

3] Thermal sensitive video camera to track the cloud

4] Computer & Internet – for realtime data on the quantity of energy consumed by residents of Ruoholahti and Lauttasaari.



- 1] Laser DPSS (Diode Pulse Solid State) 532nm green 8W
- 2] Anodised aluminium box for laser, fixings, security components.
- 3], 4] Dual scan heads, AD controller, ILDA Easylase card
- 5] PC with accelerated graphic card and analogue video card
- 6] Interface written in Processing (an open source software environment). This software operates the following functions: live video tracking, vector graphics generation, scaling & repositioning, and writing x-y commands to the laser controller.
- 8] Thermo sensitive video camera with 30° lens.



- A] Photo image of the chimney taken with a thermal camera
- B] Photo image of the chimney taken with a standard digital camera
- C] Simulated image of the chimney with laser projection, looking at a large heat range
- D] Simulated image of the chimney with laser projection, looking at a small heat range

2 Data coming from the factory

The data used to determine the size of Nuage Vert will be taken from the Salmisaari substation, where 30% of electrical consumption is residential. Average power in Salmisaari is 25 MVA in 2006. In order to observe any consumption behaviour difference, decrease should be 1 MVA at least, which is approximately 4 % from the consumption average.

Technically, this information will be uploaded to an http server at regular intervals (in real time).

3 Cultural mediation of Nuage Vert

A flyer, a poster and stickers, designed by Paris based duo Devalence, will be distributed throughout Ruoholahti and Lauttasaari. The flyer introduces Nuage Vert, whilst maintaining a degree of mystery. The poster shows the relationship between the size of the green cloud and household consumption. The sticker, reminds people of the unplug date and time and can be stuck to the wall next to light switches.

Dodo, environmental activist organisation, will present Nuage Vert in all the schools in Ruoholahti and Lauttasaari.

The Centre Culturel Français will host an evening film screening followed by a public discussion about the project and the relations between art, ecology and public opinion. Scheduled for 28th February

Helsingin Energia will offer refreshments to members of the public outside tram stop 8 at Salmisaari for the opening of Nuage Vert at 17:00 on the 22 February 2008.

Sydväst polytechnic will host a unique 'acoustic' party on the 29th February to celebrate the end of Nuage Vert.

Film students at Stadia Helsinki Polytechnic, will make a short video documentary, to record the making and reception of Nuage Vert.

PARTNERS

Pixelache, Festival of Electronic Art and Subcultures (www.pixelache.ac)

Helsinki City Cultural Office (www.hel.fi/wps/portal/Kulttuuriasiainkeskus)

Ministère de la Culture et de la Communication, DICREAM, France (www.cnc.fr)

Helsingin Energia. (www.helsinginenergia.fi)

Sydväst, Polytechnic School, Department of Cultural Production. (<http://www.sydvast.fi>)

Centre Culturel Français of Helsinki (www.france.fi/ccf)

Ympäritötaidesäätiö (www.yts.fi)

HIAP, Helsinki International Artist-in-residence Programme. (www.hiap.fi)

Dodo Ry (www.dodo.org)

KKN, Nordic Culture Point (www.kkbnord.org)

Motiva.Oy (www.motiva.fi)