

«Watching The World, The Encyclopedia Of The Now»

an **art** project by

KURT
CAVIEZEL + **zh**
aw School of
Engineering

Abstract:

"WATCHING THE WORLD, The Encyclopedia Of The Now"

This is an interdisciplinary **art** and **photography** project, a **AI** and **big data** experiment, an **exhibition**, a **research** and an **online** project - and uses **open data** sources for this purpose.

It photographs the world in real time around the clock and across the globe using publicly accessible **network cameras**.

The captured images are presented simultaneously on a **website** and can be experienced in different modes. With the help of artificial intelligence, a new form of seeing is created - a new kind of photography.

"Watching The World" can be understood as a gigantic digital camera that allows the viewer to **curate** and **individually use** the simultaneous views of the world. The incessant stream of images can be **structured** and **organized** in real time according to various content-related or formal criteria - a dynamic, visual experience.

The network cameras look at both the **public** and the **private**. The fact that different cultures attach different importance to the value of privacy is just one aspect of this. What can be seen in the images determines the world and is simultaneously in the eye of the beholder. This can be **provocative**.



The world is being photographed now,
this very moment.

About us:

Kurt Caviezel:
Artist, based in Zuerich

**ZHAW, Zurich University of Applied
Sciences**

Exhibitions (excerpt):

- International Center of Photography (ICP),
New York (USA)
- Fondation Cartier pour l'art contemporain,
Paris (F)
- Rencontres d'Arles Photographie,
Arles (F)
- Fotostiftung Schweiz, **Winterthur** (CH)
- Museum of Photography, **Lianzhou** (China)
- Foto Colectania, **Barcelona** (ESP)
- NRW Forum, **Düsseldorf** (DE)

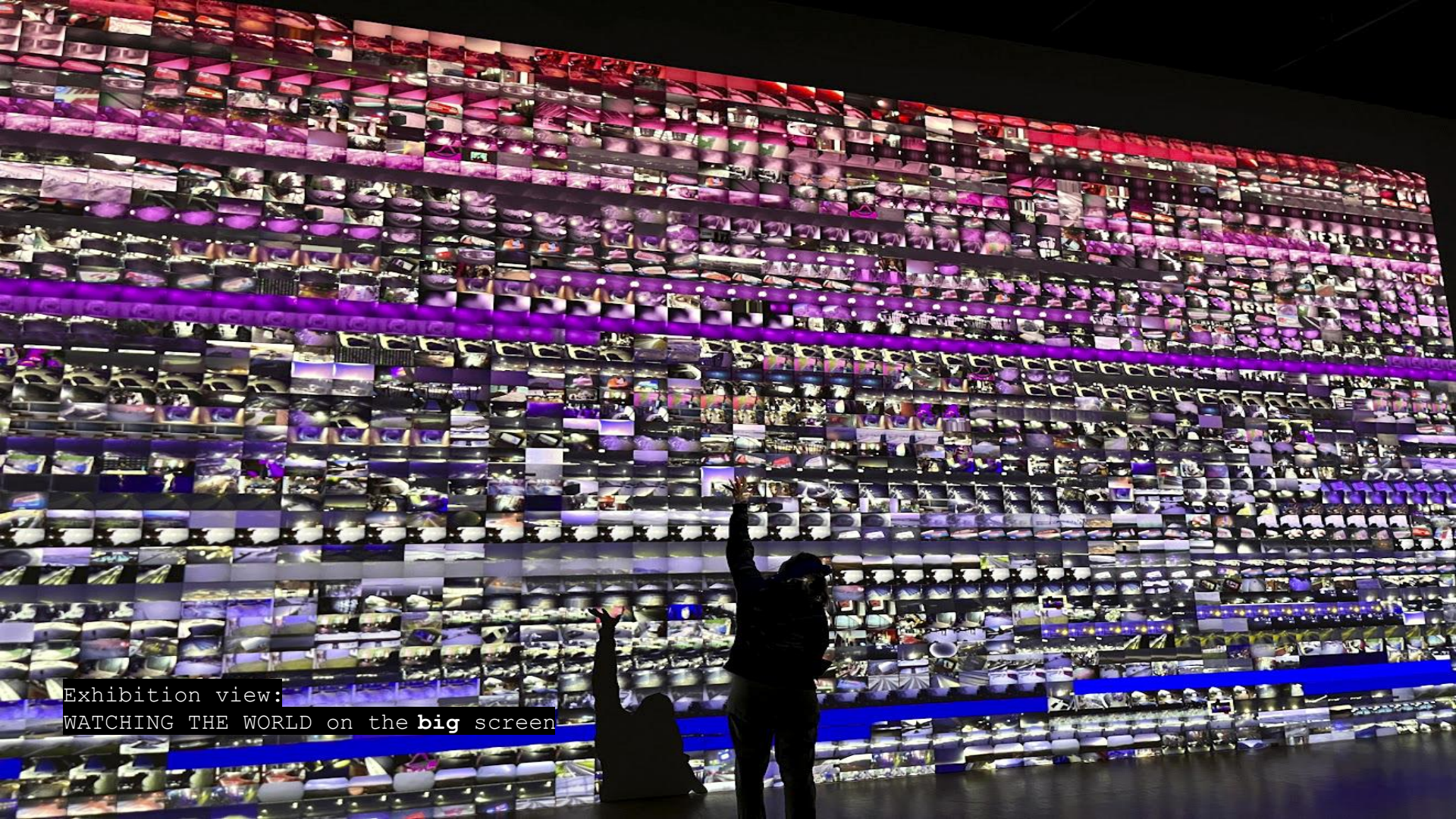
School of Engineering:

Institute of Data Analysis and Process Design

- Prof. Dr. **Helmut Grabner**,
Professor of Data Analytics
and Machine Learning
- **Fitim Abdullahu**,
Research focus Data Analysis
and Statistics

Watching The World is...

...one of the most consequential
ongoing documentary projects in
contemporary photography – one
that happens to have invented its
own medium.



Exhibition view:
WATCHING THE WORLD on the **big** screen

WATCHING THE WORLD: about

Network cameras - whether web, surveillance, security, IP cams or others - are constantly capturing what is happening and feeding their images **live** into the network. The web itself is becoming a camera, a gigantic camera through which the world is constantly being photographed - perhaps entirely in line with the established practices of self-observation for the purposes of self-optimization. But network cameras are more than just the eyes of the internet - they are an extension of our own perception, **body extensions**. Through them, we not only look into the web, but through the web - back at the **real world** and ultimately at **ourselves**.

And this camera can - on the one hand - be used to take photographs if we make it our own. Because if you understand the web as a separate and personal camera system, the net cameras take over the actual task of the **lenses**. The screen becomes the **viewfinder** and the mouse becomes the **shutter release**.

On the other hand, this gigantic image machine photographs live and simultaneously around the globe. The images appear somewhere on the web - automatically photographed, without the scrutinizing eye of an **author**. If the technology is allowed to work independently, an algorithm presses the button. But does it replace the photographer, the **creative author**? Does it claim image rights? Does it bear responsibility for the content? Or does this lie with the operators of the cameras - or even with the technicians who installed them and thus determined the image section? This creates a new and piquant **mode of authorship**.

WATCHING THE WORLD: about

Today, the world is photographically available at any time. The theorem of the **decisive moment**, which is central to classical photographic history and is always tied to a specific location, is thus expanded and reduced to absurdity: When a gigantic camera incessantly captures everything, this one moment loses its uniqueness. Instead, it expands across the entire globe - a moment that takes place everywhere and at the same time.

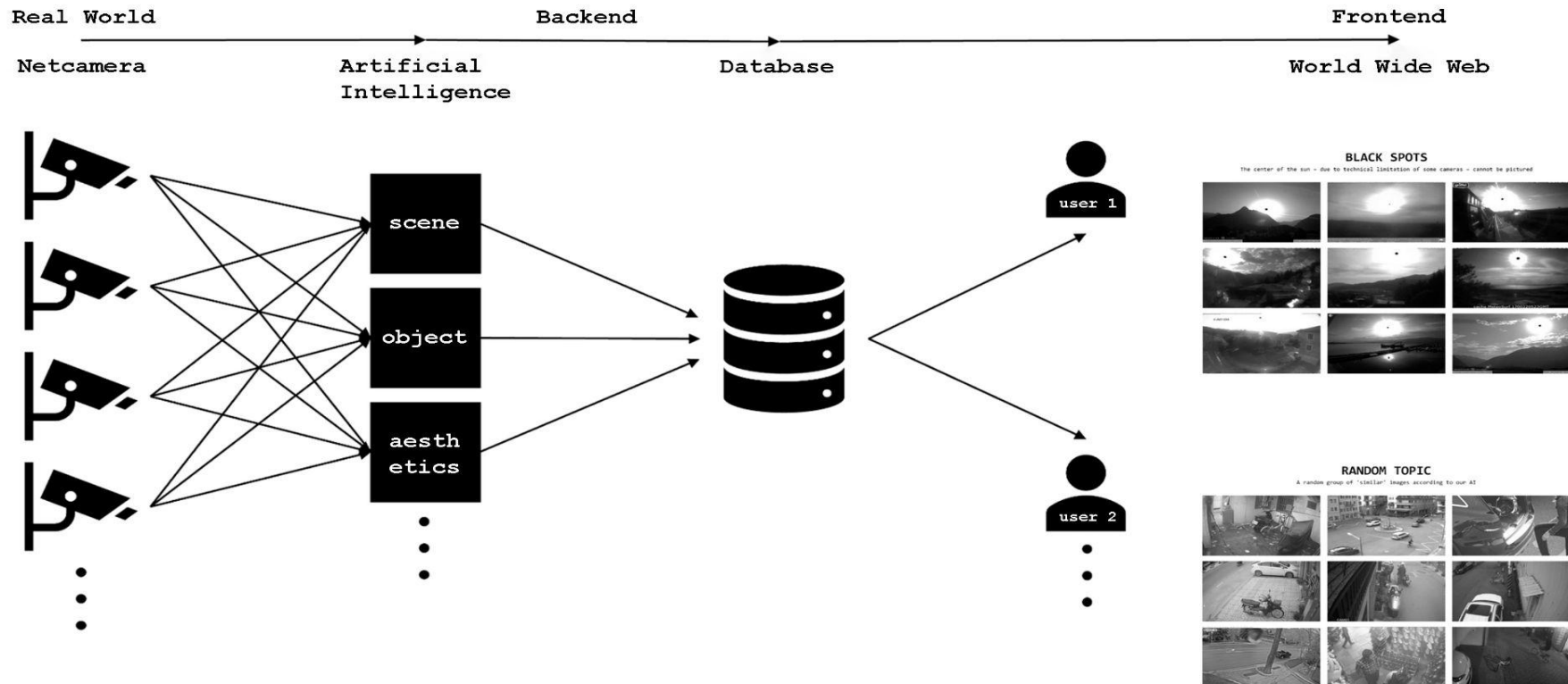
If you photograph thousands of these moments simultaneously and make them immediately visible online, you create an **encyclopaedia of the now**. Or in other words: you can see everything - and from here it's not far to a metaphor for God.

Watching The World also pursues the goal of not only making this spatially expanded global moment visible, but also consciously manifesting it - as a living, constantly changing and renewing map of the world, so to speak.

Although the issue of **surveillance** plays a role in this and is undoubtedly an important aspect, at its core it is about much more: it is about observing the world in its complexity, grasping its structures and movements and gaining new **insights** from these incessant streams of impressions and information. Ultimately, this type of observation opens up the possibility of not only seeing, but also understanding and formulating **new knowledge**.

Kurt Caviezel and the **ZHAW**, Zurich University of Applied Science, have jointly developed and programmed a "Big Cam" that makes exactly this possible. This camera is **publicly accessible** and can be used in its own unique way.

WATCHING THE WORLD: about



WATCHING THE WORLD: about

Thousands of netcams are recorded in **our system** new ones are added continually. The algorithms download more than **a million images** from the web, every day.

Each image is analyzed by an artificial intelligence (**AI**) and archived in our storage for **72 hours** before being overwritten by the following ones.

As a user, you can now observe the world according to **predefined** criteria or according to **your own categories** by using the text search.

New features are constantly being developed and added to the world's largest camera.



Main page:



TEXT SEARCH

>> LIVE

>> STREAMS ▶

>> US
ELECTIONS

AFRICA

AIRPORTS

AMERICA

AMERICAN

SELFIES

ANIMALS

ASIA

AUSTRALIA

BEACHES

BIKES

BLACK SPOTS

BOATS

BRIDGES

CARS

CHAIRS

CHURCHES

CLICKED

● ● ● ● ● ●

COMPUTERS

CORRIDORS

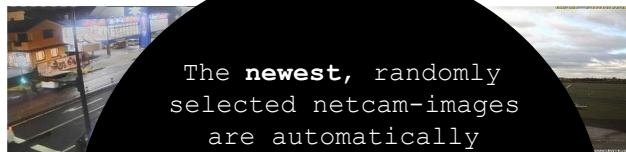
DEAD CAMS

DOORS

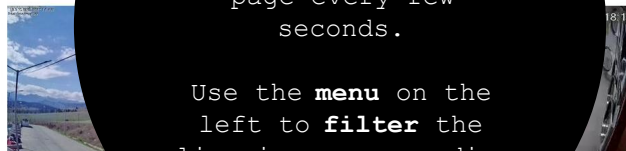
EMPLOYEES

LIVE

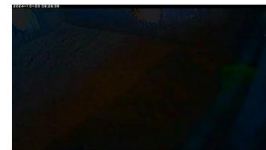
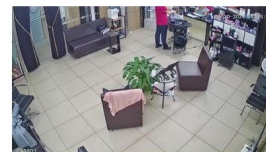
The world at this very moment (9 out of 10231 online cams)



The **newest**, randomly selected netcam-images are automatically displayed on the main page every few seconds.



Use the **menu** on the left to **filter** the live images according to **various criteria**.



Archive page:

KURT
CARTERS + 2010

PAST HOURS

TEXT SEARCH

>> LIVE

>> STREAMS

>> US

ELECTIONS

AFRICA

AIRPORTS

AMERICA

AMERICAN

SELFIES

ANIMALS

ASIA

AUSTRALIA

BEACHES

BIKES

BLACK SPOTS

BOATS

BRIDGES

CARS

CHAIRS

CHURCHES

CLICKED

COLORED CIRCLES

COMPUTERS

CORRIDORS

DEAD CAMS

DOORS

EMPLOYEES

EUROPE

FACTORIES

FISHEYES

FOG

FORESTS

HIDING

By **clicking** on a picture on the main page, the **archive** of this camera will open and you will see all the pictures of the **last 48 hours**.

This **image cluster** often appears as a bizarre and strange **pattern**.

Click on an image to **enlarge** it.

Archive page:

Looking for
patterns:

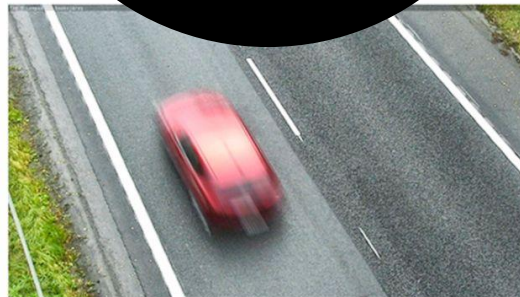
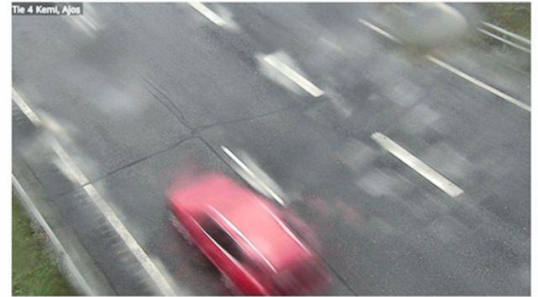
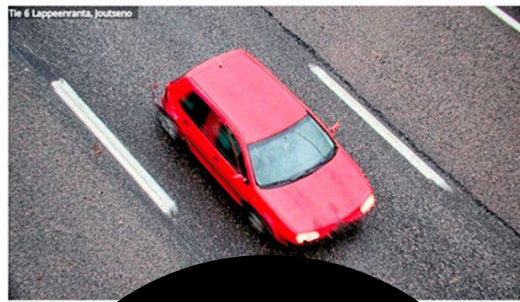
Text search:

TEXT SEARCH

The best match is found right now.

In **addition** to the predefined criteria, you can use the **AI-based text search** to find your **desired pictures** in this constantly flowing stream of images.

Text search:



Looking for
«red cars»:

Big Data:

Time sorted with 3'207'681 images from 18.03.2026

Random || All colors | Color only || **Time** || Photomosaic

Take a look at
all pictures we
have collected
from the last
day at once.

Here for
example:
3' 207' 681
pictures.

Big Data:

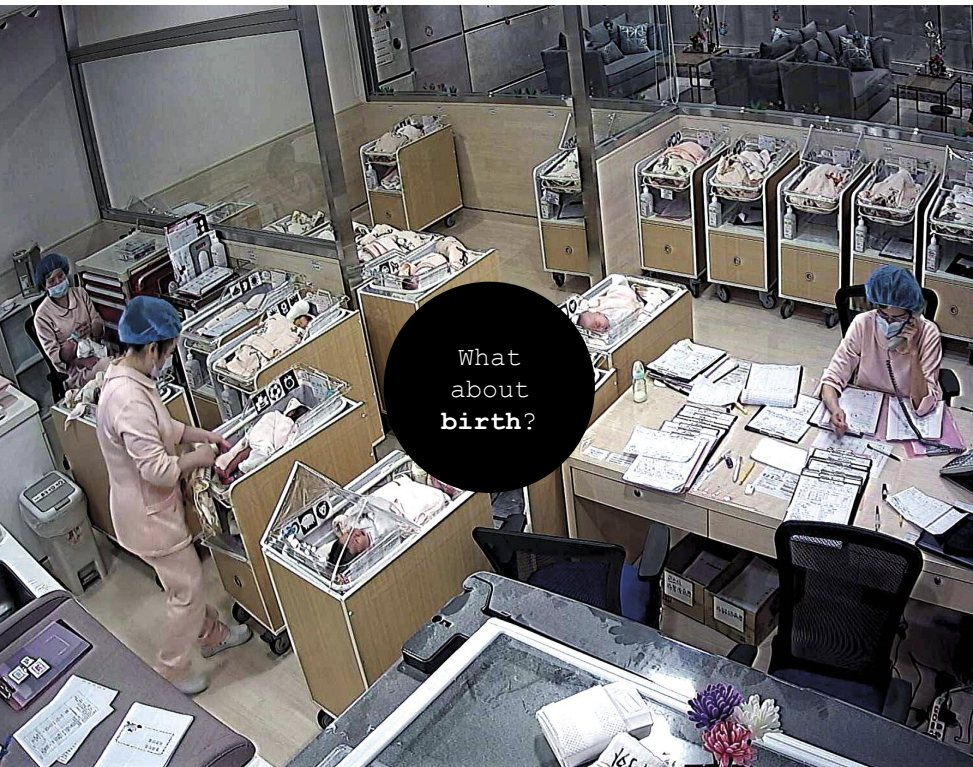
1'790'244 images photographed by the system over 24 hours.

Big Data:

1'790'244 images photographed by the system over 24 hours (part)

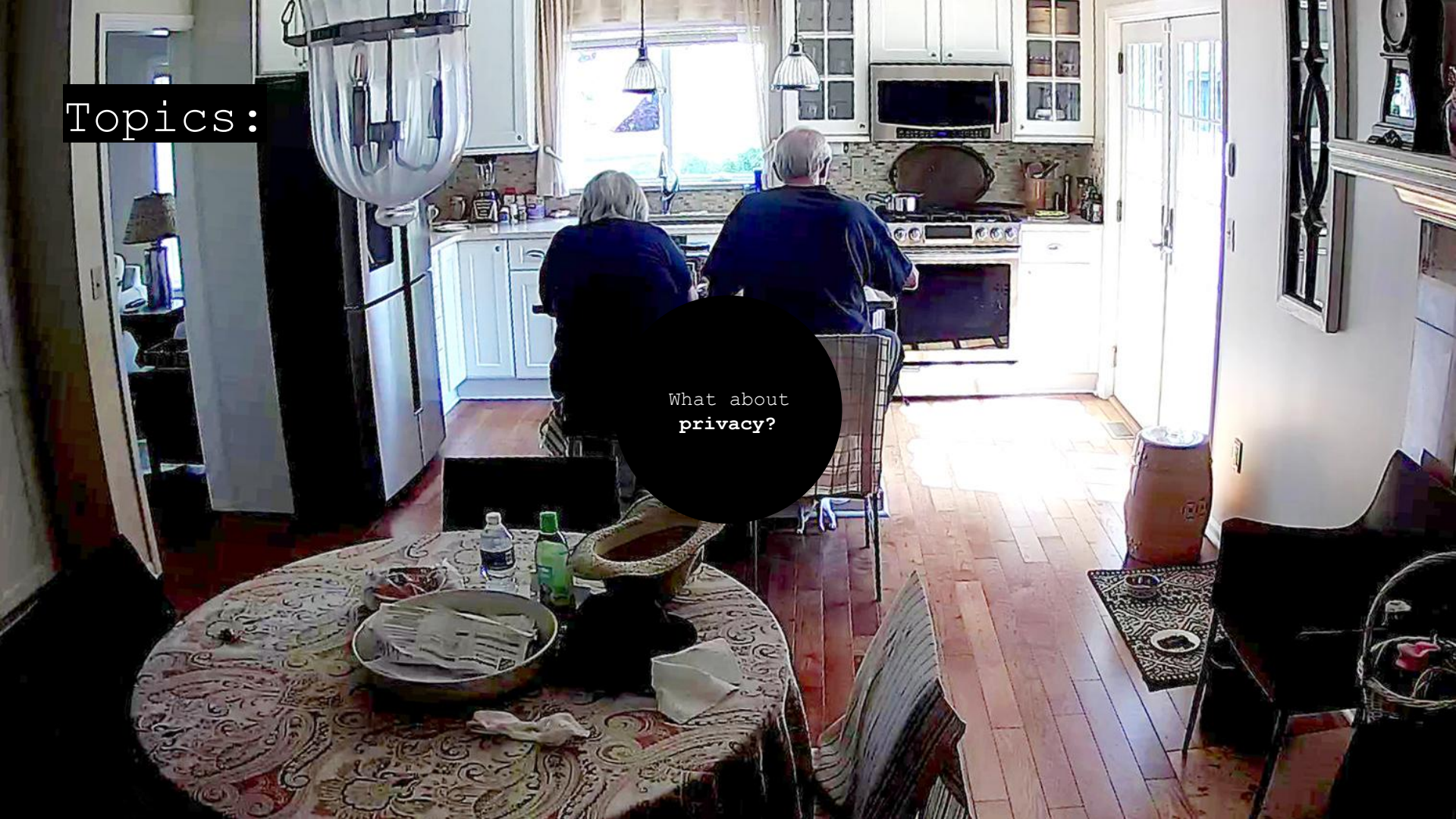
Topics:

Topics:



Topics:

What about
privacy?



Topics:

What about
photography?

Topics:

What about
ethics?



Topics:

What about
data
protection?



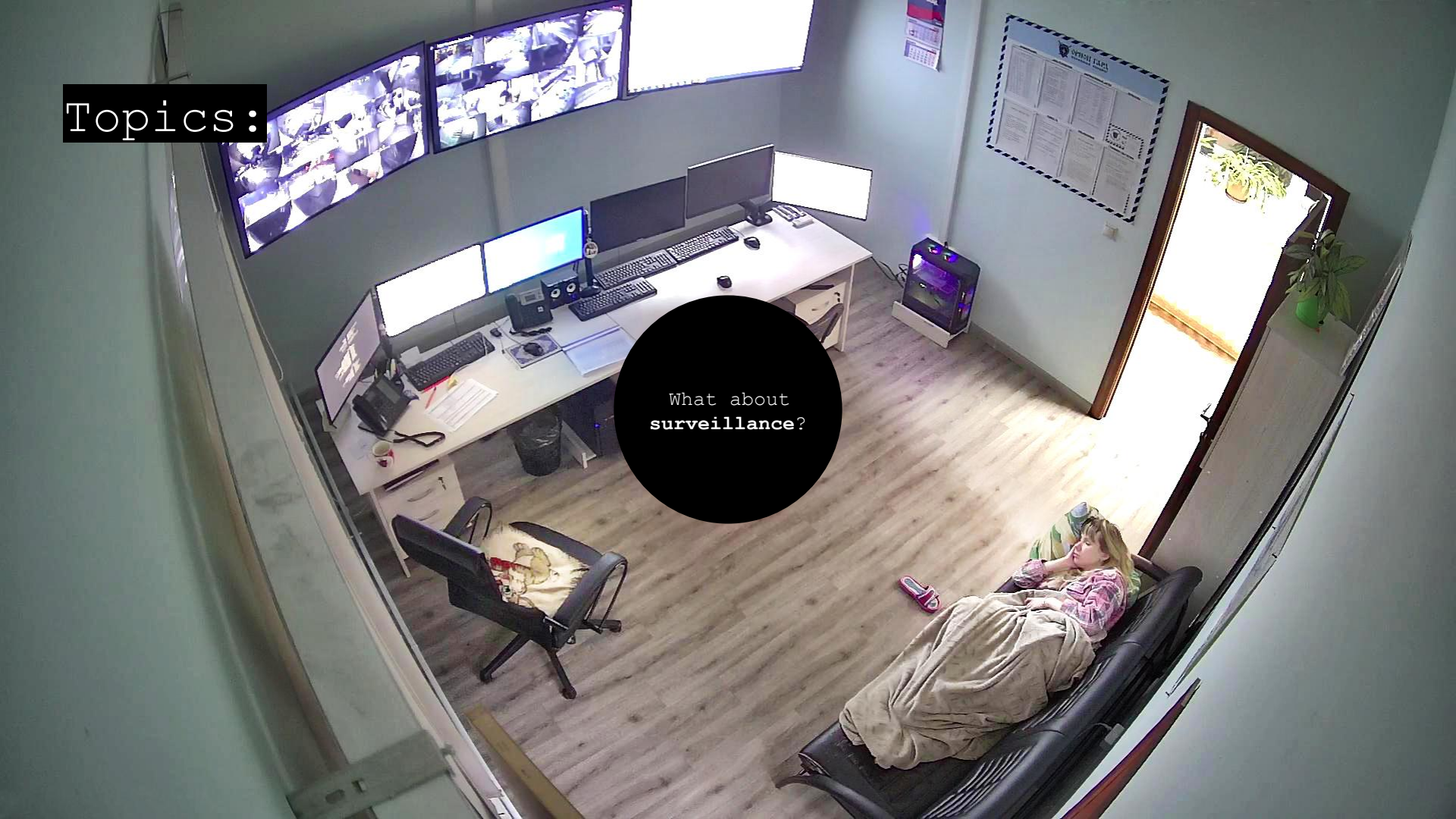
Topics:

What about
work?



Topics:

What about
surveillance?



Topics:

What about
technology?

Topics:

What about
freedom?

Topics:

What the
fuck?



Topics:



Watching The World is...

- a permanently changing online **exhibition**
- an **ai** playground
- a **research tool** on sociological, ecological, political, philosophical, legal, artistic and all possible aspects of photographic practice
- the **biggest camera** in the world
- a **pattern** generator
- a **big-** and **open-data** project
- a **reportage**
- a **teaching aid**
- a **television**
- a **streaming** service
- a **surveillance** vehicle
- a cabinet of **curiosities**
- an image **floodgate**
- a **news** portal
- a data **collector**
- a **osint** (open source intelligence) tool
- an **encyclopedia of the now...etc. etc....**

Watching The World is one of the most consequential ongoing documentary projects in contemporary photography – one that happens to have invented its own medium.

WATCHING THE WORLD: **data stream**

From **single picture** to the **big picture**:

Watching The World opens up the possibility of gaining new knowledge about the world. On the one hand, by examining and analyzing individual images. On the other hand, by **focusing** on the larger, comprehensive overall picture. This change of perspective is achieved by systematically analyzing and interpreting the **data streams** and **camera metadata**. The underlying **infrastructure** and the practical applications of these cameras are also examined. **Pattern recognition** techniques are also used to identify and decipher hidden correlations and trends.

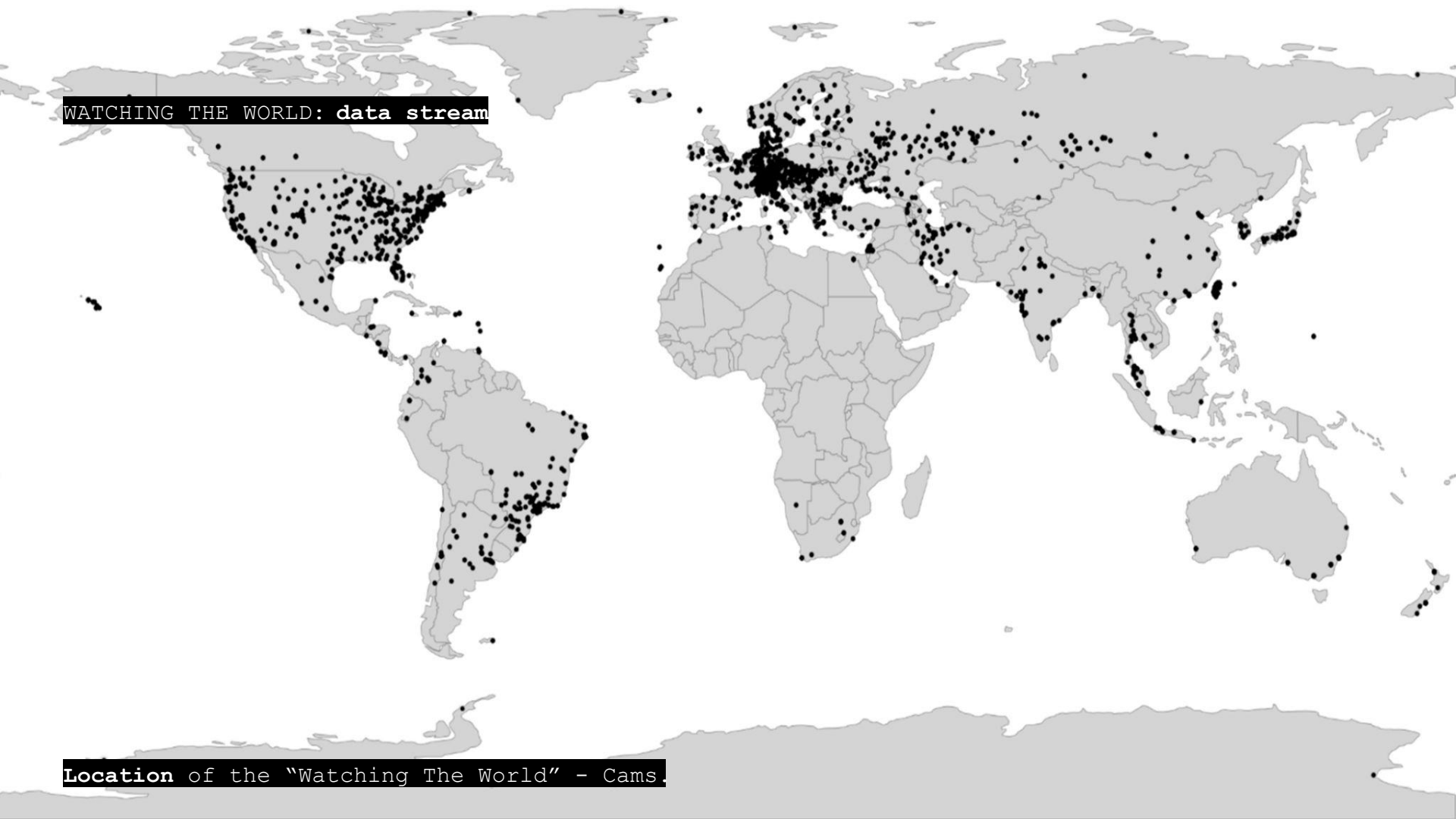
For example, the analysis serves to examine the following questions:

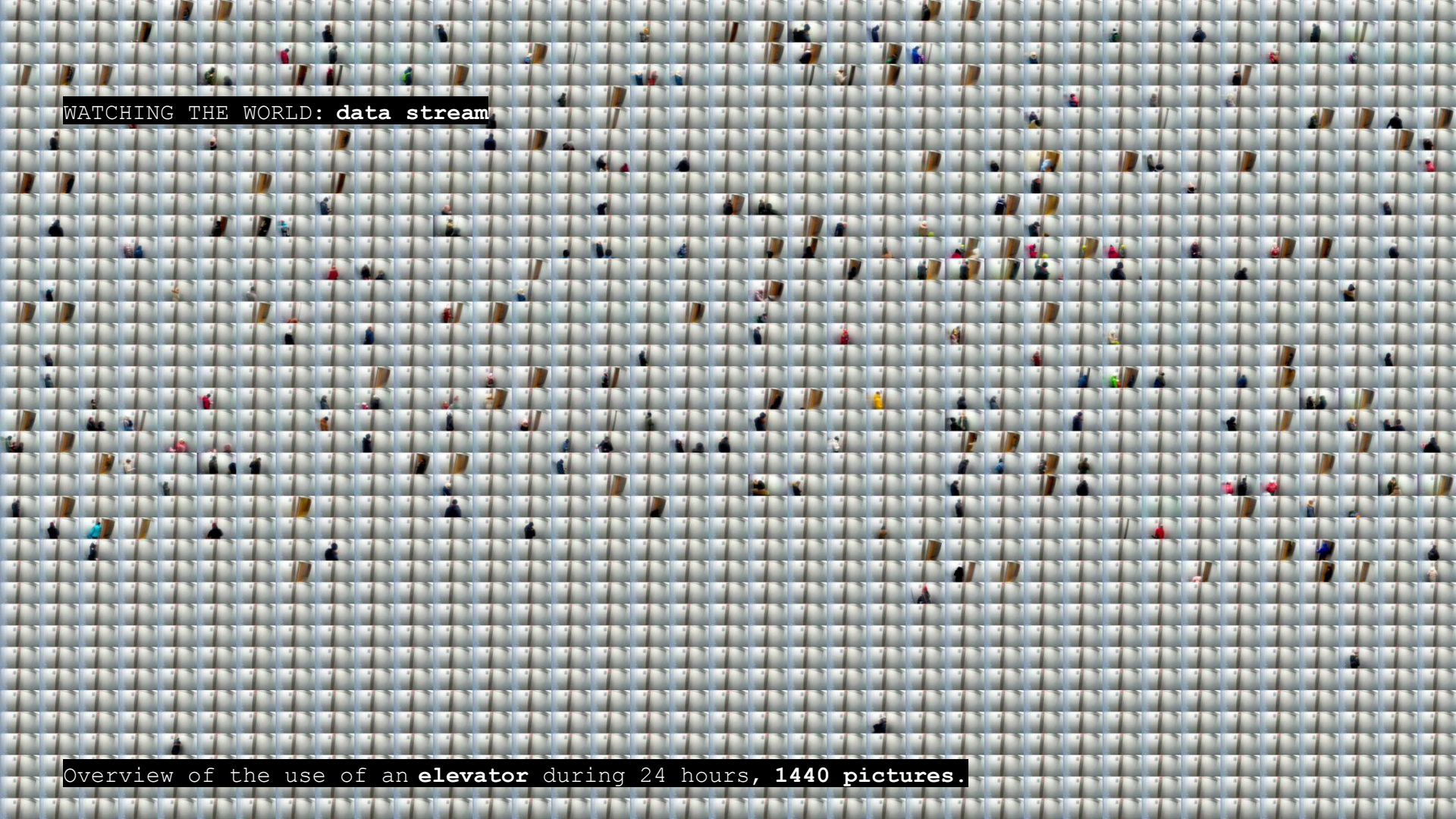
- In which locations cameras are placed - and in which they are not.
- Which camera types are used in certain areas and the reasons behind them.
- Which content is shown in which locations - and which is deliberately not shown.
- In which locations and regions new cameras are integrated into the network - and in which they are deactivated.
- Which patterns and connections are recognizable in large image conglomerates.

Watching The World can therefore also serve as a precise **trend barometer** that shows changes and developments in the world, and at the same time acts as a **seismograph** for the current state and mood of the world.

WATCHING THE WORLD: data stream

Location of the "Watching The World" - Cams.



The image is a large, dense grid of 1440 small, square photographs arranged in 24 rows and 60 columns. Each photograph captures a different moment of people using an elevator. The scenes are mostly interior shots of elevator shafts with people standing or moving. The lighting is consistent across the grid, and the overall effect is a continuous stream of human activity. The text 'WATCHING THE WORLD: data stream' is overlaid on the top left of the grid.

WATCHING THE WORLD: data stream

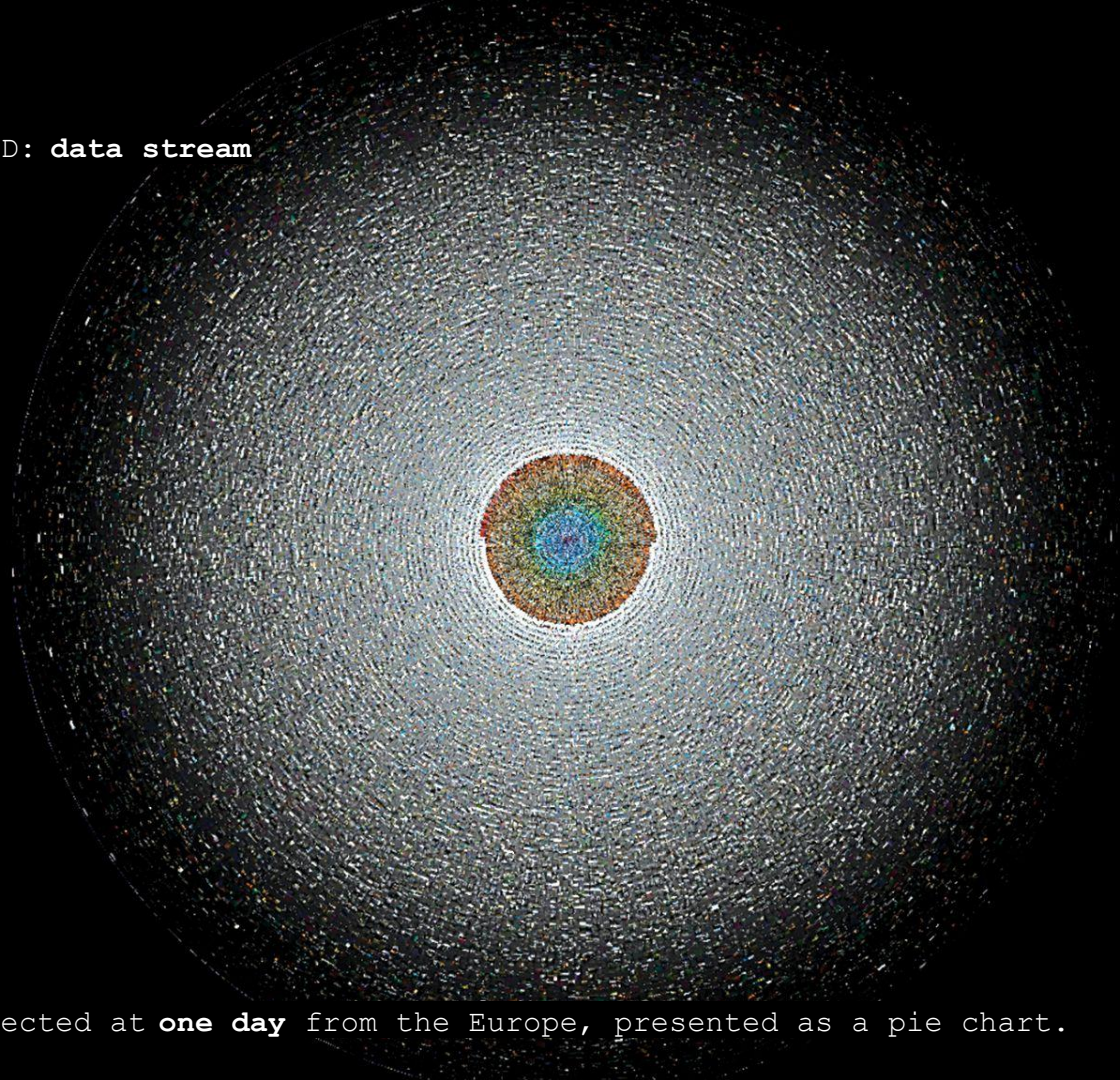
Overview of the use of an **elevator** during 24 hours, 1440 pictures.



WATCHING THE WORLD: **data stream**

1'008'000 pictures from one single cam, gathered over 700 days

WATCHING THE WORLD: **data stream**



All pictures collected at **one day** from the Europe, presented as a pie chart.

Presentation:

WATCHING THE WORLD: **presentation**

How are all these images and data presented, apart from on the website?

In **exhibitions** and **installations**, there are various presentation options - from **prints** and **wallpapers** to **videos** and the presentation of comprehensive visual data on **screens**, **video walls**, as **projections** or through the use of **VR headsets**. The variety of presentation forms makes it possible to show the images and data in a wide range of contexts and experience levels.

These continuously generated image streams can thus be made visible in an exciting way. Our servers are used to combine and arrange the live images in different modes and transmit them **in real time** via the web. This brings them **directly** into the exhibition spaces - as a **Netflix of the real**, so to speak.

Hundreds of thousands of images can be presented **simultaneously** in various forms. One possible scenario: the seamless display of an entire room - from the walls to the floor and ceiling. An immersive **all-over** concept, a **hyperspace** experience.

In live online mode, each new image that is added changes the overall structure, creating a new composition in a **constant flow**.



Exhibition view:
Photo - Schweiz, Zürich (CH), Live-Screen, 2025



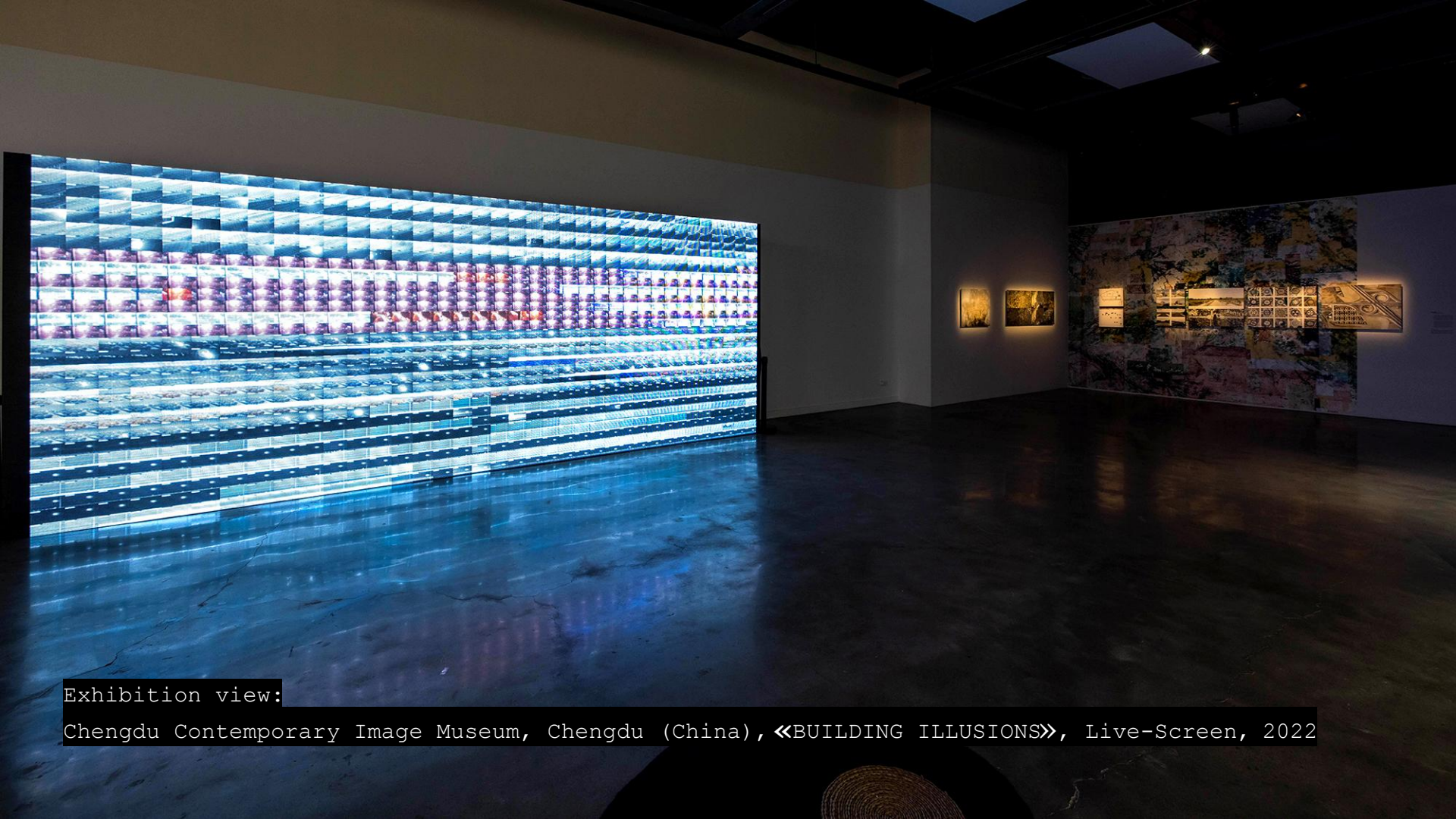
Exhibition view:
Photo - Schweiz, Zürich (CH), Live-Screen, 2025





Exhibition view:

Chengdu Contemporary Image Museum, Chengdu (China), «BUILDING ILLUSIONS», Live-Screen, 2022



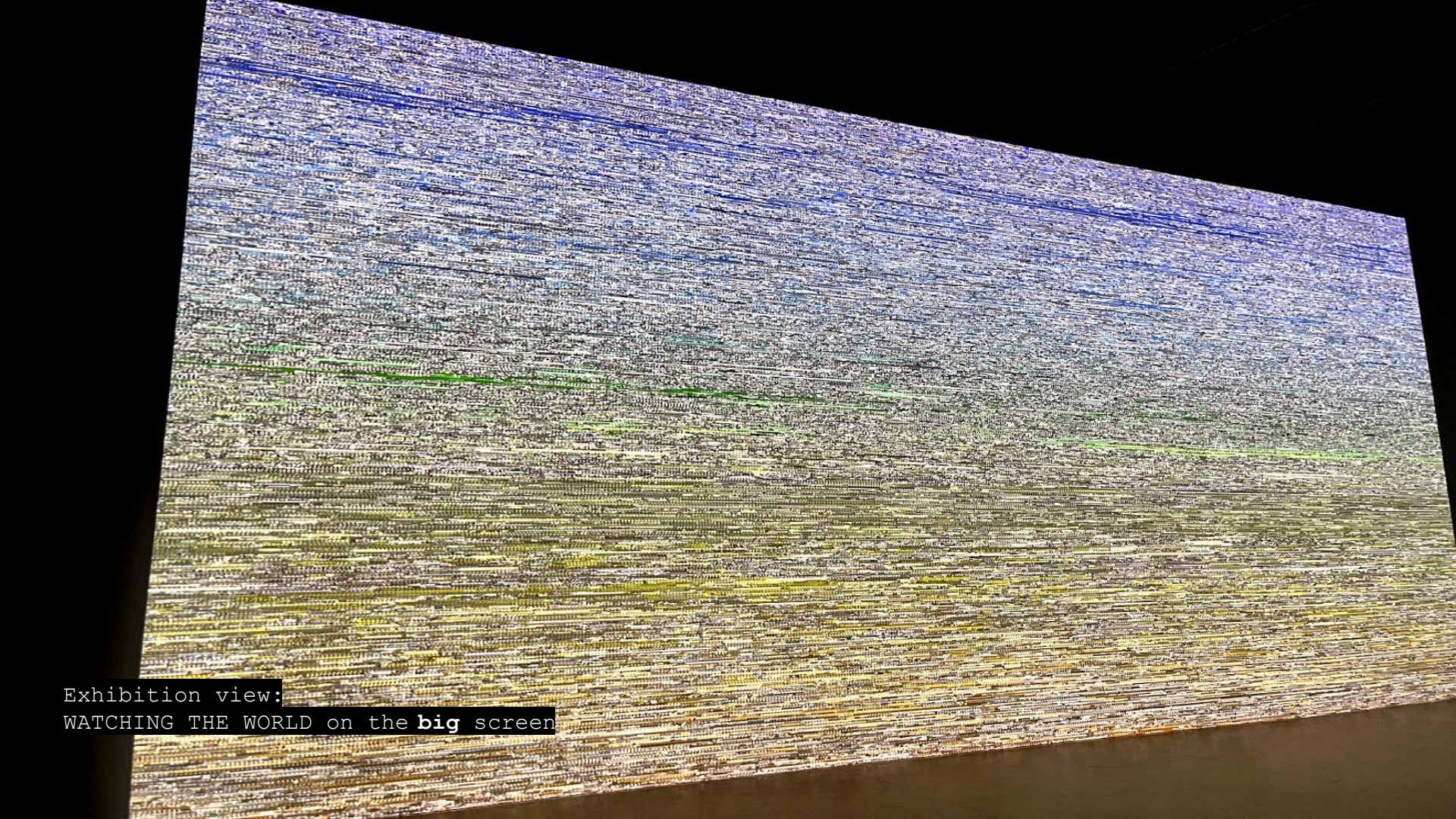
Exhibition view:

Chengdu Contemporary Image Museum, Chengdu (China), «BUILDING ILLUSIONS», Live-Screen, 2022



Exhibition view:

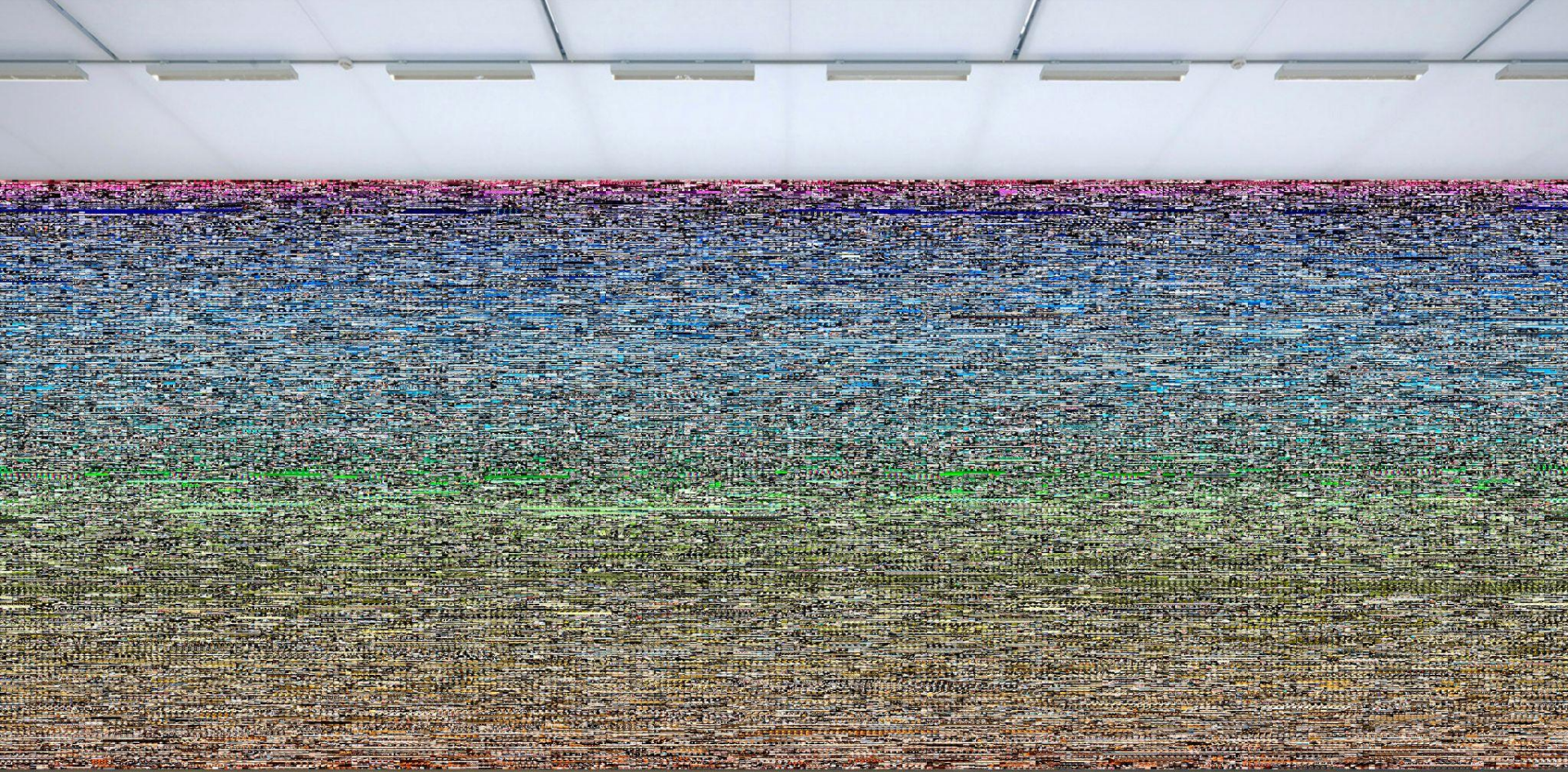
Chengdu Contemporary Image Museum, Chengdu (China), «BUILDING ILLUSIONS», Live-Screen, 2022



Exhibition view:
WATCHING THE WORLD on the **big** screen



One day, 1'368'212 images, 21.10.2024 / Wallpaper or livescreen.



One day, 338'955 images, all color, 21.10.2024 / Wallpaper or livescreen.



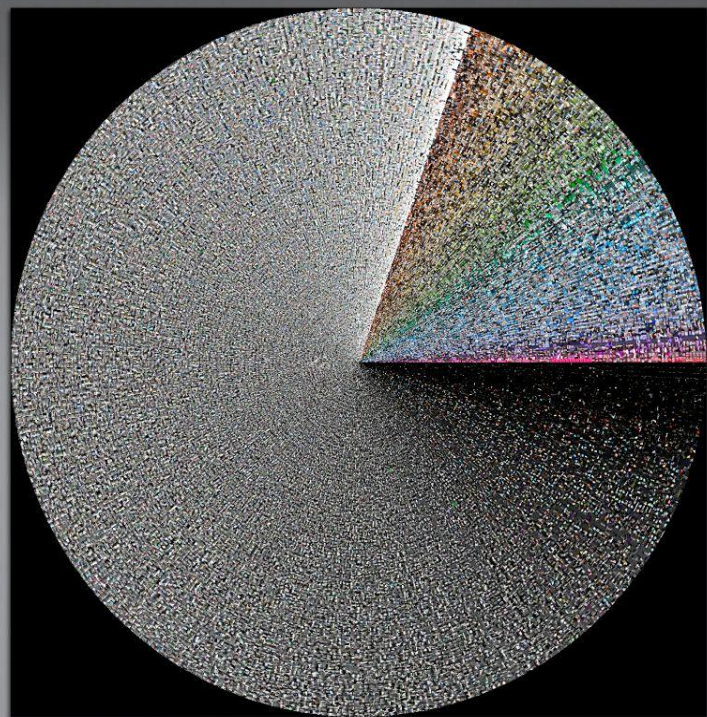
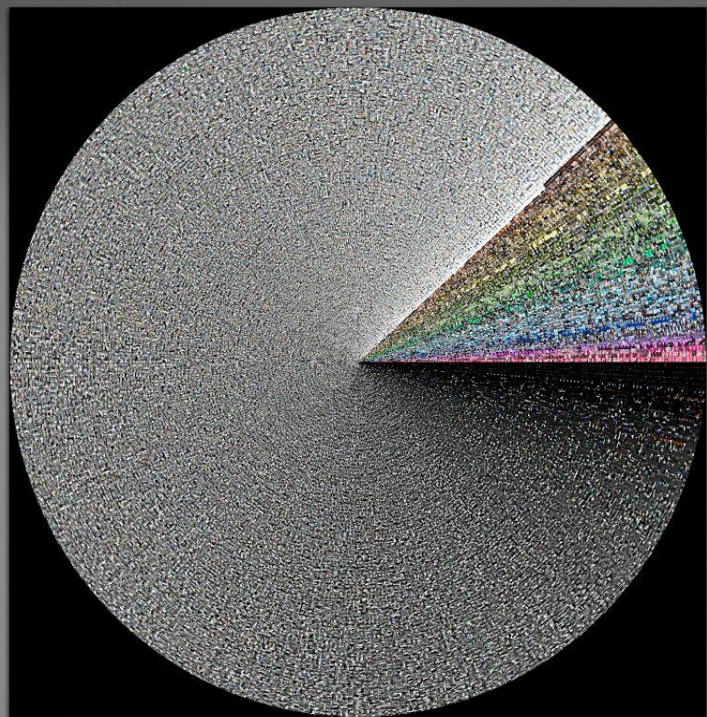
Street surface, live / screens.



Elevator, live / screens.



Pattern, live / 24 screens.



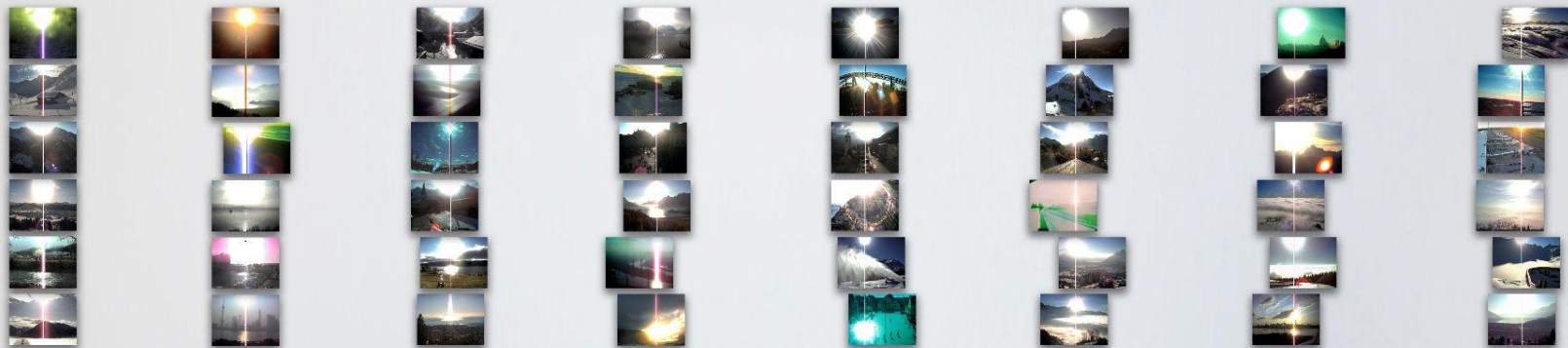
One day Asia, One day America / Wallpaper or livescreen.

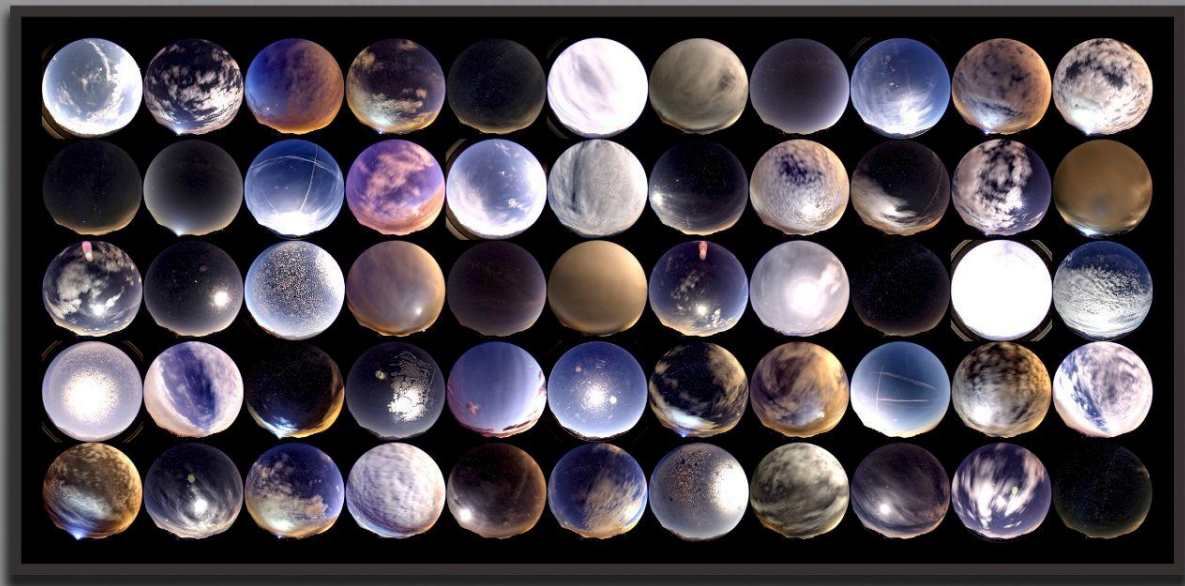


Birds / prints.



Light Stripes / prints.

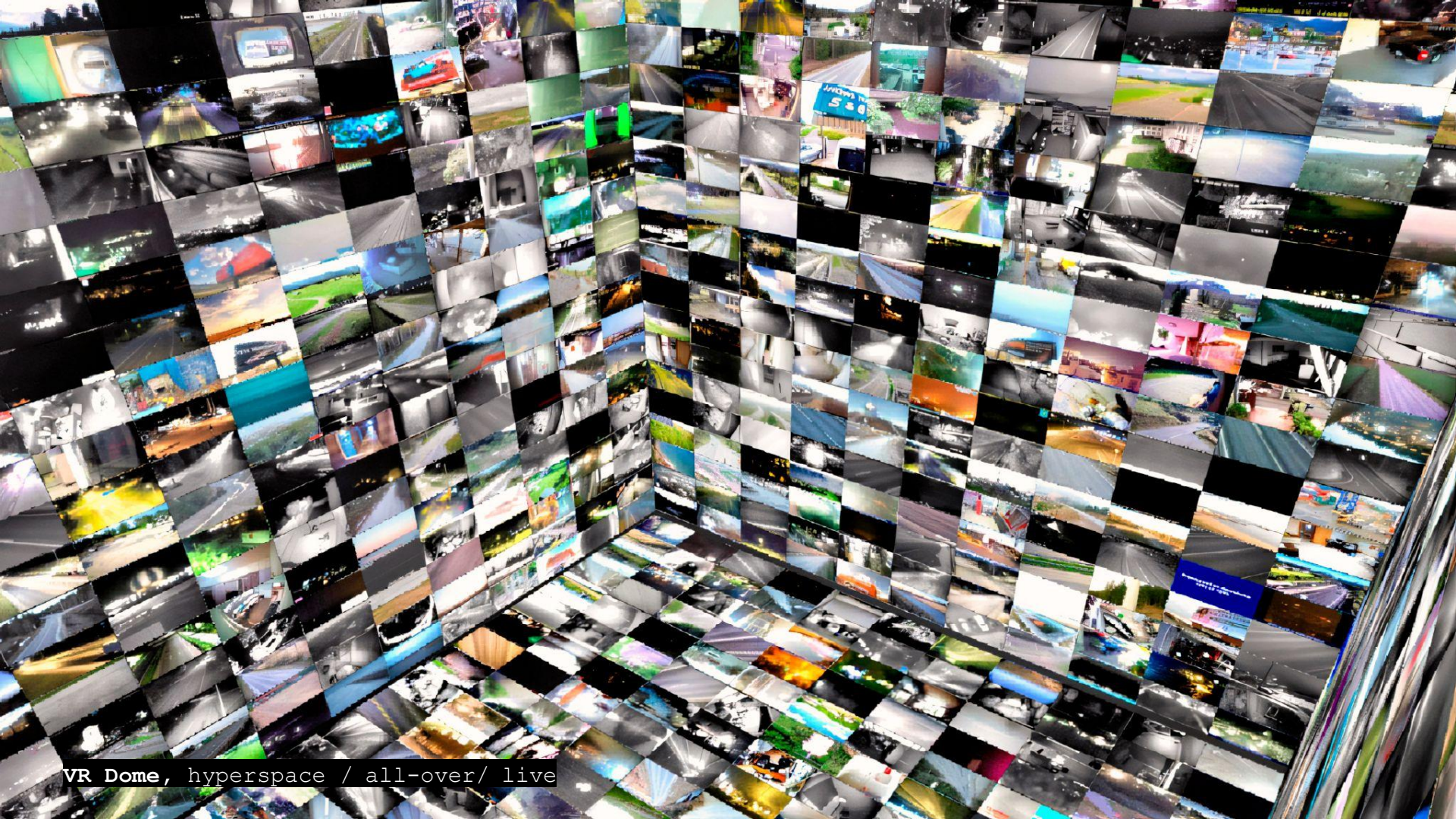




Heaven / print, 150 x 320cm, framed.



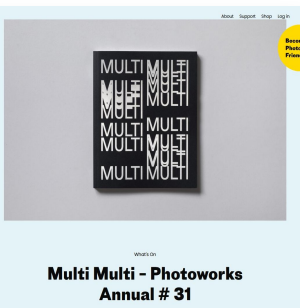
The Gatekeeper, 1'008'000 pictures, one cam, 700 days / Wallpaper.



VR Dome, hyperspace / all-over/ live

WATCHING THE WORLD: press reviews

Photoworks



Multi Multi - Photoworks Annual # 31

The New York Times

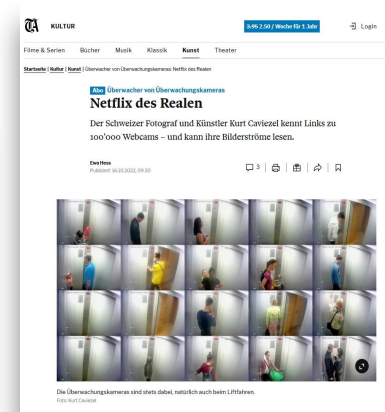
ART REVIEW

Photography's Shifting Identity in an Insta-World

Share full article



«Nous sommes dans l'ère selfie 1.0. L'ère du selfie»

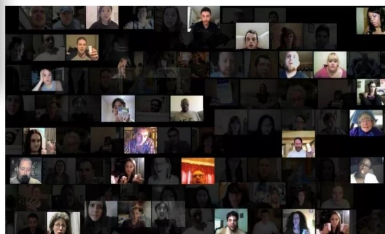


Newsweek

Entertainment Photography Visual Art Museums PhotoLab Museum Surveillance Social Media Andy Warhol

'Public, Private, Secret': This Exhibit Will Make You Think Twice About Your Webcam

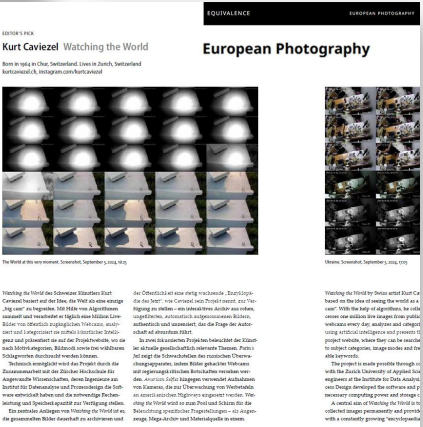
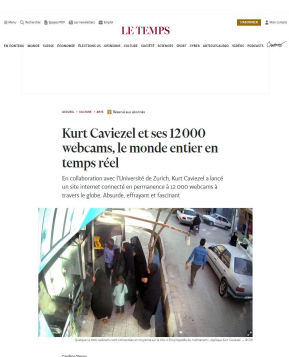
Published Jun 28, 2016 at 8:00 AM EDT Updated Jul 05, 2016 at 1:23 PM EDT



A view of Natalie Bookchin's "My Mesh," from the artist's "Internet" series. Bookchin's work is featured in the International Center of Photography's "Public, Private, Secret," the inaugural exhibit at its new space in Manhattan.



- 01 Election 2017: Donald Trump and Kamala Harris
- 02 How a Watchmaker's 'Gloria' Became a Fashion Statement
- 03 Taylor Swift's 'Gloria' Becomes a Fashion Statement



Artist Statement:

Artificial Intelligence (AI) and Photography

Watching The World collects live photographs from network cameras distributed across the globe – operating fully autonomously, without editorial selection, without a directing eye, and immediately visible on the network.

The cameras in our system share one condition: they are publicly accessible.

What they produce is a radical form of **documentary photography**: the world as it is, shaped by time, place, and contingency alone.

When **AI and photography** are discussed today, the conversation gravitates quickly toward image generators – algorithms that fabricate worlds from statistical patterns, producing images that are fluent, seductive, and fundamentally synthetic. These tools are consequential, and the questions they raise are real.

But **Watching The World** moves in exactly the **opposite** direction.

It uses artificial intelligence not to generate images but to **find** them – to locate and display photos that were just taken a few seconds ago, that exist and could not have been created **in any other way**.

Where AI image generation asks what a photograph **could** look like, **Watching The World** insists on what one **does** look like – without the flattering mediation of a model trained to produce images people find pleasing.

Where AI image generators produce artifice, **Watching The World** insists on **authenticity**.

Reality does not perform for the camera. It simply is – and what it is turns out to be far stranger, far more compelling, and far less manageable than anything a generator has yet produced.

What appears is **drastic reality**: scenes that are sometimes astonishing, sometimes unsettling, sometimes oppressively strange – confrontations with moments that have never been seen before and will not recur. The principle of the real moment, captured without intention or design, is not merely preserved here; it is made radical.

Watching The World is a **counter-model**.

Not a nostalgic one – the latest technology, including AI, is its instrument and its method. But as a demonstration that AI can **serve** the real world. A counter-model to the fantasy that the most interesting thing artificial intelligence can do with photography is to replace it. And that is **reason** enough for a counter-model.

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The Encyclopedia Of The Now»

KURT
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aw School of
Engineering

Go **live** and watch the real cctv-view on our **lives**:

<https://webcamaze.engineering.zhaw.ch/>

