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Haus der
elektronischen
Künste Basel

Shaping the Invisible World Digital Cartography as an Instrument of Knowledge

03.03.–23.05.21

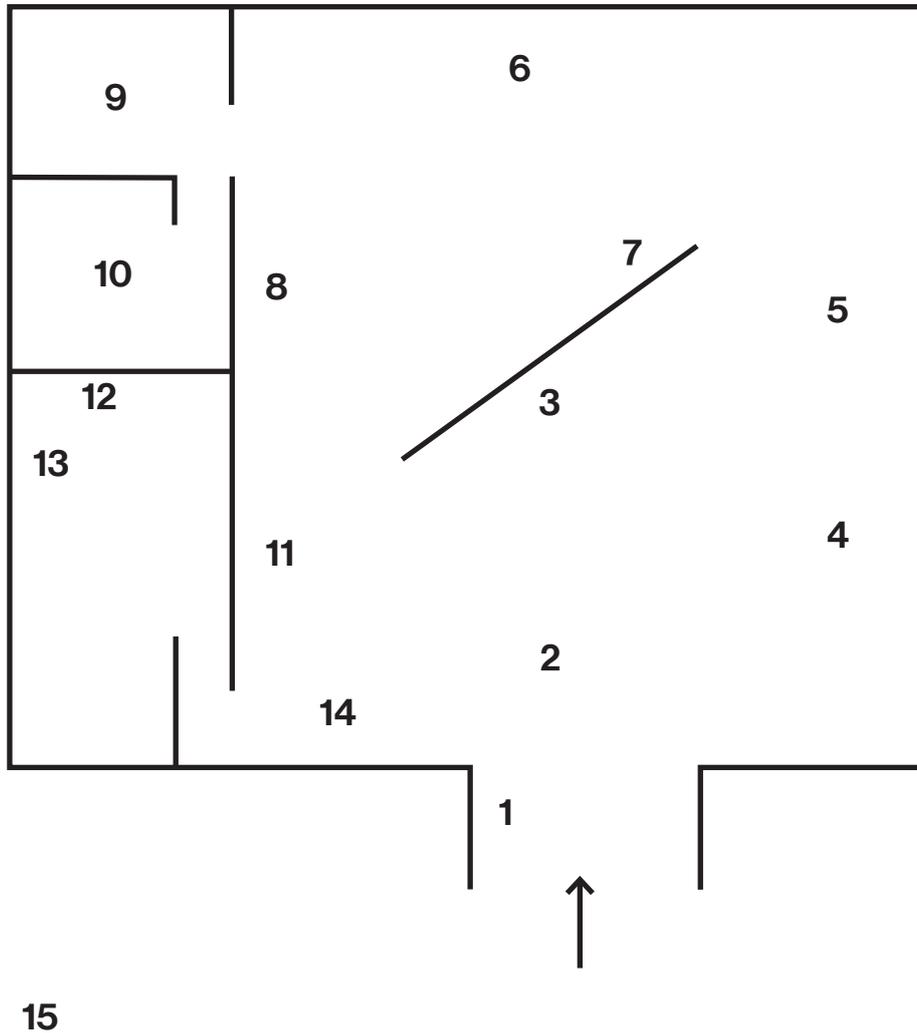
Shaping the Invisible explores, through cartography, representational forms of the map as a tool between knowledge and technology. The exhibition presents artistic positions that bring together poetic approaches with critical discourses on cartography, with a focus on digital technologies.

Cartography – the science of surveying and representing the world – developed in antiquity, and provided the basis for communication and economic exchange between people and cultures around the globe. Undeniably though, maps can never be neutral, as their production inherently involves intentions, interpretation and imagination. Since the mid 20th century, geographers and researchers have been investigating the subjective and partial character of maps, and how they are influenced by the economic or political interests of the people who finance and promote them. This questioning of traditional cartographic practices has been described in terms of counter-mapping and critical geography. Various cartographers have developed strategies to create alternative maps of the world and of scarcely studied political, social and economic realities. Artists have often participated in such initiatives, many of which are appropriately described as neo-geographers.

The advent of GIS (geographic information system) software, satellites and GPS have revolutionised cartography. However, they have also advanced a monopoly held by a few IT companies that create the geographical data we access. This profoundly affects how we see the world, and determines how we communicate, navigate and consume in it. At the same time, these digital tools have also opened up new possibilities for more democratic mapping practices. Issues of privacy, authorship, economic interests and Big Data management are more topical than ever and closely linked to contemporary cartographic practices. While access to maps was originally the privilege of ruling elites; today their wide availability enables and generates diverse individual perspectives of the world. Today's maps not only depict, but also document, negotiate and visualise subjective views of the world.

The strategies of the artists on view in the exhibition are subversive. Their spectacular panoramas, interactive installations and virtual scenarios reveal how digital technologies cultural affect our understanding of the world. By bringing hidden realities, inconspicuous developments and possible new social relations within a territory to light, these artists invite us to explore invisible worlds.

Curated by Boris Magrini and Christine Schranz



This exhibition is supported by:

die Mobiliar



österreichisches kulturforum^{brn}

HeK (House of Electronic Arts Basel) is supported by:



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1 Trevor Paglen
Circles (2015)

Trevor Paglen exemplifies the fusion of counter-mapping and art. His well-known photo series *Limit Telephotography* shows military bases and industrial complexes that are normally inaccessible due to land and airspace restrictions. For his photographs, Paglen utilizes professional techniques and lenses from astrophotography. In his series *The Other Night Sky* he create remarkable photographs, by contrast, using data collected by amateur satellite observers of surveillance satellites known to be orbiting Earth. To the naked eye these artificial celestial bodies cannot be distinguished from benign stars. The analysis of state surveillance systems, of their logic and how they function, is a recurrent theme in Paglen's work, for which he has repeatedly collaborated with other artists and researchers in his projects. The video *Circles* presented here surveys the surveillance system itself, showing an aerial view of the GCHQ (Government Communications Headquarters) filmed with a drone. The GCHQ, located near Gloucester, is an intelligence and security organisation, which provides information to the UK government and armed forces. It has been at the centre of controversies related to the abuse of surveillance and security protocols and the disregard of private data.

Trevor Paglen (*1974) is a American artist living and working in New York. He is trained as a geographer and photographer, holding a PhD in Geography from the University of California at Berkeley (2008).

2 Studio Above&Below
Digital Atmosphere (2020)

Studio Above&Below was founded by Daria Jelonek and Perry-James Sugden. Their installation *Digital Atmosphere* uses augmented reality (AR) to visualise local air pollution data. Formally inspired by early air pollution meters, translates live data to create an evolving virtual experience. With the AR-headsets, visitors are able to visually perceive air pollution, a normally invisible phenomenon, as a flocculent system. Although the visualisation of pollutants is intended as a poetic experience, the artists invite us to consider how we understand and discuss pollution. The conception of *Digital Atmosphere* emerged from conversations with scientists at King's College

London. The work's *Atmo Sensor* was developed in collaboration with the Swiss INT Studio.

Studio Above&Below is a London based artist duo founded by media artists Daria Jelonek and Perry-James Sugden in November 2017, after their graduation from the Royal College of Art, London.

3 Fei Jun
Interesting World installation 1 (2019)

Fei Jun's interactive video game offers of two modes of interaction. The first allows visitors to furnish a virtual world with more than 300 objects, reconstructions created by the artist from ordinary objects. These are rendered in real-time. In the second mode, visitors can use an iPad application in the exhibition space to enter the world. Users can participate in the virtual worlds and simulate diplomatic or imperialistic relations between each other by sharing resources, contributing to the construction of individual realms or sabotaging others. Despite having been scanned from real objects, the power of Fei Jun's universe is allegorical rather than representational. As an interactive social experiment, the work draws attention to the fact that any representation of a world is always a negotiation between different points of view.

Beijing-based artist Fei Jun holds an MFA in Electronic Integrated Art from Alfred University's School of Art and Design in New York. He is the head of CAFA Media Lab, an associate professor in interactive media art and design, China Central Academy of Fine Arts as well as a working artist and designer.

4 Jakob Kudsk Steensen
Primal Tourism (2016-2020)

Primal Tourism is a true-to-scale virtual replica of the tourist island of Borabora in French Polynesia, recreated from various sources such as plans, satellite images, tourist photos, images from scientific journals, drawings and historical reports. The narratives created by Jakob Kudsk Steensen tell us about the island's tourism, colonialism and technology from the perspective of a fictional future. Here the islands are abandoned and partially covered by water due to global warming. In an immersive environment viewers are free to explore real and fictional elements of Borabora's history and learn about events and

global ecological problems related to the island. The artist's approach opens up unconventional strategies for counter-mapping, such as premonition as a means of ethical reflection.

Jakob Kudsk Steensen (*1987) is a Danish artist based in New York City, working with environmental storytelling through 3d animation, sound and immersive installations. He studied Art and New Media in London and Copenhagen.

5 Total Refusal *Operation Jane Walk (2018)*

The performances of the artists Total Refusal (Leonhard Müllner & Robin Klengel) take place in the virtual arena of video games. The setting for *Operation Jane Walk* is the extremely realistic, dystopian reconstruction of Manhattan from the loot-shooter online video game Tom Clancy's *The Division* (Ubisoft, 2016). Jane Walks are an existing global movement, where volunteers organise urban walking tours with locals to share in conversations about their daily lives in their neighbourhood. While the logic of the video game requires players to join factions and engage in armed combat, the artists instead take a pacifist walk through the virtual reconstructions of existing buildings and discuss issues of architecture, history and urban planning, as well as the virtual reproduction of the city. Klengel & Müllner's performance shows how the reconstruction of a city in a virtual game can also be considered as a map capable of influencing the perception of a city, its history and identity.

Robin Klengel (*1988) works as a cultural anthropologist and artist in Vienna and Graz.

Leonhard Müllner (*1987) works as an outdoor space and video artist, architectural mediator and on a PHD in Game Studies.

6 Tega Brain, Julian Oliver and Bengt Sjöln *Asunder (2019)*

Ecology is an important field of research in geographical science. Artificial intelligence is employed to analyse climate processes and ecosystems, as well as calculate models for solving environmental problems. *Asunder*, a simulation programme based on a supercomputer and machine learning created by Tega Brain, Julian Oliver and Bengt Sjöln, predicts future climatic conditions and proposes possible measures to

tackle the climate crisis. The frequently absurd suggestions the supercomputer comes up with challenge the notion that ecological problems are predictable and can be remedied with technology.

Tega Brain is an Australian born artist and environmental engineer.

Julian Oliver is a artist, activist and critical engineer based in Berlin.

Bengt Sjöln is an independent software and hardware designer/hacker/artist based in Stockholm, with roots in the home computer demo scene.

7 Quadrature *Supraspectives (2020)*

8 Satelliten (2015)

Satellites are also in the spotlight of artist group Quadrature. Their latest installation, *Supraspectives*, draws on information from 590 spy satellites orbiting Earth, though some no longer in operation. The work calculates their trajectories and reconstructs their observations of Earth – in particular those passing above the exhibition site. Besides visuals of their flight paths, the installation provides information about the satellites, including their origin and function. Despite being an artistic reconstruction, the work reveals the reality of military satellites that constantly – often invisibly – scan the world's surface. Some of these military projects are publicly known, however, it is unclear how many more spy satellite projects are in operation beyond our awareness.

The installation *Satelliten* also shows the multitude of satellites in motion above the exhibition site. A plotter prints out their flight paths over the respective area on old maps on an area of 10 cm² in real time. This is repeated for each passing satellite until the map is completely covered with a black square.

Quadrature is a Berlin-based artist duo composed of members Juliane Götz, Sebastian Neitsch, and formerly Jan Bernstein (until 2016).

9 PolakVanBekum
The Fortune (2018)

10 *The Mailman's Bag* (2015)

Artists Esther Polak & Ivar Van Bekkum create walks and performances in the city and produce videos using geographic information system software such as Google Street View. They collate the representation of the city (or any other public space) with the actual experience of being there. During a residency in Philadelphia, they developed software to utilize geolocation to create videos from Google Street View and Google Earth, and synchronise them with audio recordings. For their work *The Mailman's Bag*, the artist duo collaborated with a postman, whose bag they equipped with an audio recorder and GPS device. The resulting video translates the GPS recordings into their corresponding Google Street View images to portray the neighbourhood through its postal delivery route.

The artists' most recent video, *The Fortune*, portrays a site dedicated to democratic civilian protests in The Hague using Google Earth. However, in this film there are no people, just a merry-go-round, which is installed there for a funfair once a year. It typifies a coincidence that occurs when using Google Street View, which depicts the place at a certain time, no matter whether the view actually reflects what usually happens there or not.

The Dutch artists Esther Polak and Ivar van Bekkum collaborate as an artist duo since 2010. Esther Polak is educated in fine arts and painting at the Rijksacademie in Amsterdam. Ivar van Bekkum is educated as a journalist.

11 James Bridle
Catch and Release (2018)

James Bridle's works employ GPS, geolocation software, meteorological data, drones and surveillance cameras, to which he brings a critical perspective on technology. *Catch and Release* explores the history of radar technology and its current developments, intertwining it with the history of surveillance and bird migration monitoring. For this work the artist was able to access the vast database of the Tour du Valat (a private foundation working for the conservation of Mediterranean wetlands in France), which contains over 600,000 flamingo sightings. Bridle investigates the tricky challenge of collecting, visuali-

sing and evaluating data in the study of complex phenomena by dramatizing these datasets with aesthetically compelling satellite images. The two-channel installation is connected online to a database on the artist's personal server. One channel shows entries from the bird observation database while the other visualises the geographical location mentioned in the entry with a kaleidoscopic composition. As a new line of data appears, the last is erased from the work's database.

James Bridle (*1980) is a writer and artist working across technologies and disciplines. They hold a Master's Degree in Computer Science and Cognitive Science from University College, London and published their Book „New Dark Age“ about Knowledge and Technology.

12 Persijn Broersen & Margit Lukács
Forest on Location (2020)

13 *Shvayg Mayn Harts* (2018)

Wild landscapes and their representation are often subjects of investigation for the artist duo Persijn Broersen & Margit Lukács. Their work *Forest on Location* is a three-dimensional geometric reconstruction and digital reproduction of part of the Polish national park Białowieza Forest, a UNESCO World Heritage Site since 1979. Despite this cultural protection, the Polish government has recently approved industrial logging, justified by the threat of spruce bark beetles. However, environmental organisations question the threat and believe logging is motivated exclusively by economic purposes. In the installation, a cover version of „Nature Boy“ sung by the Iranian singer Shahram Yazdani acoustically sets the scene, paying dramatic tribute to the precariously endangered ancient wilderness. The melody of the song, initially popularized by Nat King Cole, was in turn inspired by a song by the Yiddish composer Herman Yablokoff.

Yablokoff's original song *Shvayg Mayn Harts* has lent its title to another of the artists' works featured in the installation: a 3D print of a tree trunk, which serves as a projection screen and is a companion piece to the *Forest on Location* video. Using geographical research tools such as photogrammetry and mapping software, Broersen & Lukács' poetic work pays homage to a real landscape and offers a backdrop for political, cultural and ecological debates.

Persijn Broersen (*1973) und Margit Lukács (*1974) are living and working in Amsterdam. They studied at the Sandberg Institute and at the Rijksakademie in Amsterdam.

14 Bureau d'études / Collectif Planète
Laboratoire

Astropolitique, déplétion des ressources terrestres et devenir cosmique du capitalisme: une cartographie (2019)

The French artist duo Léonore Bonaccini and Xavier Fourt, who work under the name Bureau d'études, explore a field relatively closely related to traditional cartography and counter-mapping. Since the 2000s, they have been producing maps of geopolitical, economic and social situations, which reveal indiscernible dynamics of the capitalist system and colonial logic. Their maps are characterised by a creative use of information graphics. *Astropolitique*, their latest map, deals with asteroid mining and shows ongoing research into this as yet theoretical economic model, which is of increasing interest due to the pending terrestrial exhaustion of minerals needed for the production of computers, laptops and tablets. Their map also looks at social and environmental disasters that have already been caused by the extraction of these rare resources on Earth.

Paris-based artists Léonore Bonaccini and Xavier Fourt form the artist duo Bureau d'études. On the initiative of Ewen Chardronnet and the duo, the newspaper „La Planète Laboratoire“ was created in 2007. Since then they have shared editorial responsibility.

15 fabric | ch
Satellite Daylight, 47°33'N (2020)

The Swiss studio for architecture, interaction and research, fabric | ch, takes a look at the increasing prominence of satellites. The installation *Satellite Daylight, 47°33'N*, which was commissioned for the HeK collection, simulates the light monitored by an imaginary meteorological satellite orbiting the earth at the latitude of Basel at a speed of 7541m/s. Data from online weather stations and meteorological satellite maps are processed in real time, and translated to reflect the actual local light conditions of the areas above which the fictional satellite is located. In turn, the intensity of the 24 neon lights

varies depending on whether it is over a sunny or cloudy position, day or night. A screen shows a real-time weather map with the imaginary satellite. *Satellite Daylight, 47°33'N* draws attention to the existence of weather satellites and their influence on our understanding of the world and living conditions.

fabric | ch is a Swiss studio for architecture, interaction & research and is currently composed of Christian Babski, Stéphane Carion, Christophe Guignard and Patrick Keller (co-founders), Keumok Kim, Michaël Chablais.