



WEATHER GLASS OR CRYSTAL BALL?

Mapping the weather in art and science.

The invention of the crystal ball as well as of the weather glass are expressions of human curiosity and of the need to understand and to predict environmental conditions. They are two ways of investigating the world around us, both of them aiming to open up life and the world, and both of them conveying a story about the interconnection of art and science.

Scientists and artists capturing the weather - this is one of the elements that this project builds on. An approach that also takes into consideration historical pictures telling us about weather conditions in former times and about traces of the human impact on Earth's geology and ecosystems. And yet, it is also a project about contemporary conversations about contemporary weather, and about the urgency of re:understanding and re:enforcing that there is no life without weather and there is no living without climate.

Weather Glass or Crystal Ball? is a research project designed to take place in Glasgow, Oslo, Copenhagen and Stockholm with the aim of setting up an interdisciplinary laboratory to investigate how we experience and communicate about weather and climate change. This interdisciplinary approach will inform the hackathons as well as the artistic research and the final symposium.

Conversations about weather through a hackathon

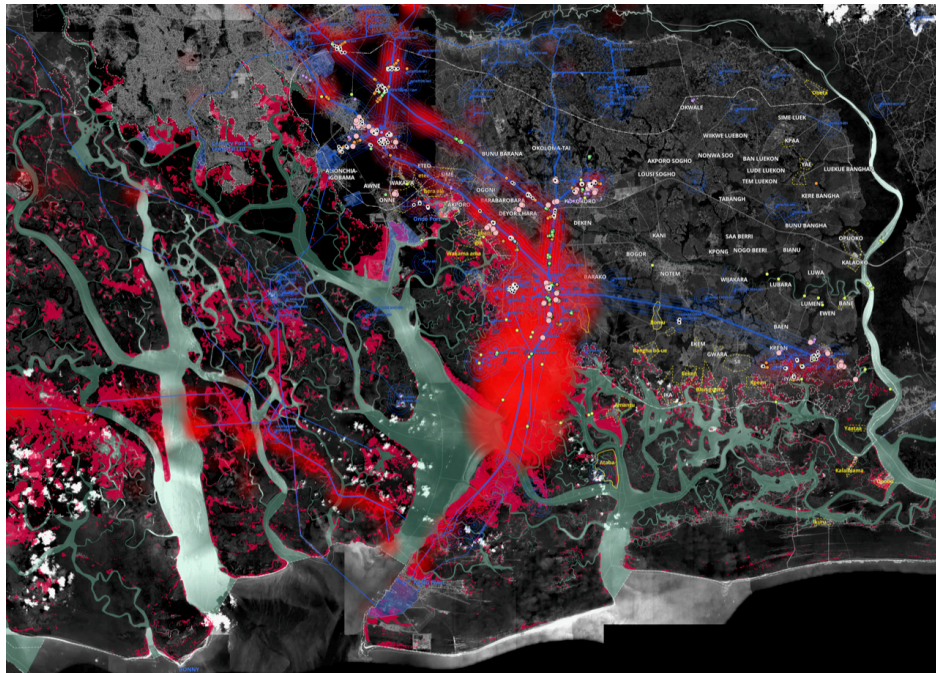
The hackathon should be considered as an interdisciplinary artistic research process which investigates how we relate or un-relate to weather. Do we fully understand that the extreme weather conditions we are experiencing depend on climate change? If so, how do we express this connection and can it be done by relating data on weather and climate with art? This hackathon is about exploring these potentials, by creating a close dialogue between art and science.

Key questions for the hackathon

- *Why do we communicate about the weather?*
- *How do we communicate about the weather?*
- *Feelings*
- *Images*
- *Sound*
- *Stories*
- *Data*
- *How do we relate to weather conditions and changes in an urban context and a rural context?*
- *What kind of historical and contemporary data can be used in order to visualize weather conditions and changes in the region of Glasgow?*

The senseBoxes

The senseBox is a do-it-yourself toolkit for stationary and mobile sensor stations and digital education in STEM subjects. It is available as senseBox:home - a weather station for citizen science, and senseBox:edu - a hardware set used in universities, schools and in private education. Both sets consist of a microcontroller, several sensors (e.g. temperature, air pressure, air quality etc.) and a gateway (e.g. WiFi, LoRa etc.) to upload measurements to the online platform openSenseMap.



© INTERPRT

INTERPRT

with **Svitlana Lavrenchuk** and **Filip Wesolowski**

[INTERPRT](#) is run by a group of researchers, architects and spatial designers dedicated to environmental justice advocacy. We believe freely available, open source geospatial data can empower civil society groups to leverage powerful environmental evidence in the fight against impunity.

We undertake long-term investigations on behalf of diverse groups as well as self-initiated research projects for which we produce advocacy videos, interactive maps and evidence files. We present our work in various forums: exhibitions, online platforms, writing for publications, and running workshops. We are part of the global campaign to make ecocide an international crime. We are part of the investigative team of Climate Counsel, an initiative by former UN lawyers who use their expertise in transnational crime and human rights protection to address the climate emergency.

Our long-term work gathers evidence on three situations of ecocide: EXTRACTION – environmental destruction and human rights violations related to mining, oil palm plantations and other forms of extraction; CLIMATE – the long chains of agency linking big oil to the impacts of global warming and NUCLEAR – the legacy of nuclear weapons testing in the Pacific.

Speakers

Our environmental forensic work supports local perspectives. We collaborate and cooperate with civil society organizations, international lawyers, scientists, NGOs, journalists and leading cultural institutions worldwide. Some of our past/current collaborators include Polly Higgins/Stop ecocide campaign, International Foundation Baltasar Garzón (FIBGAR), Movement for the Survival of the Ogoni People (MOSOP), International Lawyers for West Papua, Awas MIFEE, Princeton Science and Global Security, Global Diligence, London Mining Network, Deep Sea Mining Campaign, Office for Contemporary Art (OCA) Norway, Centre for Contemporary Art (CCA) Singapore, Biennale Warszawa, Arts Catalyst, Museum of Modern Art in Warsaw, Further Arts and Forensic Architecture.

© INTERPT



Svitlana Lavrenchuk (Spatial designer) is responsible for geospatial data analysis and design. She has an MArch from the Royal College of Art. Her research interests include interdisciplinary responses to climate change in the Arctic. Recently she took part in the 2019 Oslo Architecture Triennale. She is also practicing architecture in London.

© INTERPT



Filip Wesołowski (Researcher) is responsible for archival, open source intelligence, producing audiovisual content and exhibition production. He holds an MA from interdisciplinary studies at the Collegium Artes Liberales from the University of Warsaw.

<http://www.interprt.org/about/>



KATAPULT: The magazine from Greifswald
with **Patricia Haensel**

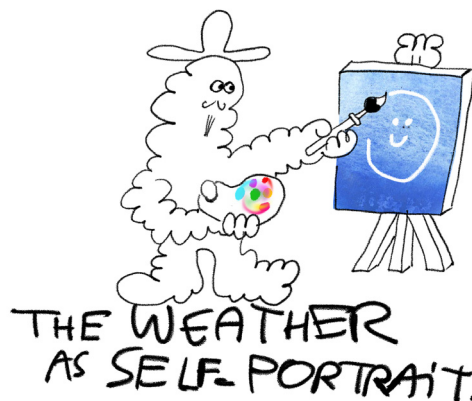
[KATAPULT](#) is a non-profit company that publishes magazines and books about cartography and social sciences. The magazine with a great online reach talks about politics, economy, law, language and history as well as fun facts. The mission is to communicate complex scientific findings to a broad mass by making it accessible in a creative and popular scientific way. By doing this, KATAPULT contributes to public discourses and discussions with scientific facts and perspectives. Also, KATAPULT plants its own forest, has a cafeteria and food truck and is a book publisher.



© KATAPULT

Patricia Haensel: Ms Patricia Haensel studied Business Administration in Germany and Mexico, concluding it with a double degree in 2018. Since then, she worked as a saleswoman in a mexican craft beer company and after that she incorporated herself in KATAPULT in April 2020. Over there, she is responsible for various projects, including the planting of the forest, the book editorial, internal organization and many more. Also, she has written some articles and maps online.

<https://katapult-magazin.de/ueber-katapult/>



© Timothée Ingen-Housz

Timothée Ingen-Housz

[Timothée Ingen-Housz](#) was appointed professor at the University of the arts – Berlin in October 2015.

His journey back to Education started at the Ensad (Paris), where he graduated with the experimental logographic writing system “Elephant’s Memory, an interactive visual language”. Relocating in Cologne in the late 90s, he founded “phosphen”, an interdisciplinary creative studio for “screen, stage and page”, and realised audiovisual concepts for a variety of clients (mtv, WDR’s Quarks& Co, arte, 3sat, Residenztheater, JwT, McKinsey, Telekom, etc...). Starting his “world teaching tour” while still a student, he held lectures and workshops at: Ensad, Harvard film faculty, Goldsmiths University of London, Academy of Media Arts Cologne, KISD, Bauhaus University, and finally the UDK Berlin, where he now teaches “audiovisual conception and dramaturgy” in the department “Communication in Social & Economic Contexts”. He is regularly collaborating with HIIG (Humboldt Institut for Internet and society) to research the use of storytelling methods in educational projects and science communication.

Today, his primary interest is the creation of narratives designed to improve the persuasive communication of complexity. He is investigating comics, movies, news, serials, games, performances, graphics, spacial and virtual environments, - anything potentially narrative in any form and format, - in any context and for any purpose, to find new ways to convey complex informations and/or engage audiences in the discovery of their implications. The persuasive potential of audiovisuals is to be researched through the kaleidoscope of their reception modalities: we shall not only “design stories about the way nature works” for specific audiences, but work with storytelling as a participatory process involving stakeholders in the narrative representation of a world they are actively engaged in; - only so can we expect knowledge to turn into action.

<https://gwk.udk-berlin.de/personen/ingen-housz/>

Collaborators

Goethe-Institut Glasgow:



© A+E Collective: Finn, left and Maria, right. 2/4 members of A+E. Image from Trauma Response Unit, Generator Project, NEON Fest, 2018.

A+E Collective (Glasgow) with Finn Arschavir and Maria Sledmere

[A+E](#) is a multidisciplinary collective born out of a shared sense of discomfort in the face of climate disaster, with an urgent desire to use our creative voices to think through existing discourses on ecological precarity, coexistence and sustainable practice in both local and planetary contexts.

Maria Sledmere is a writer and artist finishing a DFA in Creative Writing at the University of Glasgow. She is editor-in-chief at [SPAM Press](#), a member of [A+E Collective](#), editor at [Dostoyevsky Wannabe](#) and occasional music journalist. She co-hosts a podcast, URL Sonata, and workshop series, Pop Matters. Recent publications include nature sounds without nature sounds (Sad Press), Rainbow Arcadia (Face Press), infra•structure – with Katy Lewis Hood (Broken Sleep), Chlorophyllia (OrangeApple Press) and neutral milky halo (Guillemot Press). With Rhian Williams, she co-edited the weird folds: everyday poems from the anthropocene (Dostoyevsky Wannabe).

Finn Arschavir is an artist, designer and filmmaker working across disciplines. He is co-founder of A+E Collective and recently produced their podcast '[The Biosystems Recordings](#)'. Last year, he worked with the Scottish Sculpture Workshop to research and investigate their environmental impact, infrastructure, materials and supply chains. He currently volunteers as a digital community worker in response to the current COVID situation and in the past has worked with MTV, BBC, BFI Film Institute, Map Magazine and El Rancho Records on a range of projects.

<https://aecollective.earth/Information>

Collaborators

Goethe-Institut Glasgow:



© Alison Scott: 'Rain, or such-and-such impressions'. MAP Magazine X Glasgow Film Festival at CCA, Glasgow, March 2020. Photo: Laura Edbrook.

Alison Scott

[Alison Scott](#) is a Glasgow-based artist and writer. Her work is research-led and context specific, driven by interests in expanded performance, moving-image and writing practices, and speculative approaches to knowledge production. She centres embodied experience, using the performativity of language and voice to deal with climate, geology, and socio-economic aspects of landscape. Alison often works with other artists on projects, and is invested in building relationships and collaborations through the production and dissemination of contemporary art.

Alison is a participant in the Satellites 2020 Programme at Collective in Edinburgh, where as Associate Producer she has been working on a project titled 'Can we talk about the weather'. She is currently working on the project 'CRUDE', curated by Aberdeen-based curator Rachel Grant, looking at relationships to oil. Alison is due to undertake a funded residency at Cove Park in 2020. She has been Reviews and Projects Co-editor at MAP Magazine in 2020 with collaborator Rosie Roberts, and completed the MLitt in Art Writing at Glasgow School of Art in 2019.

www.alison-scott.co.uk

Collaborators

Goethe-Institut Glasgow:



© Caroline Sinderson photographed by Sarah Wang.

Caroline Sinderson

[Caroline Sinderson](https://carolinesinders.com) is a machine-learning-design researcher and artist. For the past few years, she has been examining the intersections of technology's impact in society, interface design, artificial intelligence, abuse, and politics in digital, conversational spaces. Sinderson is the founder of Convocation Design + Research, an agency focusing on the intersections of machine learning, user research, designing for public good, and solving difficult communication problems. As a designer and researcher, she has worked with Amnesty International, Intel, IBM Watson, the Wikimedia Foundation, and others.

Sinderson has held fellowships with the Harvard Kennedy School, the Mozilla Foundation, Yerba Buena Center for the Arts, Eyebeam, STUDIO for Creative Inquiry, and the International Center of Photography. Her work has been supported by the Ford Foundation, Omidyar Network, the Open Technology Fund and the Knight Foundation. Her work has been featured in the Tate Exchange in Tate Modern, Victoria and Albert Museum, MoMA PS1, LABoral, Ars Electronica, the Houston Center for Contemporary Craft, Slate, Quartz, Wired, as well as others. Sinderson holds a Masters from New York University's Interactive Telecommunications Program.

<https://carolinesinders.com>

Collaborators

Goethe-Institut Sweden:



© Rut Karin Zettergren: The image is a documentation of the performance Nina, K and Connie by Chotrina Frere, Anna Kinbom and Rut Karin Zettergren at Tallinn Feminist Forum 2019. Photographer: Erika Tserkašina.

Rut Karin Zettergren

[Rut Karin Zettergren's](#) (Sweden) work often begins as an investigation into historical events or speculations about the future. In recent years, she has been influenced by theories and histories around techno and cyborg feminism, science fiction and the construction of modernity. Her works take the form of drawings, performances, video, VR, spatial installations or online presentations. Rut Karins projects have been presented at Mänttä Festival, Sinne, Titanic gallery (FI), Barbican Centre, FACT Centre, Arnolfini (UK) Oberhausen Int. Film Festival, Taiwan Int. Video Art Exhibition (TW), Impakt Festival, Rotterdam Int. Film Festival (NL), Havana Biennale (CU), West Space (AU), Göteborgs Konsthall, Tensta Konsthall and Galleri 54 (SE). In 2019, she received the art award *Den tänkande Handen*.

For more information and art see www.rutkarinzettergren.se .

Collaborators

Goethe-Institut Sweden:



Jens Evaldsson

Based on human behavior and social interaction, Evaldsson activates social spaces through different types of interventions that in turn create new contexts and realities. Evaldsson works idea-based but often formative with the materials and methods that are best suited for what he wants to achieve: an opportunity to have conversations about what it's like to be human with others. By organizing groups, situations and venues for meetings, conversations, negotiations and collaborations, the result is sometimes exhibitions, but as often a new discursive and social space at an existing institution or in a social context. Sometimes in the water!

Questions about how to subtly and subversively shift perspectives and open up for new understandings have interested Evaldsson since his studies. His methods have varied overtime and today they go through DIY (Do It Yourself) and the maker culture, trans-disciplinary surveys, student collaborations, technological developments and inventions of all kinds together with embracing of sub and taste cultures. In Evaldsson's world all this is put in relation to politics, psychology, dramaturgy, art theory, history and philosophy. And the eternally unanswered question – how did we become who we are and how can we live together?

Text by Maria Lantz, Principal Konstfack, Former Associate Professor Royal Institute of Art.

Collaborators

Goethe-Institut Norway:



© Martha Andrea Denneche

Martha Andrea Denneche

Martha Andrea Denneche is a landscape architect. Denneche did her Masters Degree at the Norwegian University of Life Sciences (NMBU) in Ås with an exchange semester at Wageningen University & Research (WUR) in Netherlands. During her study at WUR, the main topic was how to design in regards to local climate in urban landscape. This inspired Denneche to write her master thesis *Climate Comfort in Urban Spaces*. For five years she worked as a landscape architect at Rambøll with many different projects ranging from schools, infrastructure and housing areas. She is soon working at BOGL, starting their new office in Norway. In 2019 Denneche was selected as one of fortyseven young future leaders at the Urban Future Global Conference on the basis of the commitment to local climate in urban design and landscape architecture.

Collaborators

Goethe-Institut Denmark:



© Xenia Brown Pallesen

Xenia Brown Pallesen

Xenia Brown Pallesen is a Master student of Art History at the University of Copenhagen. During her studies she has shown a profound interest in the intersections between art, technology, architecture, nature, climate and biodiversity. This interdisciplinary standpoint has created the basis for her examination of the impact of climate related art and its unique ability to touch people on a personal level thereby initiating more sustainable actions for a healthier planet. In addition, Xenia is looking into how dissemination of art can be used as a tool to create a deeper understanding of self, of each other and surrounding environments.

Xenia has previously participated in international student conferences in order to gain a greater insight of art historian research on a global scale. Among her presentations was an examination of our conception of nature in regard to art and how it has been portrayed through history. Likewise, she co-organized in 2018 an interdisciplinary international student conference, which focused on how technology influences contemporary art and how art can play a central role in future technological developments. Throughout the past year she has been working at ART 2030 on the development of an Impact Strategy for UN SDGs and art related projects. In regards to her master thesis she recently held a dissemination workshop at Copenhagen Contemporary International Art Center, while future similar projects are to come in 2021.

Felix Erdmann

Felix did his Masters Degree in Geoinformatics in Münster and is currently working at re:edu, the spin-off of the senseBox project. He is primarily working as a software developer on open source projects like openSenseMap or OriGami, an learning analytics application. Furthermore, he is working with different IoT platforms and technologies.

Franz Sitzmann

Already as a pupil Franz spent a lot of time in the robotics group. He not only tinkers and works himself, but also likes to empower others. Whether as a trainer in sports or as a trainer for inventors. As a computer scientist, he is well versed in programming and likes to know how to code hardware.

Giulia Paparo

Giulia studied philosophy and foundations of quantum mechanics in Italy, the Netherlands and Germany. She has always been passionate about bringing science and philosophy together by engaging the broader public with science and its philosophical questions. She has been involved in running Science Hack Day Berlin and related Meetups, facilitating a community dedicated to bringing together science, art and other disciplines. As a project lead at Junge Tüftler she is focused on exploring together with kids and adults how fun learning through coding and making can be and co-developing new ideas for the future of education.

Juliane Springsguth

Juliane studied leisure and media studies in Bremen and Berlin and holds a M.A. in language and communication. In her work as a project lead at Junge Tüftler she has the great opportunity to combine her creative ambitions with developing prototypes as well as her passion to share her knowledge about coding & making with multipliers. In the last two years she has put a focus on co-creation, design thinking and developing ideas in a team.

Agenda 12. - 13. November 2020

Please note that the times listed below refer to UK time **(GMT)**!

Time (GMT)	Duration	Schedule
Day 1: 11/12/20		
09:00	01:00	Welcome & Introduction (each 10 mins plus questions) <i>Jutta Gehrig (Director at Goethe-Institut Schweden)</i> <i>Goethe-Institut Glasgow/Stockholm</i> <i>LABLAB</i> <i>Alison Scott</i> <i>Junge Tüftler</i>
10:00	01:00	Data Literacy
11:00	00:15	Break
11:15	00:30	Speaker input <i>KATAPULT</i> with <i>Patricia Haensel</i>
11:45	00:30	Speaker input <i>INTERPRT</i> with <i>Svitlana Lavrenchuk & Filip Wesolowski</i>
12:15	01:00	Lunch Break
13:15	00:15	Warm Up
13:30	01:30	Workshop A Workshop B
15:00	00:10	Break
15:10	00:10	Building teams
15:20	01:30	Brainstorming session Empathise & Define & Ideate
16:50	00:20	Pitch Presentation (short)
17:10	00:20	Check out and Q&A
Day 2: 11/13/20		
09:00	00:15	Welcome
09:15	00:25	Speaker Input <i>Timothée Ingen-Housz</i>
09:40	02:00	Working in teams
11:40	00:15	Break
11:55	01:05	Coaching session
13:00	01:00	Lunch Break
14:00	00:15	Warm Up
14:15	02:00	Working in teams
16:15	00:30	Coaching session
16:45	00:30	Pitch Presentation (long)
17:15	00:15	Group discussion and feedback
		Break teams
17:30	00:30	Ceremony & Check Out

Tools we use

Hop in

Hopin is a virtual venue with multiple interactive areas that are optimized for connecting and engaging. Attendees can move in and out of rooms just like an in-person event and enjoy the content and connections you've created for them.

<https://hopin.to/>

Miro

The online collaborative whiteboard platform to bring teams together, anytime.

Miro helps at engaging distributed and remote teams in brainstorming, processes, workshops and decision making with digital workspaces – just as easily as if everyone were in the same room.

<https://miro.com>

RAW graphs

RAW Graphs is an open source data visualization framework built with the goal of making the visual representation of complex data easy for everyone. No code or design skills required. With Raw graphs everyone is enabled to create beautiful charts, maps & tables.

<https://rawgraphs.io>

p5js

p5.js is a JavaScript library for creative coding, with a focus on making coding accessible and inclusive for artists, designers, educators, beginners, and anyone else! p5.js is free and open-source because we believe software, and the tools to learn it, should be accessible to everyone. p5.js is a community interested in exploring the creation of art and design with technology.

<https://editor.p5js.org/>

Literature recommendations and recommended web pages

- sensebox.de
- opensensemap.org
- Mauri, M., Elli, T., Caviglia, G., Ubaldi, G., & Azzi, M. (2017). RAWGraphs: A Visualisation Platform to Create Open Outputs. In Proceedings of the 12th Biannual Conference on Italian SIGCHI Chapter (p. 28:1–28:5). New York, NY, USA: ACM. <https://doi.org/10.1145/3125571.3125585>

Results of the Hackaton

The results and ideas which are created and shaped by the collaborators throughout the Hackathon will be published on the LABLAB website and Goethe-Institut websites. Please note that these ideas are published as open source material for further editing (from third parties, individuals, organisations, creative labs or institutions etc.).

We believe that sharing is caring and that Open Source Software and Open Educational Resources (OER) can help us shaping a better society, therefore in this Hackathon we use only OER and use Open Source Software whenever possible. Open source promotes universal access via an open-source or free license to a product's design or blueprint, and universal redistribution of that design or blueprint. Open Educational Resources are teaching and learning that reside have been released under an intellectual property license that permits and encourage sharing, accessing, repurposing and collaborating with others.”
(See OER Fact Sheet for more information.)

Concepts and formats

The project ‘Crystal Ball or Weather Glass? Mapping the Weather in Arts and Science’ structurally consists out of three formats (Hackathon, symposia, artistic elaboration), which deal with the topic of sustainability and climate change from an interdisciplinary and aesthetic perspective. Furthermore, it encourages the audience to be part of an emotional, interactive approach to the topic of climate change. Therefore, the project links the visualisation of local weather data sets – assisted by AI technologies and the design of a browser based tool – with local urban developments and predictions of how the climate historically has shaped and will shape local urbanity itself as well as its inhabitants.

The three formats contain a transformation from digital open source weather-data sets (recorded by SenseBoxes installed at the Goethe-Instituts) to present historical and future climatic influences on social and urban development which are merging into an artistic piece.

Leading questions: What are the social, political and urban impacts of advancing climate change in Northwest Europe? How can these processes of change be experienced emotionally and aesthetically? Are there any empirical values that could be relevant in the exchange between the countries of Northwest Europe? How can these be visualised?

Aims of the project

1. Hackathon

The aim is to visualise weather data sets in a new, innovative way. The visualised ideas will be published as open data sources on a digital platform with the possibility of further editing in sense of artistic and social participation (support of civil societal and democratic processes). Participants: regional partners, designers, game developers, students from relevant disciplines.

2. Symposia

Interdisciplinary exchange and network possibilities with a focus on local urban development in regards to the influence of climate change – between experts working in the arts, science, urban development and sustainability (input for artistic elaboration and the broader public).

3. Artistic elaboration

Artistic intervention in public or digital space which addresses the audience directly in their respective living environment and involves them in an aesthetic-emotional way with a participatory approach and beyond scientific insight.

Program 2020 - 2021

Hackathon session nr 1:
Hackathon session nr 2:
Artistic Research:
Final Symposium:

Glasgow, 12-13 November 2020
Oslo Spring 2021
Spring 2021 - Fall 2021
Stockholm Fall 2021



Initiators



Julia Carolin Kothe (Goethe-Institut Glasgow)
Daphne Springhorn (Goethe-Institut Schweden)

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LABLAB

A research and design think tank dedicated to understanding the social, ecological and spatial transitions in the Nordic and Baltic Sea Region.

[LABLAB](http://lablab.se/) explores the potential of linking theory and practice to identify and work within new classifications and configurations of the built and unbuilt environments. Disciplines, expertise and experience coalesce in cross-sectorial and trans-disciplinary collaborations to move beyond existing means of interpretation and innovation.

<http://lablab.se/>