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ArtLab Annual Report 2020

Introduction

The year of the outbreak of COVID-19 coincided with an important phase of transition for EPFL ArtLab. The first lockdowns occurred during the extension of the exhibition Infinity Room 2, leading to its online migration in a 3D virtual tour.

Prior to the first closures in march 2020, yet coinciding with the loosening of COVID-related restrictions, EPFL ArtLab was able to host a sequence of events and pop-up exhibitions in collaboration with numerous partners, among them CDH Culture with UNIL, Sound Painting and Théâtre Sévelin 36, the Computer Music and Sound Technology at the Zurich University of the Arts (ZHdK), the International Film Festival and Forum on Human Rights with Ingénieurs du Monde, and GIFF Plug for our Outdoor Cinema. In September 2020, Datasquare hosted the successful launch event for the muse program, an EPFL Laboratory for Experimental Museology (eM+) research project. Finally, the Prix Pictet exhibition 2020, *Hope*, confirmed our annual collaboration with the Prix Pictet global award in photography and sustainability, while concluding the programming presented under the EPFL ArtLab brand.

Throughout this period, we worked to define our new identity through a manifesto, and in an international search an appropriate design studio to launch our new brand "EPFL Pavilions" with a fresh look. In the summer of 2020, the German design studio Knoth & Renner won the international competition, and began working in collaboration with the firm Lamm & Kirch on the new logo and corporate identity. Designing this new identity also included creating signage for each of EPFL's Pavilions, with each Pavilion

being clearly identified as A, B, C, as well as a new website, and the design of the inaugural exhibition, *Nature of Robotics: An Expanded Field* (November 6, 2020 to February 2, 2021 and December 11, 2020 to May 16, 2021).

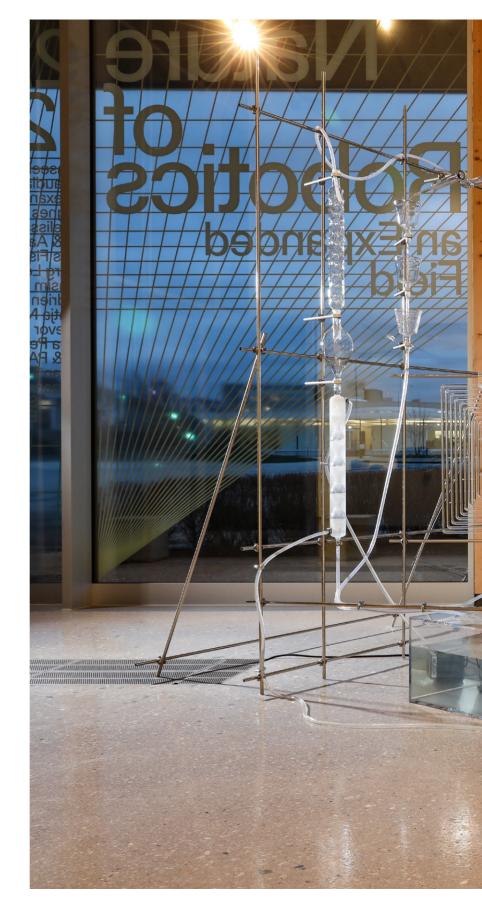
Around the world, COVID-19 introduced a novel sense of precariousness. The role of technology has also been questioned in light of a global phenomenon that has challenged us at the most fundamental levels. The virus outbreak first disrupted our bodies and then our habits, intensifying our dependence on technology for survival and communication. At the origins of the pandemic were the consequences of our conflicted relationship with the environment and the violent alteration of ecosystems. The disruption caused by the pandemic reframed all our concerns: on a deeply intertwined scale, animals and humans, the environment, biology and technology. Today, all of these elements seem to be interdependent factors in an ongoing, global crisis. All of them are actors and agents of what could be an overcoming or even transcendence of its destructive forces.

The EPFL Pavilions exhibition, *Nature of Robotics: An Expanded Field* was conceived to widen the scope of these reflections. Questioning robotics as a science, it revealed how technological advancements and developments are structurally dependent on a process of investigation and learning through the "observation" of the natural world. Opening a realm of speculation common to scientific and artistic research, the exhibition investigated the interdisciplinary concerns of robotics today, as well as its impact on society and environment.

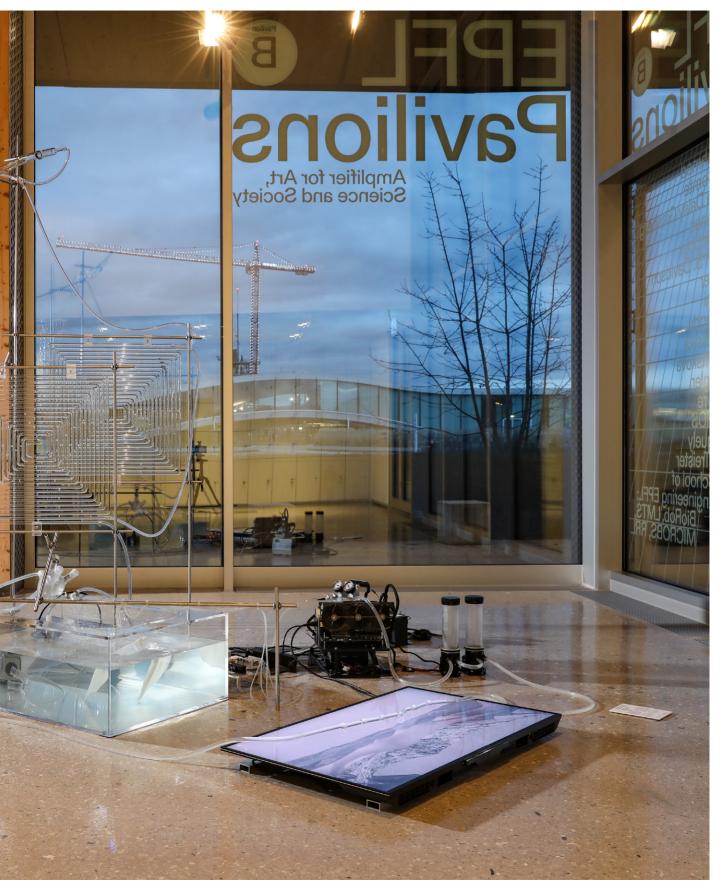
Curated by Dr. Giulia Bini, *Nature of Robotics* borrowed Rosalind Krauss's notion of the "expanded field of sculpture", to delineate a trajectory from land art to contemporary practices, and establish a platform on which contemporary artists could be in dialogue with EPFL roboticists. Creating an inter-generational and inter-disciplinary dialogue, the exhibition included existing work by major artists such as Jean Tinguely, Urs Fisher, Basim Magdy, Agnes Denes, Suzanne Treister, Katja Novitskova, Alexandra Daisy Ginsberg, Trevor Paglen. There were also new productions by the artist duo Melissa Dubbin & Aaron Davidson (EPFL CDH AiR with the BioRobotics Lab), and another by the artist Haseeb Ahmed. The exhibition also showcased the research of EPFL Biorobotics Laboratory / Prof. Auke Jispeert, EPFL Soft Transducers Laboratory / Prof. Herbert Shea, EPFL MicroBioRobotic Systems Laboratory / Prof. Selman Sakar, and the EPFL Reconfigurable Robotics Laboratory / Prof. Jamie Paik.

Despite the lockdowns imposed by the COVID-19 waves, EPFL Pavilions' new identity made its first appearance across Lausanne as well as on online platforms through the launch of its logo and brand on our social-media profiles, and at the exhibition *Nature of Robotics*. This vision and effort prepared the ground for the complete transition and full deployment of EPFL Pavilions' new phase in 2021.

Prof. Sarah Kenderdine ArtLab Director and Curator



Melissa Dubbin & Aaron S. Davidson Delay Lines, (feedback), 2020 Commissioned and produced in the framework of the CDH Artist in Residence programme 2020 Courtesy: the artists Nature of Robotics: An Expanded Field, 11.12.2020 - 25.04.2021, EPFL Pavilions



ArtLab Annual Report 2020

2020 Programs and Activities

Major Exhibitions – ArtLab, Pavilion B

Despite the COVID-19 global health crisis and eight months of closure, ArtLab, Pavilion B was privileged to host three exhibitions in 2020. *Infinity Room 2*, which was to be extended for a few weeks, had to close prematurely. The 2020 Prix Pictet exhibition, *Hope*, was held on schedule, granting us all a glimmer of hope towards a return to normality. Launched at the end of the year after three postponements, while *Nature of Robotics – An Expanded Field* only opened for a few days before being closed again.

Faced with forced closure for eight months, we considered other options as we tried to offer a measure of continuity in terms of cultural experience. As our audience was homebound, we decided to bring the exhibitions to them. All three 2020 exhibitions were thus scanned and presented via Matterport 3D Virtual Tours, so they could be accessed and explored online.

Infinity Room 2

September 13, 2019 to March 29, 2020

> Infinity Room 2 delved into the archives of EPFL, in a large-scale collaborative effort across numerous laboratories. Through Archives, Assemblages & Amusements, the exhibition investigated diverse ways to evolve institutional archives, and challenged the dominant history of archive-making. Using augmented reality, virtual reality, information visualization, interactivity and machine learning, Infinity Room 2 was a contemporary Wunderkammer of art and science bringing together over 50 EPFL laboratories.

→ For more details, please refer to 2019 Annual report



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Hope, Prix Pictet 2020

September 4 to October 4, 2020

Description

At the start of the 2020 academic year, ArtLab hosted the Prix Pictet for the second time. This travelling exhibition entitled *Hope* opened at the Victoria and Albert Museum in London, then travelled to Tokyo, Zurich and Moscow before opening its doors at ArtLab, Lausanne. The show displays the work of the 12 finalists of the Prix Pictet 2019, selected from more than 600 artist submissions. The images reveal moments of triumph in the face of adversity, and the fruits of the labor of all those dedicated to preserving the environment. A true testament to how optimism can spur change.

In a ceremony at the Victoria and Albert Museum in London, Ivory Coast photographer Joana Choumali was presented with the eighth Prix Pictet for her series *Ça Va Aller* on this edition's theme of hope. Her winning series presents photographs taken three weeks after the terrorist attacks in Grand Bassam, Ivory Coast, on Sunday, March 13, 2016.

(5)

List of contributors

- → Shahidul Alam
- → Joana Choumali
- → Margaret Courtney-Clarke
- → Rena Effendi
- → Lucas Foglia
- → Janelle Lynch
- → Ross McDonnell
- → Gideon Mendel
- → Ivor Prickett
- → Robin Rhode
- → Awoiska van der Molen
- → Alexia Webster

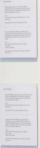










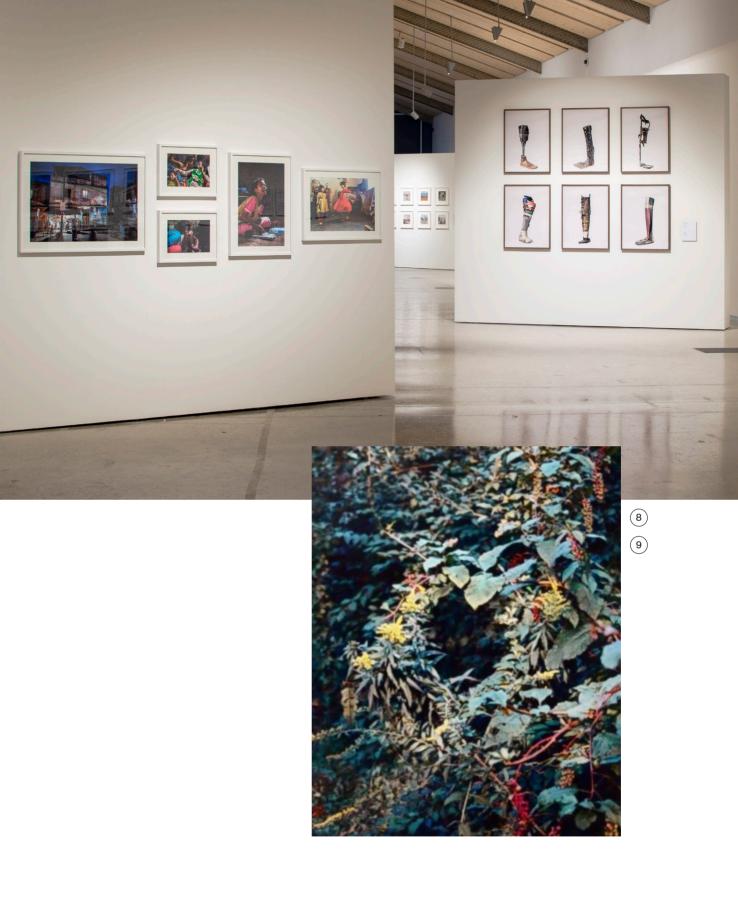












Nature of Robotics: An Expanded Field

December 11, 2020 to May 16, 2021

Description

Nature of Robotics, An Expanded Field aimed to encourage reflection on the emerging perspectives and scenarios in the field of Robotics. The premise of the exhibition was to offer an unconventional insight into this rapidly expanding field. The presence of works of art together with scientific prototypes born right here in the EPFL labs allowed for a broadening of the viewer's perspective on the possible consequences of Robotics on our society. The presence of modular, reconfigurable, flexible, micro- and bio- robots reflects a few of the emerging scenarios in this constantly evolving discipline.

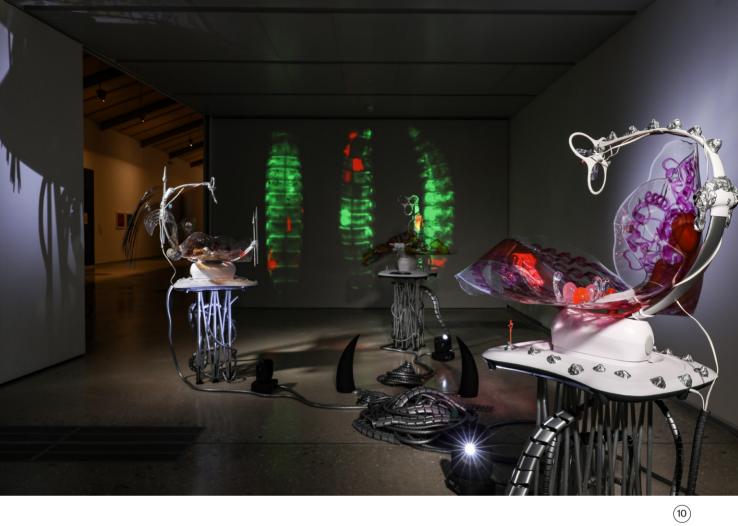
EPFL laboratories

- → EPFL Biorobotics Laboratory
- → EPFL Soft Transducers Laboratory
- → EPFL MicroBioRobotic Systems Laboratory
- \rightarrow EPFL Reconfigurable Robotics Laboratory

This project was developed in collaboration with the National Centre of Competence in Research, under the Swiss National Science Foundation.

Artists

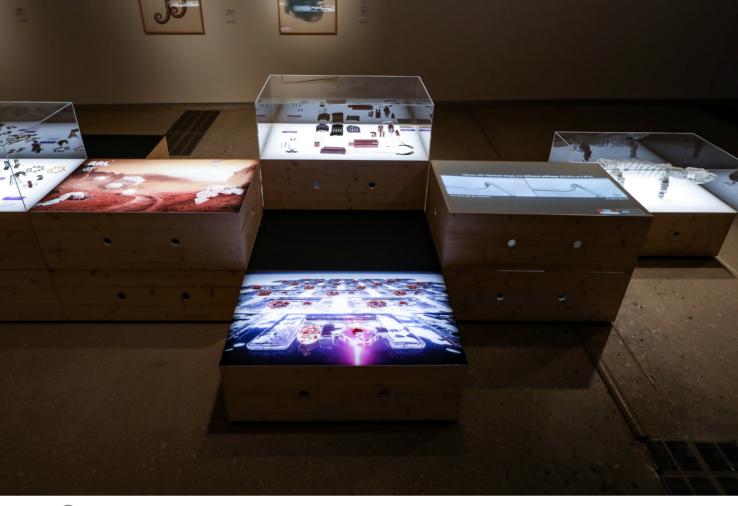
- → Haseeb Ahmed
- → Claudia Comte
- → Alexandra Daisy Ginsberg
- → Agnes Denes
- → Melissa Dubbin & Aaron S. Davidson
- → Urs Fischer
- → Jürg Lehni
- → Basim Magdy
- → Adrien Missika
- → Katja Novitskova
- → Trevor Paglen
- → Léa Pereyre & PATHOS
- → Jean Tinguely
- → Suzanne Treister





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Pop-up Exhibitions and Events

Despite the COVID-19 global health crisis, several unique events were held in person, from public shows and performances to insightful encounters, which aimed to engage with the professional and academic community. In order to accommodate the sanitary requirements imposed by the global health crisis, some of the events originally proposed to be held in ArtLab's Datasquare had to be moved to larger on campus.

IMG. 15 P. 30

Sound Painting

February 11, 2020 to February 20, 2020 ArtLab, Datasquare

Soundpainting is a form of *real-time composition* using sign language, a technique/art form developed in 1974 by Walter Thompson, an American composer. This gestural language includes more than 1,500 signs. A composer (or soundpainter) makes a series of signs/gestures, and the artists (musicians, actors and/or dancers) respond in real time. The composer uses these signs/gestures to tell the performers when and how they are supposed to respond, and with what action, whether it be a musical note, a dance move, or a spoken word.

Students from EPFL and the University of Lausanne (UNIL) brought their musical, theatrical, and dance skills to ArtLab for a unique workshop and performance series led by Walter Thompson, the inventor himself.

From February 12 through to the 16, Walter Thompson led a series of five workshops with EPFL and UNIL students. The workshop series culminated in two performances at the ArtLab on the 18 and 19 of February.

The events were organized in collaboration with CDH Culture, UNIL Musicology Professor Constance Frei, a lecturer in the CDH Social and Human Science program (SHS), UNIL/EPFL Cinéclubs, and the Student Association Musical (EPFL AGEPoly).

Immersive Lab

IMG. 16 P. 30

February 25, 2020 to March 1, 2020 ArtLab, Datasquare

In early 2020, ArtLab hosted *Immersive Lab*, an interactive multisensory space for artistic and scientific exploration developed by Daniel Bisig and Jan Schacher from the Institute of Computer Music and Sound Technology at the Zurich University of the Arts.

Showcasing how art and science can inform each other in the investigation of immersive and interactive media, *Immersive Lab* served as a platform for artistic and scientific experimentation and creation. Throughout the project, artists, scientists, curators and educators collaborated on creations and exhibitions. The resulting works revealed how experience and communication affect our perception and the application of digital media.

The list of works in the exhibition included:

- → Connect (by Simon Schaerlaeken and Donald Glowinski)
- → Multiple Bodies, Super Egos & Virtual Selves (by Simon Schaerlaeken, Bruno Herbelin, Oliver Kannape, Jan Schacher, Daniel Bisig)
- → Coexistence (by Nadine Cocina and Romana Sprenger)
- → Seen (by Célia Bétourné and Louis Cortes)
- → Les Mains Négatives (by Anne Dubos and Jan Schacher)

The Great Hack

Proposed for March 12, 2020 and postponed due to COVID-19 Auditorium CO1

ArtLab organized a special event in partnership with the International Film Festival and Forum on Human Rights and Ingénieurs du Monde, consisting of the screening of *The Great Hack*, 2019, by Karim Amern and Jehane Noujaim. *The Great Hack* is a documentary that examines the *Cambridge Analytica* scandal through the accounts of several affected persons. The projection was originally intended to include a follow-up round table discussion composed of experts in the field of data protection, which as unfortunately cancelled.

Planned speakers:

- → Olivier Crochat, executive director of C4DT
- → Pr. Solange Ghernaouti, director of Swiss Cybersecurity Advisory & Research Group
- → Pr. Robert West, EPFL professor
- → Dr. Leila Delarive, founder of Empowerment Fondation
- → Moderator: Pr. Yohan Ariffin

(IMG. 17-18



Open-Air Cinema: GIFF plug × ArtLab

September 17, 2020 to September 25, 2020 EPFL, Agora Lombard Odier

Following a period of cultural scarcity, ArtLab celebrated the start of the new academic year with an open-air cinema at the heart of the EPFL campus. Four evenings of screenings were held under the stars, with a customized program prepared by the GIFF – Geneva International Film Festival, 100% science and technology.

Films

 \rightarrow Kids → Swatted Michael Frei, 9 min, 2019, Switzerland Ismael Joffroy Chandoutis, 21 min, 2018, Animation, EN voiceover France, Animation, EN voiceover, FR subtitles How do we define ourselves when we are all equal? Who leads the crowd? What if it Swatting, a potentially deadly cyber-hargoes the wrong way? Where does the indiassment phenomenon, hovers over online vidual end and the group begin? What do gamers every time they play. Through we do by choice, and what do we do under YouTube videos and fascinating computer duress? graphics, gamers describe their struggle between fascination and horror.

→ Dark Side of the Moon William Karel, 52 min, 2002, France Mockumentary, FR voiceover

A documentary of intrigue, a subtle mix of real facts, fiction and hypotheses around an event that marked the 20th century: the race to the Moon. Was Richard Nixon prepared to do anything and everything to ensure the supremacy of the United States in the race to the Moon? Were there really "live broadcasts" from the Moon? What links did Stanley Kubrick have with NASA? Built around real interviews with Henry Kissinger, Donald Rumsfeld and Buzz Aldrin, this film throws up confusion and reminds us of the power of images and their possible manipulation. → Little Joe Jessica Hausner, 105 min, 2019, France, Drama, Science-Fiction, EN voiceover, FR subtitles

A geneticist develops a plant that can make its owners happy. But as the new species grows and evolves, she discovers that her creation is anything but harmless. A chilling dystopian reflection on happiness, *Little Joe* earned its lead actor Emily Beecham the 2019 Cannes Film Festival Best Actress Award.

All the program's projections were sold out in a few hours (80 seats per show). Two evenings were canceled due to inclement weather. This event was a proof of concept to be developed for the years to come.



muse – Launch

September 17, 2020 ArtLab, Datasquare

In September 2020, Datasquare hosted the launch event for *muse*, an EPFL Laboratory for Experimental Museology (eM+) research project. Eight museums of the total 24 participants attended the launch on site, yet with limited audience numbers due to COVID-19 health safety limitations. Since 2019, EPFL's Laboratory for Experimental Museology (eM+), led by Prof. Sarah Kenderdine, has received support from Engagement Migros to produce *muse*, a pioneering audience evaluation application, in collaboration with Swiss museums. The tool provides visitors with an engaging way to communicate their exhibition experiences, while helping museums to harness this feedback when developing future exhibits and other attractions. At first, the *muse* team partnered with eight core museums and institutions for a three-year period, including: Château de Morges, Morges, Haus der

Elektronischen Künste, Basel, International Red Cross Museum, Geneva, Musée d'Éthnographie, Genève, Museum für Gestaltung, Zürich, Rietberg Museum, Zürich, and The Olympic Museum, Lausanne.

Throughout the four-year funding period, the *muse* team, in close collaboration with its partners, has been charged with developing convincing case studies for the Swiss museum landscape. It has also been tasked explore options for commercializing the application and its licensing models, and expanding to include all cultural offerings across Europe and beyond.

[IMG. 20] P. 32

Sévelin Moves to EPFL

October 6, 2020 to October 8, 2020 ArtLab, Datasquare

For three days in October, ArtLab, Datasquare became a stage for contemporary dance performances. This collaboration between EPFL's College of Humanities (CDH) Culture and theater Sévelin36 brought four Swiss dancers to the campus for a series of unique shows during the lunchtime break.

Artists:

- → Mamu Tshi
- → Joachim Ciocca
- → Mélissa Guex and Charlotte Vuissoz



Be Ariel F – Live Event in Partnership with Théatre de Vidy

October 8, 2020 Auditorium CO1

The Geneva-based visual artist and video-maker Simon Senn purchased the digital copy of a female body online, then embarked on a quest to meet the woman whose body he would go on to inhabit thanks to virtual reality. He takes to the stage to share his uncanny experience.

This performance took place at Théâtre de Vidy and was livestreamed in EPFL's CO1 auditorium.

SciCommHack – In Collaboration with CERN

November 13, 2020 to November 15, 2020 Online event

This Science Communications hackathon organized in collaboration with CERN, aiming to give participants the opportunity to tackle important challenges in science communication today, particularly in the context of physics and technologies. In November 2020, participants had the chance to visit underground facilities at CERN, take part in interactive workshops to develop their hacking skills, and build networks with future colleagues, collaborators and friends. Some teams were supposed to be hosted by ArtLab to work on their prototypes, but due to the COVID-19 global health crisis the entire event had to be re-conceived and moved online. In the revised format, seven teams of seven participants each created projects that dealt with how to engage communities, and how to communicate complex and abstract scientific contents to the general public.

Artist-in-Residence Program

IMG. 22 P. 34

Nora Al-Badri

The inaugural artist in residence, Nora Al-Badri, developed her research practice for the exhibition *Babylonian Vision* - الرؤية البابلية *Neuronal Ancestral Sculptures Series* Museology (2019-2020). The exhibition was postponed until the Spring 2021 reopening of Artlab.

Al-Badri collaborated with three EPFL machine-learning students, Melika Behjati, Negar Foroutan Eghlidi and Kyle Michael Matoba, respectively from the Visual Intelligence for Transportation laboratory, the Distributed Information Systems Laboratory, and the Signal Processing Laboratory. Together, they activated neural networks based on GAN technology (General Adversarial Networks) to train on 10,000 digital images from 5 different large museum collections of Mesopotamian, Neo-Sumerian, and Assyrian artefacts. The input images were derived from collections, such as those found in the Metropolitan Museum of Art in New York City or Cleveland Museum, through their open API. As artefactual patinas, and as shards and flakes, the participating images of the five databases had time and memory etched into them. Inchoate inputs were entered into the GAN algorithm to give rise to original, synthetic images.

IMG 24-25 P. 35

Melissa Dubbin and Aaron S. Davidson

Since 2019, ArtLab has led an Artist-In-Residence program, under the patronage of EPFL's College of Humanities (CDH). The artists selected for the 2020 residence were Melissa Dubbin and Aaron S. Davidson, an interdisciplinary artist duo based in Brooklyn, New York, and Northern California. Due to the COVID-19 global health crisis, the artists and scientists had to devise and complete the collaboration on a remote basis. Developed in the framework of this atypical remote residency, the installation *Delay Lines, (feedback)* was showcased as an introduction to the exhibition *Nature of Robotics: An Expanded Field*.

Dubbin & Davidson's knowledge in the field of soft robotics was enriched by data developed in collaboration with EPFL's Biorobotics Laboratory, led by Prof. Auke Ijspeert. The visualization explored the relationships between a soft robotic manta ray and a simulated virtual environment.

Melissa Dubbin and Aaron S. Davidson's work has been described as addressing processes of transmission and reception, interference and transference, often seeking to materialize immaterial or ephemeral states of matter, i.e., sound, light, air, time. They have co-created a body of work including forms, objects, images and experiences, also incorporating the mediums of photography, video, sound, performance, sculpture and artists' books.

Collaborations with EPFL Students

The Curve Online Festival

ArtLab supports and facilitates various initiatives from the EPFL student community, in its exploration of digital culture. In this framework, ArtLab collaborated and promoted *The Curve Online Festival*, a virtual music festival created by EPFL students to help flatten the COVID-19 curve of infection, while bringing community together. It took place on Saturday, April 18, 2020 from 6pm to midnight. A team of app developers created a platform dedicated to this event, reinventing the way spectators can interact at concerts and festivals. Several online stages were simultaneously available. The funds raised during this non-profit event were donated to the World Health Organization to sustain their efforts to manage the COVID-19 global health crisis.

Bal'eclectic

On the occasion of its 40th edition, the Balélec Music Festival, in partnership with ArtLab and the Discovery Learning Program, offered students the opportunity be involved in the implementation of new technologies to improve the experience of festival goers. During a brainstorming session, students conceptualized a type of technology that can assess the flow of festivalgoers, with the capacity to evaluate emotions.

The development of such technology will make it possible to improve the comfort of audiences by providing live updates about the crowd at the different stands or stages, and also to create a new emotional experiences by transposing the emotions of the participants with artistic representations, as a V.J. illustrates the flux of feelings across the different parts of the festival. Due to the COVID-19 global health crisis, Balélec could not take place in 2020, placing this interdisciplinary program on hold.

Docents' Projects

ArtLab's docents worked in groups on different projects to enhance ArtLab's visibility among the EPFL student community. Proposals included: improv theater performances, goodies, special events in the evenings dedicated to the students, plus different ways to enhance ArtLab's presence across social media platforms.

IMG. 23 P. 34

Business Project with Students from Ecole Hôtelière de Lausanne

Coached by Ecole Hôtelière de Lausanne (EHL) experts, EHL students and business leaders work together on real-life challenges. ArtLab wanted to put this synergy to test and launched its challenge to the EHL students, to address a specific business challenge.

ArtLab was keen to discover an external perspective and novel recommendations on how to improve the visitors' experience, with the idea of developing attractive offerings for visitors, students, the general public, and companies.

The proposal's aim was to enhance the appeal of ArtLab, activate synergies between art, science and society, and reinforce awareness of the uniqueness of ArtLab's cultural impact.

Six students worked for nine weeks and submitted several concept ideas detailed in a 170-page report. This work was developed in collaboration with various EPFL departments, in particular catering, led by Bruno Rossignol, and Philanthropy, represented by Valérie Grégoire-Moloney.



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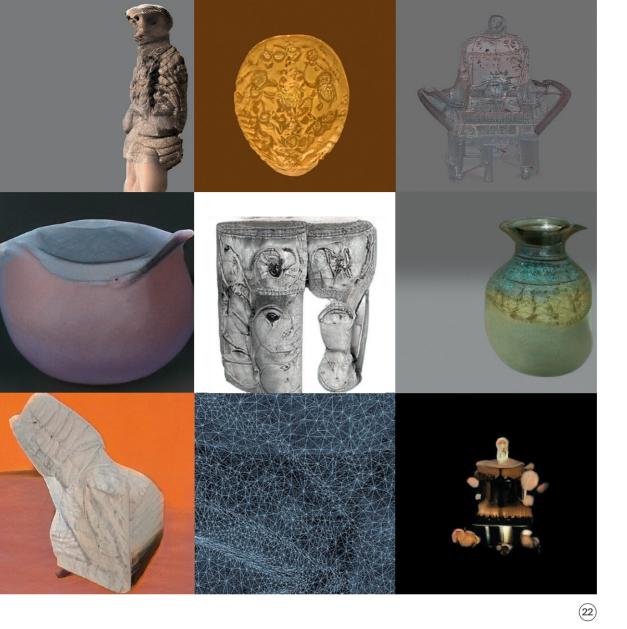




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Invitations and Contributions

2020 World Economic Forum – Annual Meeting

January 21, 2020 to January 24, 2020 Davos, Switzerland

ArtLab was represented at the World Economic Forum's exhibition space with a multiscreen installation from the exhibition Infinity Room I, created in collaboration photographer Catherine Leutewith negger. Camera in hand, the Lausanne photographer took her camera discretely took pictures to bring to light the intricate objects of research found in over 50 EPFL laboratories. The selected photographs represented a high-density plasma column from the Swiss Plasma Center, a dichalcogenide crystal produced by the Crystal Growth Facility of the Institute of Physics, and a robotic hand built by the Learning Algorithms and Systems Laboratory.

Jury for the Science Gateway @CERN

ArtLab was invited to judge a major commission for the Science Gateway, the future interpretation center at CERN. The topic, *Exploration of the Unknown*, was pitched to eight world-known invited artists. The German artist, Julius von Bismarck, was selected as the winner, based on four main criteria:

- \rightarrow Creative ambition and innovation
- → Engagement with new approaches for dialogue between art and science
- → Visual and conceptual correspondence of the proposed artwork to the building
- → Ability to redefine and renegotiate the liminal potentialities of art and science, in order to produce a new sense of spatial identity

Programme d'innovation culturelle

ArtLab is a stakeholder in the programme d'innovation culturelle (PIC), or cultural innovation program, alongside several other cultural institutions in the French-speaking part of Switzerland. The program's objective is to create a pole of expertise for developing new approaches to culture and heritage, starting with a series of Open Labs to help achieve this goal. The first Open Lab was held in summer 2020, a four-week event combining online and in-person interaction, to begin developing new technical and conceptual approaches to culture in our increasingly digital world.

Réseau Romand Science et Cité

ArtLab is a member of the Réseau Romand Science et Cité (RRSC), an independent association, active since 2002 in the field of scientific and technical culture. The RRSC's mission is to promote scientific culture, encourage critical debate on the issues at stake in science and technology, and enhance the resources and skills of members through joint actions. ArtLab also acts as a member of the committee; our representatives attended four meetings in 2020. **Ongoing Productions**

Due to COVID-19, the entire 2020 program was reshuffled. The *Music Machines* exhibition was further postponed, as were all the other exhibitions already in production.

- → Deep Fakes: Arts and Its Double September 17, 2021 to February 6, 2022
- → Cosmos Archeology March 17, 2022 to July 31, 2022
- → Daylight Academy November 23, 2022 to March 23, 2023
- → Music Machines May 25, 2023 to July 30, 2023

Deep Fakes: Art and its Double

September 17, 2021 to February 6, 2022 Curator: Prof. Sarah Kenderdine

Synopsis: Few fields of knowledge denounce copies as 'fake' more than those of art history. Few are as concerned with the authenticity and provenance of objects as those of curating and collecting. In response, *Deep Fakes: Art and Its Double* poses crucial questions about the potency of digital replicas to absorb audiences in enduring emotional encounters with universal art treasures.

Through 21 installations across Pavilions A and B, *Deep Fakes: Art and Its Double* engages with the applied and critical implications of digital materialities and their dual power to entangle and emancipate cultural heritage objects. The ongoing global pandemic has starkly focused the use of the digital as a mechanism for shared cultural futures, and the digital object has taken on new and powerful potencies. Simultaneously, in cases of heritage at risk due to warfare, iconoclasm and climate – induced catastrophes, digital copies have enabled communities to become more resilient to loss. They can also provide reservoirs of cultural memory and instruments for those on the margins to 'speak back' to their oppressors.

Cosmos Archeology

March 17, 2022 to July 31, 2022 Curators: Prof. Sarah Kenderdine, Prof. Jean-Paul Kneib, Dr. Yves Revaz

Synopsis: In a range of artistically inspired installations and visualizations, a conjoining of art and science, this exhibition will re-conceptualize the wealth of imaging data coming from the Hubble Space Telescope as well as other wide-field ground-based telescopes.

Various immersive experiences will take the visitor through space and time, ranging from the Earth environment, the Solar System, exoplanets, the nearby stars, the Milky Way spiral and the Local Group, up to the outer edges of the known Universe. Various journeys will reveal how we apprehend the hierarchical organization of our Universe at different scales and through different optics.

At this early stage of research, different systems have been chosen to develop an interface for science, and also for the general public to comprehend big telescopes datasets: the panorama, the half cave and the full dome.

Lighten Up

November 25, 2022 to March 23, 2023 Curators: Prof. Marilyne Andersen, Emeritus Prof. Anna Wirtz-Justice, Prof. Sarah Kenderdine, Dr. Giulia Bini

Synopsis: We live on a rotating planet whose geophysical environment, alternating between day and night and it shifting seasonal length of day, has provided the framework for evolution. All living organisms, from cyanobacteria, fungi, plants, to humans, have internalized this external light: dark cycles in the form of circadian rhythms (circa diem, about a day) are optimally prepared for the right behavior at the right time. Unravelling the secrets of how the biological clock genes tick was awarded a Nobel Prize for Physiology or Medicine in 2017.

In this exhibition, artists take concepts of circadian rhythms and the powerful role of light to create works that remind us of the importance of biological rhythms and daylight.

The core themes are day-night changes in light intensity and spectra, the critical role of twilight as a signal for the biological clock, and the obvious relationship of these external cycles to our internal cycles of sleep-wake, alertness, mood, body physiology and overall health, performance and wellbeing. Light via the eyes is the key synchronizing agent for the biological clock, daylight the original entrainment signal. In a 24/7 society, where urban lifestyles and work habits have gradually disconnected us from "natural" light exposure, rhythms are fluid and no longer well adapted to the environment, resulting in "social jetlag", depression, sleep disorders, and in the long-term medical consequences.



EPFL-LIVE – Launch proposed for 2023

Curator: Prof. Sarah Kenderdine

In May 2020, ArtLab got the all-clear from the Direction of EPFL to dismantle the existing display in the Datasquare and move towards a permanent visualization dashboard. Called EPFL-LIVE this project aims to represent EPFL research and life through the great science of its laboratories. Algorithmic approaches will be leveraged to present the content produced by EPFL research entities in an innovative way. This will result in an inaugural presentation scheduled for 2023 at EPFL Pavilions, as well as a live archive where the data collected will be preserved and displayed through advanced visualizations, following the principles of the Archive 3.0 concept, to be developed by Prof. Sarah Kenderdine.

The project work started in 2020, as the first steps were taken to roughly map the different laboratories, to better understand the type of content they produce and the projects they work on. Then, the team explored examples of data visualizations and dashboards to envisage what an exhibition of this kind might look like. Finally, we started an analysis of the written content produced by the laboratories, focusing on their scientific publications. Data collection and analysis of a first sample of 20,000 articles revealed recurring teminology in the publications of laboratories working in similar fields, words that could therefore be used to group and represent the laboratories' research. Similarly, connections between laboratories have been established by observing collaborations on published papers, creating an networked structure of EPFL laboratories.

Future steps entail working on the visual content produced (images, graphs, graphical simulations) and planning a framework in which laboratories would have the possibility to directly upload their content to be fed live to our EPFL-LIVE exhibition, and then archived for posterity.

Rebranding – ArtLab becomes EPFL Pavilions

ArtLab is becoming EPFL Pavilions. In addition to the name change in 2020, an entire rebranding process took place to reimagine the identity of the new EPFL Pavilions. A fresh logo, bright colors, building signage, as well as the new website, collectively unite the EPFL science and the art that it inspires. Colorful, effervescent, the new look cheerfully contrasts with the building's minimalism. It reflects the multidisciplinary nature, the dynamism and innovation of its programming. The visual identity was developed by the German agency *Knoth and Renner*, selected from among the six agencies invited to participate in the call for proposals.

Why a new name?

Originally, ArtLab stood for Art-Research and Technology Lab. But:

- → ArtLab is not a laboratory
- \rightarrow The acronym is not known
- $\rightarrow\,$ It is not an Art and Science venue, as is commonly understood
- → ArtLab is a very unspecific term

By refreshing the name, the aim was also to refresh the vision.

Why EPFL Pavilions?

The word *pavilion* references a long history of experimentation in the field of media and experimental practice. It echoes the building's architectural presence on campus, and the *pavilion* model during biennial art festivals. It embodies innovation, excellence, creativity and contemporaneity.

The word *pavilion* works both in English and French. The EPFL campus is bilingual, therefore the word *pavilion* resonates in both languages, and is effective for communicating the name abroad.

Pavilions: the building is split into three pavilions under one roof (from North to South: Pavilion A, Pavilion B, Pavilion C). The "s" makes clear that the name refers to the entire building, and not just one single part of it.

EPFL Pavilions is linked to EPFL as it is a platform for promoting major research and innovation through non-traditional means. Exhibitions and programs reflect all disciplines, and raise questions on scientific innovation and societal challenges. In this way, they contribute to the development of responsible and enlightened creative minds.

Manifesto

Located at the heart of a vibrant international university, EPFL Pavilions is an amplifier for art, science and society, a meeting place for all disciplines. In the Pavilions, exhibitions and programs evolve in dialogue with scientific innovation and societal challenges, engaging visionary perspectives on our contemporaneity. Reaching beyond object-oriented curation, EPFL Pavilions blends experimental curatorship and contemporary aesthetics with open science, digital humanism and emerging technologies. In participation with its diverse communities, EPFL Pavilions is uniquely positioned as an experimental space for access to new forms of knowledge arising at the intersections of these transdisciplinary practices.

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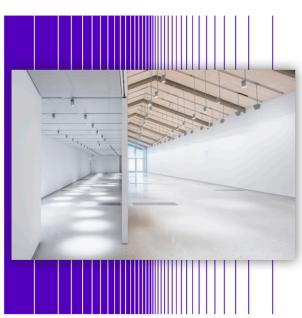
Scope of the Rebranding

The studio of Knoth and Renner was selected to develop:

- \rightarrow Overall identity: logo, font, colors (etc.) and graphic guidelines
- → On-site identity (on the windows of the building)
- \rightarrow Print
 - → Template for promoting major exhibitions/programs (lasting several months) produced or hosted by EPFL Pavilions (A0 posters, flyers, brochures and advertisements)
 - → Poster template for exhibitions and events in Pavilion A with clear differentiation between events as such:
 - Events organized by EPFL Pavilions as a part of its cultural program

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- Events hosted by EPFL Pavilions but organized by other entities (EPFL Communication department, CDH culture, etc.)
- → Digital
 - → Website (QR)
 - → Web banners (29)
 - → Newsletter template
 - → Video signature
 - Social Media channels templates for: posts, stories, profile image, headers (28, 31)









epfl-pavilions.ch



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ArtLab Annual Report 2020

Team





Scientific Committee

- \rightarrow The Scientific Committee met twice in 2020.
- → Students' representatives: Victoria Letertre and Arthur Parmentier left EPFL after graduating and were replaced by Neil Chennoufi (Artepoly) and Valentin Prost (Agepoly).
- → Prof. Jeffrey Huang Director of the Institute of Architecture was invited to join the Scientific Committee starting November.

Members

- → Sarah Kenderdine ArtLab Director, Full Professor – EPFL, Laboratory for Experimental Museology
- → Marilyne Andersen Full Professor – EPFL, Laboratory of Integrated Performance in Design
- → Jean-Philippe Ansermet Full Professor – EPFL, Laboratory of the Physics of Nanostructured Materials
- → Jérôme Baudry
 Tenure Track Assistant Professor –
 EPFL, Laboratory for the History
 of Science and Technology
- → Mirko Bischofberger Head of Communications, EPFL
- → Tayana Franck Director of Musée de l'Elysée
- → Robert Giezendanner-Thoben Head of Business Development EPFL, Vice-Presidency for Innovation
- → Vassily Hatzimanikatis
 Associate Professor EPFL,
 Laboratory of Computational
 Systems Biotechnology

- → Simon Heinein Associate Professor – EPFL, Patek Philippe Chair in Micromechanical and Horological Design
- → Jeffrey Huang Full Professor – EPFL, Media and Design Laboratory
- → Béla Kapossy EPFL, CDH Director
- → Valentin Prost EPFL, Master's Student, Committee Member of AGEPoly-Musical
- → Francesco Panese Associate Professor – UNIL, STS Laboratory
- → Neil Chennoufi EPFL, MT Master's Student, Committee Member ArtePoly
- → Martin Rohrmeier Associate Professor – EPFL, Digital and Cognitive Musicology Laboratory
- → Sabine Süsstrunk Full Professor – EPFL, Image and Visual Representation Laboratory

Staff

In 2020, the team was as follows:

ТЕАМ		TOTAL 7.3 FTE
Sarah Kenderdine	Director and curator	20%
Anne-Gaëlle Lardeau	Manager	80%
Giulia Bini	Curator and production manager	100%
Patrick Chouard	Lead technician	80%
Stéphanie Romon	Administrative Assistant	20%
Aurélie Nicoulaz	Administrative Assistant	30%
Joël Curty	Communications (until 14/12/2020)	80%
Mélissa Quidort	Front desk trainee (until 31/07/2020)	100%
Le Thy Nguyen	Events coordinator	80%
Camilla Mongini	Mediation trainee (from 01/10/2020)	100%
Giacomo Alliata	CDH trainee (from 01/11/2020)	100%
Samy Mannane	On projects (from September 2020)	80%

Joël Curty, Communications, and Mélissa Quidort, Trainee, finished their temporary missions at ArtLab in 2020, as four new colleagues started their own internships.

→ Le Thy Nguyen

Le Thy began her career promoting Swiss technology and innovation in Washington, D.C. United States, Guangzhou, China, and Paris, France. Now back in her hometown Lausanne, as ArtLab's Event Coordinator, Le Thy is committed to connecting people through our eclectic and exciting program.

→ Camilla Mongini

Camilla holds a Bachelor's degree in Classics from the Università Cattolica of Milan, a Master's in Culture Studies from the Lisbon Consortium, and a Master's in Aesthetic, Practice and History of Contemporary Art from the Université de Paris 8. After several years of studying abroad, researching and working in the fields of contemporary art, architecture, and design, she is now back in Switzerland to collaborate with ArtLab on the cultural mediation. \rightarrow Giacomo Alliata

Giacomo obtained a Bachelor's degree in Physics at EPFL, before continuing his studies with a Master's in Digital Humanities' to connect more with culture and data science. He has now started an internship at ArtLab to work on our forthcoming exhibitions and learn more about the world of experimental museology.

→ Samy Mannane

Samy obtained a Master's degree from a French engineering school in Computer Graphics, allowing him to work in connection with his passion for 3D, first in a French VFX company and then in a video game company in the U.S. Since September 2020, he has been working at the Experimental Museology Lab on ArtLab's upcoming exhibition *Deep Fakes: Art and Its Double*. As a software engineer focused on application building and real-time 3D visual processing, he is driven by the desire to create interesting visual experiences.

Docents

In addition to the ArtLab team, 20 students from various backgrounds supported ArtLab's activities during the year, bringing freshness and enthusiasm to the team.

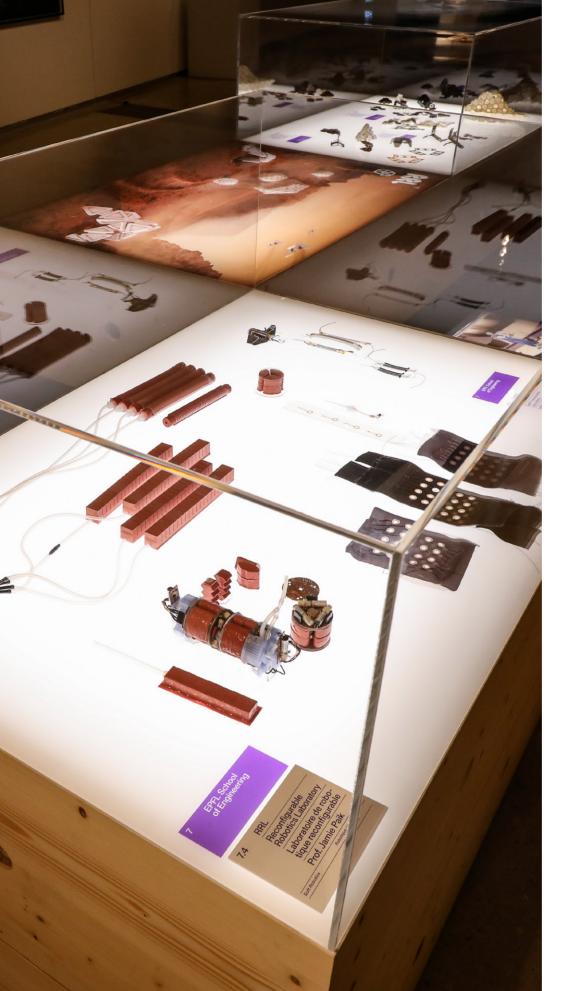
- → Jessica Aubouy Master's in Environmental Sciences and Engineering
- → Mai Hoang Anh Bachelor's in Architecture
- → Tobias Bachmann Master's in Mechanical Engineering
- → Dorine Chakhtoura
 Master's in Mechanical
 Engineering
- → Anna Clément Master's in Architecture
- → Syrine Ghrabli Bachelor's in Physics
- → Olivia Julia Master's in Energy Science and Technology
- → Denis Joly
 Master's in Life Sciences
 Engineering
- → Gabriel Kathari Master's in Environmental Sciences and Engineering
- → Victoria Letertre, Master's in Robotics

- → Clélia Liebermann Master's in Digital Musicology
- → Francesca Luongo Master's in Life Sciences Engineering
- → Julia Martignoni Master's in Architecture
- → Laura Mekarni
 Master's in Environmental
 Sciences and Engineering
- → Gauthier Petitfrere Master's in Mechanical Engineering
- → Eva Raffin Master's in Architecture
- → Sara Steiner Master's in Architecture
- → Alexia Tsanga Master's in Management of Technology and Entrepreneurship
- → Juliette Vincent Master's in Civil Engineering
- → San Yun Bachelor's in Architecture

ArtLab Annual Report 2020

Facts and Figures





Visits

Due to the COVID-19 global health crisis, ArtLab was open for only two and a half months, with very restricted booking possibilities in September 2020.

On-site Visitors

	Non EPFL Students	234
	EPFL Students	486
	Adults-Campus	379
	Adults-External	1,362
	Adults-AVS	25
	ICOM	4
	Children	115
TOT	AL	2,605

Guided Tours

In addition of the EPFL lunch visits, special lunchtime tours dedicated to the students were launched in September. They were fully booked.

- \rightarrow VIP Visits 12
- → EPFL (staff) lunch visits 13
- \rightarrow EPFL (students) lunch visits 4
- → Saturdays guided tours 4
- \rightarrow Guided tours on demand 14

Digital Audience

Google My Business data reveals that ArtLab received upwards of 380,000 virtual visitors during the 2020 calendar year.



Fundraising

Nature of Robotics: An Expanded Field – The exhibition received 20,000 CHF from Pro Helvetia in order to support the Swiss artists represented in the exhibition.

The exhibition *Deep Fakes: Art and Its Double* was postponed into 2021, which allowed for more time for fundraising. The fundraising campaign was extended, and 350,000 CHF were raised in collaboration with UNIL.

FUNDRAISING CAMPAIGN

Loterie romande	120,000 CHF
Office fédéral de la culture	100,000 CHF
Apport Association Paul Collart	90,000 CHF
Société académique vaudoise	15,000 CHF
Fondation Leenaards	10,000 CHF
Fondation UBS	10,000 CHF
SICPA	5,000 CHF
TOTAL	375,000 CHF

Budget 2020

	RESOURCES	EXPENSES	REPORT 2021
SALAIRES	672,820 CHF	672,820 CHF	
OPERATIONS incl. productions	670,000 CHF	348,772 CHF	321,228 CHF
FUNDRAISING			375,000 CHF
TOTAL	1,342,820 CHF	1,021,592 CHF	696,228 CHF

Image Credits

→ Cover Image

Katia Novitskova Pattern of Activation (Mamaroo nursery, dawn chorus), 2017 Courtesy: the artist and Kraupa-Tuskany Zeidler, Berlin. Exhibition view. Nature of Robotics: An Expanded Field, 11.12.2020 -16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo: Alain Herzog

 \rightarrow Page 2 Scientific Display Exhibition view. Nature of Robotics: An Expanded Field, 11.12.2020 - 16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo: Alain Herzog

→ Pages 6-7 Melissa Dubbin & Aaron S. Davidson Delay Lines, (feedback), 2020 Commissioned and produced in the framework of the CDH Artist in Residence programme 2020 Courtesy: the artists Nature of Robotics: An Expanded Field, 11.12.2020 - 16.05.2021, **EPFL** Pavilions © image EPFL Pavilions, photo: Alain Herzog

→ Pages 8-9 Katja Novitskova Pattern of Activation (Mamaroo nursery, dawn chorus), 2017 Courtesy: the artist and Kraupa-Tuskany Zeidler, Berlin, Exhibition view. Nature of Robotics: An Expanded Field, 11.12.2020 -16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo: Alain Herzog

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With "Archival Constellations", visitors enjoy an immersive experience of the Montreux Jazz Festival archives under an interactive dome

Infinity Room 2, © Leutenegger Photography



Visitor explore EPFL for themselves with the interactive installation "Open Science". Tablet in hand, they discover a collection of 50 scientific objects from EPFL, inside virtual lockers. Infinity Room 2, © Leutenegger Photography

\rightarrow Page 13 ´4`

"Super-vision" presents nearly 8.000 doctoral theses defended at EPFL over its 50-year history. The themes of all these works have been analyzed and classified using machine learning. An interactive browser provides an overview. Infinity Room 2, © Leutenegger Photography

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→ Page 15-17 Hope, Sabine Senn Pictet

$(10) \rightarrow Page 19$

Katja Novitskova Pattern of Activation (Mamaroo nursery, dawn chorus), 2017 Courtesy: the artist and Kraupa-Tuskany Zeidler, Berlin. Exhibition view. Nature of Robotics: An Expanded Field, 11.12.2020 -16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo: Alain Herzoa

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Nature of Robotics: An Expanded Field, 11.12.2020 - 16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo: Alain Herzog

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Scientific Display Hydrogel-based artificial muscles. © Nebahat Yenihavat and EPFL MI-CROBS, MicroBioRobotic System Laboratory Exhibition view. Nature of Robotics: An Expanded Field, 11.12.2020 -16.05.2021. EPFL Pavilions © image EPFL Pavilions, photo: Alain Herzog

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Urs Fischer Maybe, 2019

Motors, gears, aluminium, plastic, battery, brass, silicone, magnets, two-component urethane casting resin, acrylic paint, xanthan gum, gum arabic, ethanol, charging station. Edition 2 of 2 & 2 AP. Private collection. Courtesy: the artist. Nature of Robotics: An Expanded Field, 11.12.2020 - 16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo:

Alain Herzog $(14) \rightarrow Page 21$

Nature of Robotics: An Expanded Field, 11.12.2020 - 16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo: Alain Herzog

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Sound Painting, ArtLab, Datasquare © Photographie: Guillaume Le Baube

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Immersive Lab, ArtLab, Datasquare © EPFL – Alain Herzog

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Open-Air Cinema: GIFF plug × ArtLab © EPFL - Alain Herzog

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Open-Air Cinema: GIFF plug × Art-Lab © EPFL - Sarah Kenderdine

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Jürg Lehni explaining Otto. Jürg Lehni, Otto, 2015 Computer-controlled chalk drawing machine Motor modules, stainless steel ribbon coils, automated chalk holder, custom-made controller and software Nature of Robotics: An Expanded Field, 11.12.2020 - 16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo: Giulia Bini

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Sévelin Moves to EPFL, Théâtre de Vidv.

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Be Ariel F - Live Event in Partnership with Théatre de Vidy © Elisa Larvego

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These images created by Nora Al-Badri are not photographs. Inspired by ancient objects from Mesopotamia, they were generated from scratch by artificial intelli-Neuronal Ancestral Sculptures Series © Nora Al-Badri

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Business Project with Students from Ecole Hôtelière de Lausanne EHL / EPFL



Melissa Dubbin & Aaron S. Davidson Delav Lines, (feedback), 2020 Commissioned and produced in the framework of the CDH Artist in Residence programme 2020 Courtesy: the artists Nature of Robotics: An Expanded Field.

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 \rightarrow Pages 41-43 EPFL Pavilions visual identity Nature of Robotics design: Knoth & Renner and Jakob Kirch (Lamm & Kirch)

→ Pages 41-43 Immersive Lab, ArtLab, Datasquare

 \rightarrow Pages 44-45 Immersive Lab, ArtLab, Datasquare © EPFL - Alain Herzog

→ Page 50-51 EPFL School of Engineering, Reconfigurable Robotics Laboratory (RRL), Professor Jamie Paik Robogami Design Mori: Modular Origami Robots, Soft Robotics Exhibition view. Nature of Robotics: An Expanded Field, 11.12.2020 - 16.05.2021, EPFL Pavilions © image EPFL Pavilions, photo: Alain Herzog

→ Pages 55-56 EPFL Pavilions visual identity Nature of Robotics design: Knoth & Renner and Jakob Kirch (Lamm & Kirch).

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