

# Open Books Livres ouverts

EPFL+TECAL LAB

Press Release  
June 2023

RESEARCH PROJECT

EXHIBITION

PHOTO ÉLYSÉE



# Open Books Livres ouverts

As tech companies strive to show that artificial intelligence can compete with humans, the EPFL+ECAL Lab explores how this technology can instead serve culture and stimulate our perception. Taking an experimental approach, the design research centre is unveiling a new interactive and immersive installation developed in partnership with Photo Elysée. *Open Books – Livres ouverts* invites the public to immerse themselves in the rich world of photography books. On view from June 29.

In addition to its internationally renowned photographic archive, Photo Elysée owns a collection of over 25,000 photography books. These publications are essential to contextualise a photographer's work, while often introducing a narrative dimension. But how can we reveal the existence of these books and present their content and special features to a wide audience without endangering their existence? The EPFL+ECAL Lab, the design research centre of the Ecole polytechnique fédérale de Lausanne, founded in collaboration with ECAL, is tackling this challenge in a collaboration with the Lausanne-based museum.

The three years of research that made this project possible are part of a programme dedicated to experimenting with new forms of exhibition in order to bring back to life large cultural heritages that are often difficult to access by the general public. Combining emerging technologies and design research, this project is structured around three themes:

- ↳ Revealing the specific features of books by analysing visual characteristics such as colour, light and the regularity in the sequences of images.
- ↳ Fostering the discovery of books and authors by creating bridges between works, based on their similarities, particularly in the sequences of images.
- ↳ Reinforcing the perception of content, through a synesthetic experience, i.e., one that stimulates several senses. Thus, the profound nature of the photography book emerges in the form of visual signs and sound traces.

The digital design experiments allowed ties between 400 books and some 50,000 pages to be made, creating an interactive and expressive environment that is accessible to all visitors. Only artificial intelligence can manage the billions of possible combinations. With this project, the EPFL+ECAL Lab continued its work to define how this technology, rather than replacing humans, could open



↑ *Open Books*, 2023 © EPFL+ECAL Lab / Matthieu Croizier

the doors to little-known cultural universes, rich in history, emotions and unexpected insights.

The installation *Open Books – Livres ouverts* approaches the photography book by highlighting the sequences created by the succession of pages. Five screens offer a panoramic view of the content. The interface reveals the particularities of these sequences, such as the dominant colours, the light, the position of the subjects in the image, whether they are living or simple objects, the blur or the visual regularity that animates the pages. The recommendation tool encourages users to discover other works by going through a similar sequence, according to the highlighted features. Within the multidisciplinary team of the EPFL+ECAL Lab, designers, engineers and psychologists worked closely together throughout this research project, from the concept to the final execution. The work also involved other EPFL laboratories, in particular the Computer Vision Laboratory. It also builds on a previous collaboration between the Digital Humanities Laboratory, the start-up Volumen and the museum, which established the strategies and tools for digitising the publications.

For this first presentation of *Open Books – Livres ouverts*, the EPFL+ECAL Lab, in collaboration with Photo Elysée, has designed an immersive journey that begins with the presentation of photographic sequences in giant format. It continues with an immense library with bookshelves undulating over some fifty metres. Here, the museum has placed almost 2,000 photographic books, accessible to all. Some of the books are displayed open, to expose their visual characteristics and to echo the digital exploration on offer. Finally, the interactive installation, the fruit of this long-term project, offers visitors the chance to travel to the heart of the books and discover these sequences of images in a whole new light.

#### PRACTICAL INFORMATION

Exhibition *Open Books – Livres ouverts*  
From 30 June to 1 October 2023

Public opening  
Thursday 29 June 2023, from 18:00 to 23:00

Photo Elysée  
Place de la Gare 17, CH-1003 Lausanne



↑ *Open Books*, 2023 © EPFL+ECAL Lab / Matthieu Croizier



↑ *Open Books*, 2023 © EPFL+ECAL Lab / Matthieu Croizier



↑ *Open Books*, 2023 © EPFL+ECAL Lab / Matthieu Croizier

## CREDITS

### CURATION

**Manuel Sigrist, Photo Elysée**  
**Nicolas Henchoz, EPFL+ECAL Lab**

### ART DIRECTION & PROJECT MANAGEMENT

**Romain Collaud**

### MAS IN DESIGN RESEARCH FOR DIGITAL INNOVATION

**Rémi Opalinski**

### SCENOGRAPHY & PRODUCT DESIGN

**Béatrice Durandard in collaboration with Yann Mathys**

### ENGINEERING & TECHNOLOGY MANAGER

**Delphine Ribes**

### SOFTWARE ENGINEERING

**Gabriel Luthier, Yves Kalberer, Ovidiu Olenici, Mateja Ilic**

### SOUND ENGINEERING & DESIGN

**Dr Cédric Duchêne**

### UX PSYCHOLOGY

**Dr Andrea Schneider assisted by Sofia Viola and Renée Favre**

### PRELIMINARY INVESTIGATIONS

**Marius Aeberli**

### IN COLLABORATION WITH

**Dr Mathieu Salzmann, MER, Computer Vision Laboratory (EPFL)**

**Pr Frédéric Kaplan, Director, College of Humanities (EPFL)**

### EPFL SEMESTER PROJECTS

**André Langmeier, Computational Science and Engineering**

**Jean-Daniel Rouveyrol, Communication Systems**

### PHOTO ÉLYSÉE LIBRARY

**Ilhame Benboubker, Stéphane Mocan**

### PHOTOGRAPHY

**Matthieu Croizier/ EPFL+ECAL Lab**

### TECHNICAL SUPPLIER

**Volumen sàrl**

### PARTNERS

**PHOTO  
ELYSEE**

**EPFL+ECAL LAB**

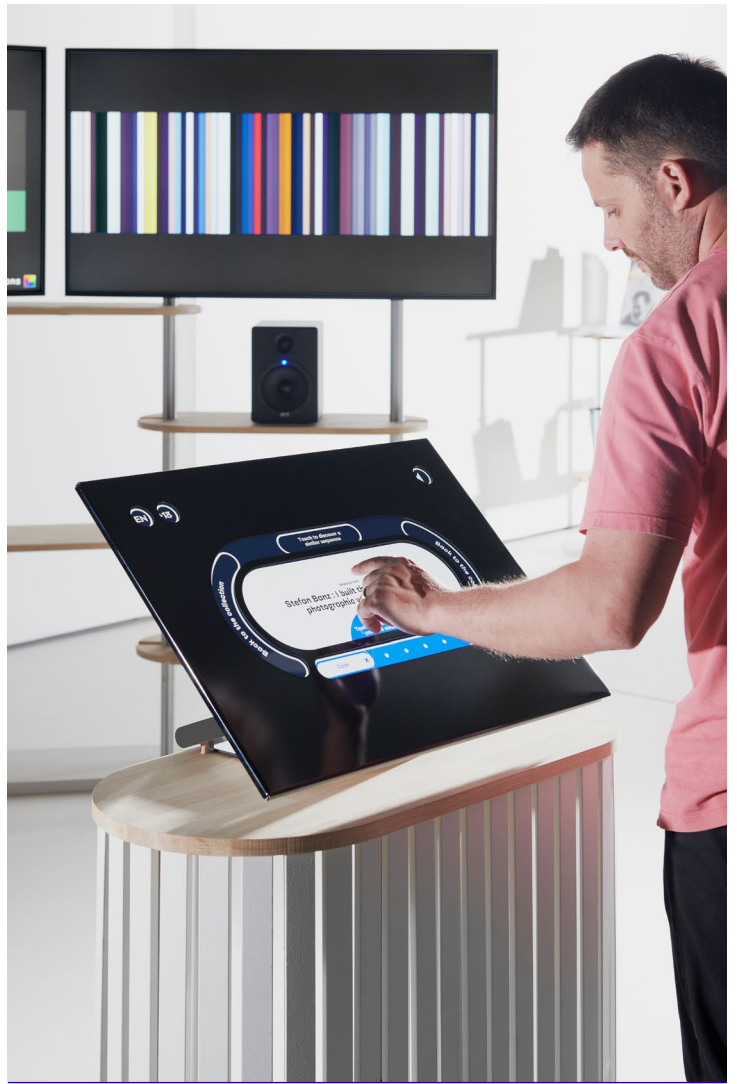
### ABOUT THE EPFL+ECAL LAB

The EPFL+ECAL Lab is the design research centre of the EPFL/Ecole polytechnique fédérale de Lausanne, founded in 2007 in cooperation with ECAL/University of Art and Design Lausanne. Exploring the potential of emerging technologies through design, it tackles the related challenges by combining artistic creativity, scientific knowledge and the ability to assess user perception. Working on concrete projects, the EPFL+ECAL Lab collaborates with many companies, museums and institutes. With its expertise in design, engineering, architecture and psychology, it creates novel concepts and turns them into functional prototypes.

### CONTACT

**Nicolas Henchoz**  
Director EPFL+ECAL Lab  
nicolas.henchoz@epfl.ch  
+41 21 693 08 02

**Géraldine Morand**  
Communication  
geraldine.morand@epfl.ch  
+41 78 742 44 08



↑ Open Books, 2023 © EPFL+ECAL Lab / Matthieu Croizier