## Computed · By

Coding creative projects

We code innovative online projects and mobile apps for designers or communication agencies.

We code smart spaces or program interfaces for architects and scenographers.

We code interactive art works and digital environments for artists and museums.

Computed By brings together computer scientists and interaction designers. We aim to meet the needs of designers, architects, artists, curators and others working on projects involving code, programming or information technologies.

Our technological expertise combined with our project managers' know-how and a network of art directors enables us to develop complex projects for both public and private institutions, small and large companies.

Based in Switzerland, we manage local and international projects. We develop innovative solutions and set up multi-disciplinary teams which respond to our clients' needs.

# For graphic designers, art directors, communication agencies

Computed·By collaborates with designers and art directors from the communications industry to develop their digital or interactive projects.

In the field of digital communication, Computed·By codes web projects including databases, content management systems (CMS), using open source frameworks or animated environments. In the area of smart phones and tablets, we develop mobile applications for iOS (iPhone, iPad, etc.) or Android devices.

# For architects, city planners, scenographers

Our engineers are used to work with architects, object or environment designers and scenographers to program intelligent, generative or interactive spaces.

Whether it be to develop smart or augmented architectures or to interface data with physical devices, we analyze the needs of each project and come up with tailored solutions to meet specific requirements. We often develop new combinations of technologies to help create original projects.

# For artists, curators, galleries, art festivals, museums

We work in close contact with artists, curators and cultural institutions to program or manage interactive art works, variable or digital environments.

When artists need technology to create their work, we can advise their choices, develop the required code or set up the electronic material. We also have experience in assisting museums and galleries to face both the changing nature of art works and that of an exhibition's environment.

# For companies, corporations, public and private institutions

Computed·By has a large network of cutting edge professionals (designers, architects, art directors, technology providers, etc). This allows us to set up interdisciplinary teams to create complex projects. In such cases, we often coordinate the different phases of development and manage the project from its conception to its delivery. We also provide expertise and auditing services.

# Communication Projects

Client:

Christ & Gantenbein, Basel

Link:

christgantenbein.com

Art direction: Marie Lusa, Zürich

Development: Computed·By

Technology: HTML/CSS Node.js Javascript

Publication: 2021

Website for the architecture studio of Basel-based architects Emanuel Christ & Christoph Gantenbein.

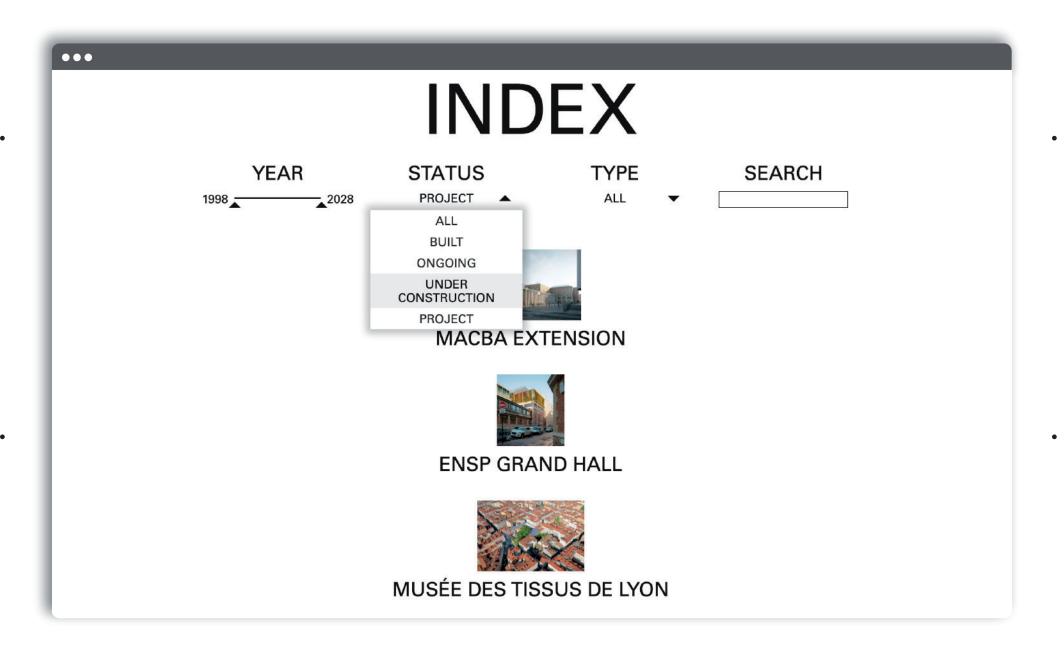


NEWS
PROJECTS
OFFICE
INDEX

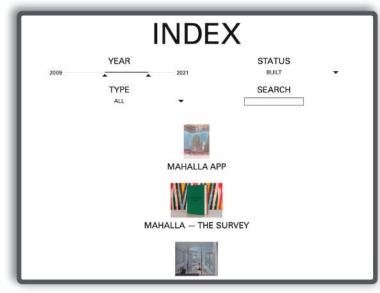












CHRIST & GANTENBEIN

NEWS PROJECTS OFFICE INDEX



### MAMCO



Client:

MAMCO, Genève

Link:

www.mamco.ch

Art direction: Gavillet & Cie, Genève

> Development: Computed·By

Technology: HTML/CSS Node.js Javascript

Publication: 2019-2020

Website for the Museum of modern and contemporary art of Geneva.

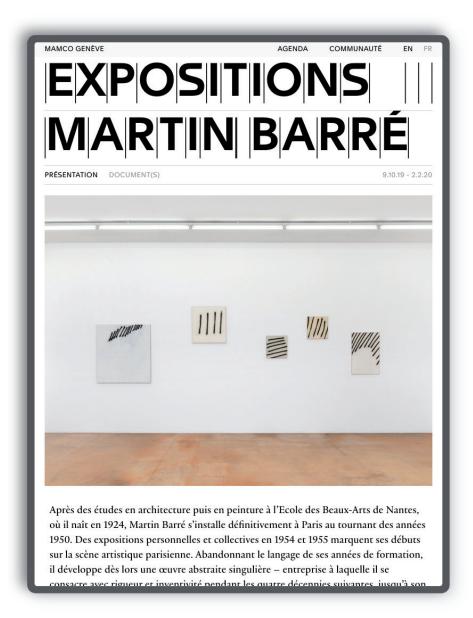


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### **MAMCO**







### SKOP Architektur & Städtebau

Client:

SKOP Architektur & Städtebau, Zürich

Link:

skop-arch.ch

Art direction: Marie Lusa, Zürich

Development: Computed·By

Technology: HTML/CSS Node.js Javascript

Publication: 2021

Website for SKOP - Office for architecture and urbanism



### SKOP Architektur & Städtebau









### **Schule Port**

Eine Schule auf Zack: Das Holzhaus versorgt nicht nur die Kinder mit viel frischer Energie, sondern auch das gesamte Schulareal – plus 50 Haushalte dazu.

Der Neubau der Schule Port liegt mitten in einem Wohnquartier in unmittelbarer Nähe zur Stadt Biel. Mit der gestaffelten Fassade und dem mehrmals gefalleten Dach nimmt der Baukörper Bezug auf die Körnigkeit der giebeldachgekrönten Nachbarhäuser sowie die Topografie. Das Schulhaus verknüpft die beiden Ankunftsrichtungen der Schulkinder von Osten und Westen sowohl mit einer aussen- als auch mit einer innenräumlichen Verbindungsachse.

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TEAM SKOP

### EPFL Deepcity

Client:

EPFL, Lausanne

Link:

deepcity.ch

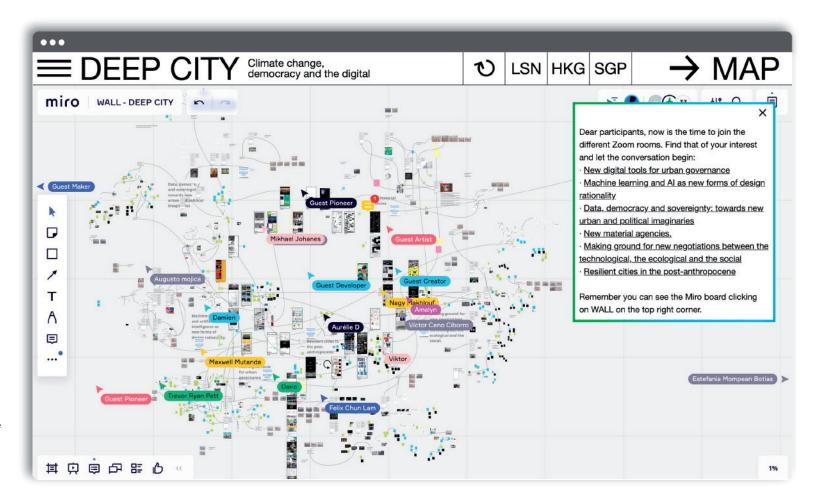
Art direction:
Alice Lab, Lausanne

Development: Computed·By

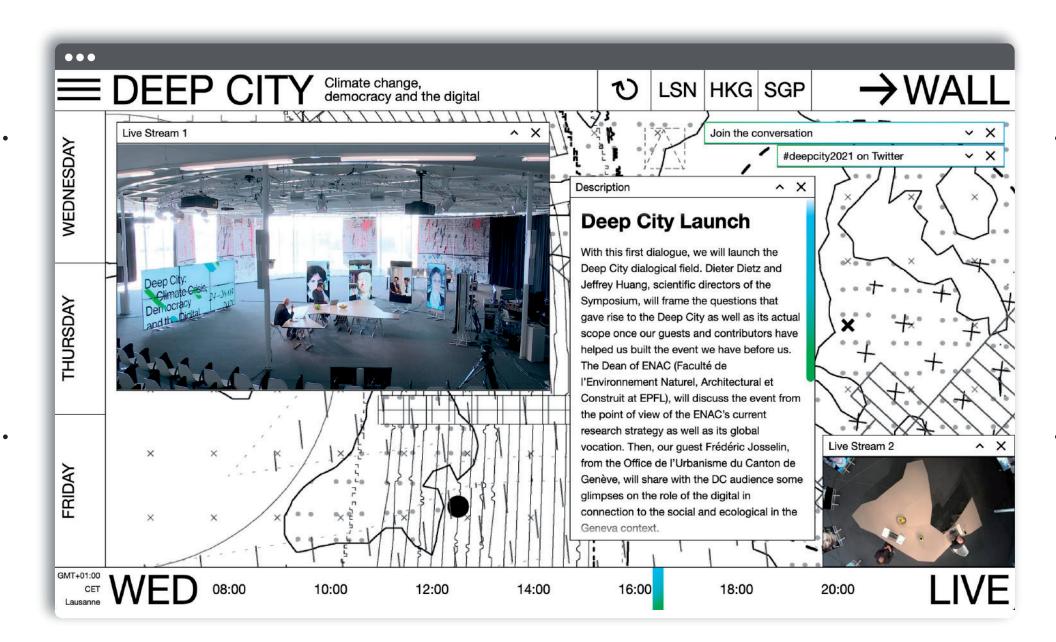
Technology: HTML/CSS Node.js Javascript

Publication: 2021

Analog-digital platform for the Deepcity symposium held at Rolex Learning Center in Lausanne. An interactive timeline and map let's users explore the conference programme.



### EPFL Deepcity

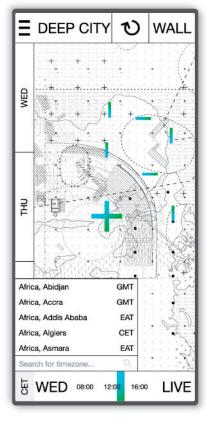


### **EPFL** Deepcity









### ECAL Yearbook

Client:

ECAL, Lausanne

Link:

ecal-diplomes.ch

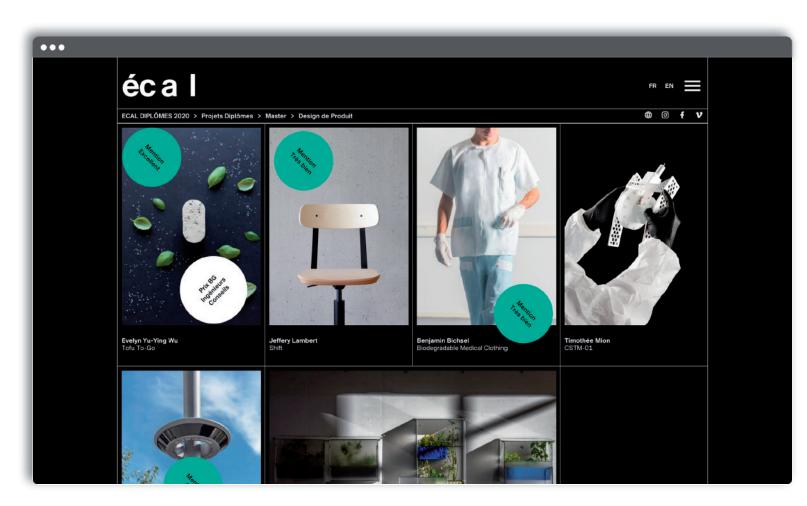
Art direction:Bilal Sebei, Lausanne

Development: Computed·By

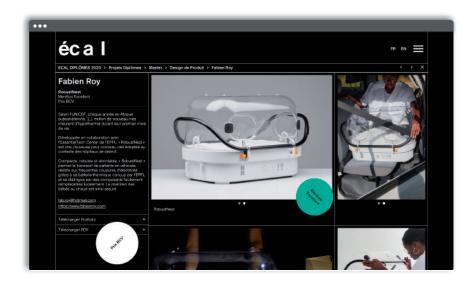
Technology: HTML/CSS Node.js Javascript

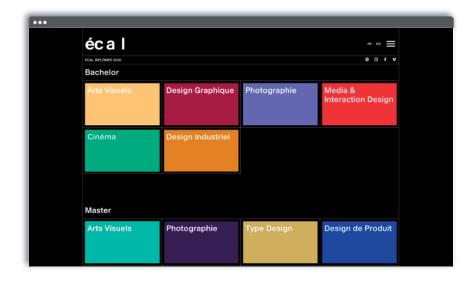
Publication: 2020

An exhaustive Yearbook of graduates' projects from ECAL. Visitors can browse through the entire online collection and also enjoy the physical space through a virtual 3d-visit.



### ECAL Yearbook







### ETH Zurich, Christ & Gantenbein

Client:

ETH Zurich, Christ & Gantenbein, Zürich

Link:

christ-gantenbein.arch.ethz.ch

Art direction: Marie Lusa, Zürich

Development: Computed·By

Technology: HTML/CSS Node.js Javascript

Publication: 2020

Website for design studio at ETHZ of Basel-based architects Emanuel Christ & Christoph Gantenbein.



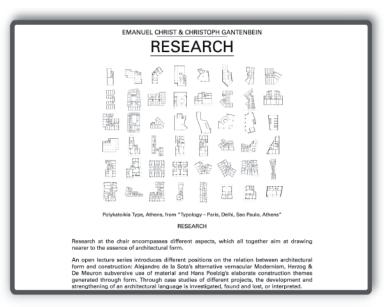
### ETH Zurich, Christ & Gantenbein

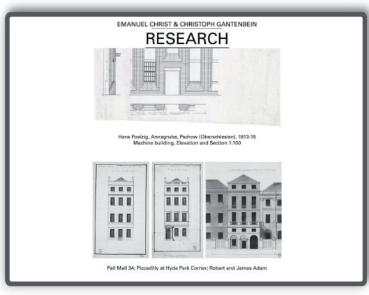
**EMANUEL CHRIST & CHRISTOPH GANTENBEIN** 

NEWS
DESIGN STUDIO
SEMINAR WEEK
LECTURE
RESEARCH
PUBLICATION
CONTACT



### ETH Zurich, Christ & Gantenbein





# EMANUEL CHRIST & CHRISTOPH GANTENBEIN **NEWS**

### Fondation Oskar Kokoschka

Client:

Fondation Oskar Kokoschka

Link:

www.oskar-kokoschka.ch

Art direction:

Atelier Poisson, Renens

Development:

Computed-By

Technology:

HTML/CSS Node.js

Javascript

Custom CMS

Publication:

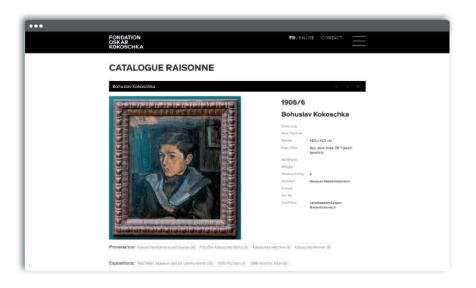
2020

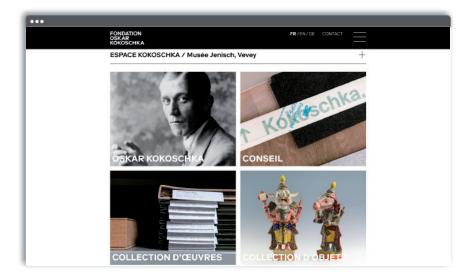
Website and online collection management with ArtPlus integration.

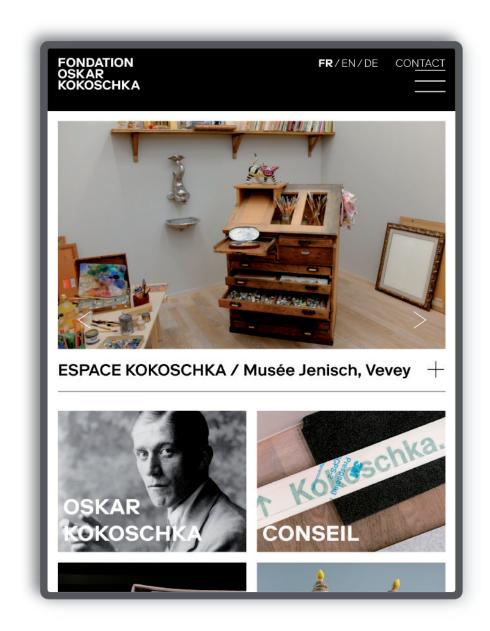


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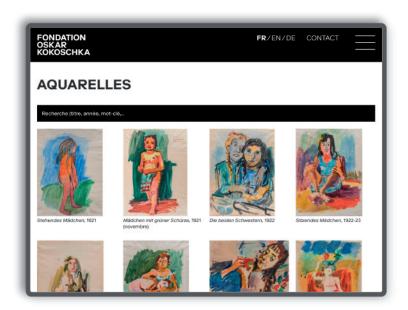
### Fondation Oskar Kokoschka







### Fondation Oskar Kokoschka









### Digital visual studies

Client:

University UZH, Zurich

Link:

imagegraph.cc

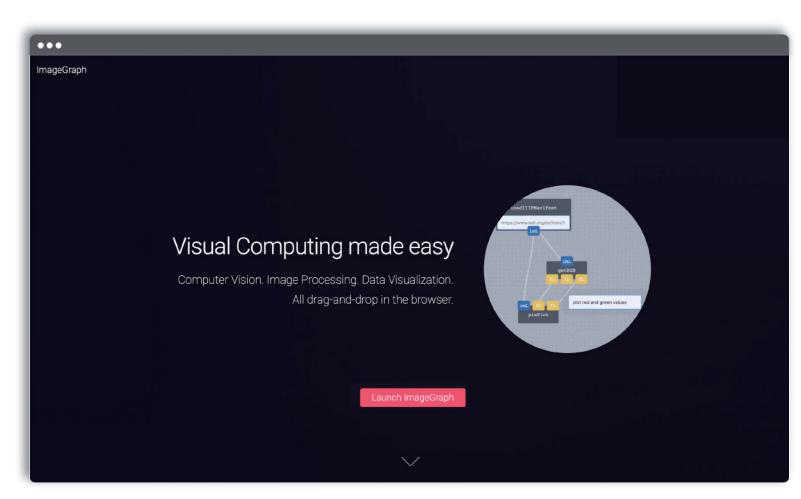
Art direction: Computed·By

> Development: Computed·By

Technology: HTML/CSS Customized CMS Node.js Javascript

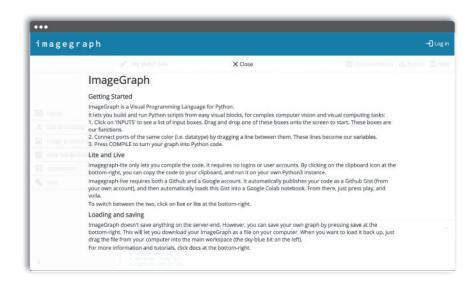
Publication: 2020

Imagegraph is visual programming tool that lets users create and run complex computer vision code through an intuitive web interface.



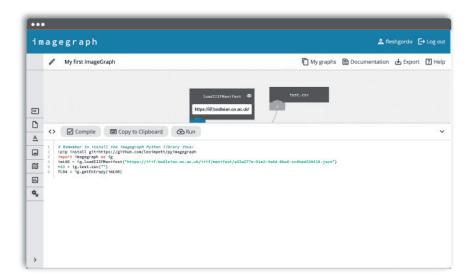
C·By Portfolio – 06.21

### Digital visual studies









### La Manufacture

Client:

La Manufacture, Lausanne

Link:

www.manufacture.ch

Art direction:

About Blank, Renens

Development:

Computed-By

Technology: HTML/CSS

Customized CMS

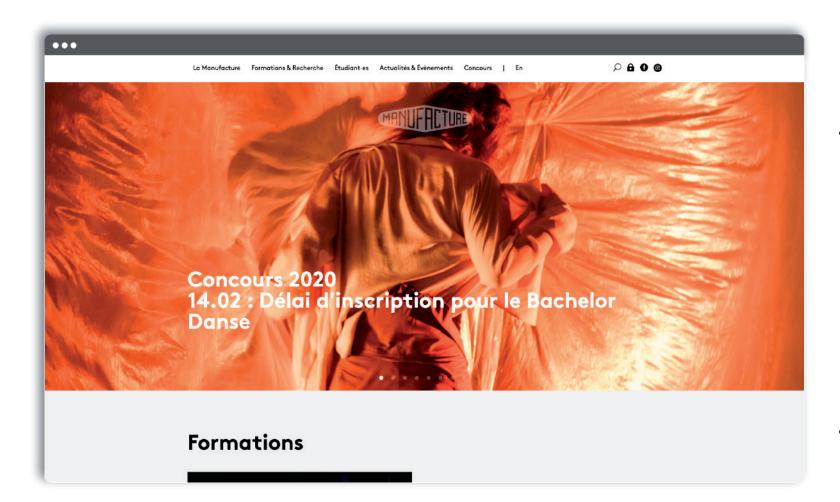
Node.js

Javascript

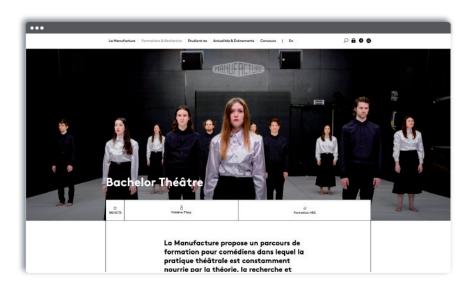
Publication:

2018-2020

Website for La Manufacture (Haute école des arts de la scène).



### La Manufacture







### Muzeum Susch

Client:

Muzeum Susch

Link:

www.muzeumsusch.ch

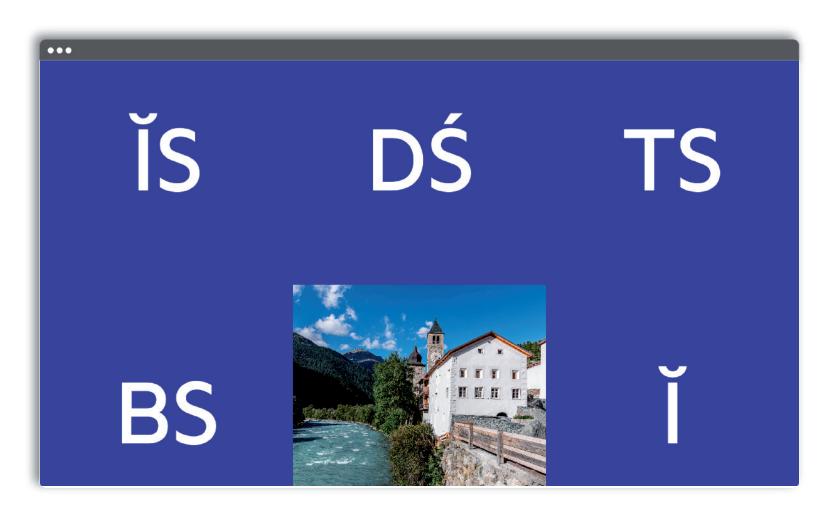
Art direction: Marie Lusa, Zürich

> Development: Computed·By

Technology: HTML/CSS Node.js

Publication: 2018

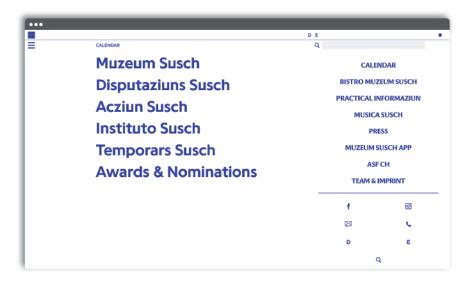
Website for Muzeum Susch in Engadine (Switzerland).

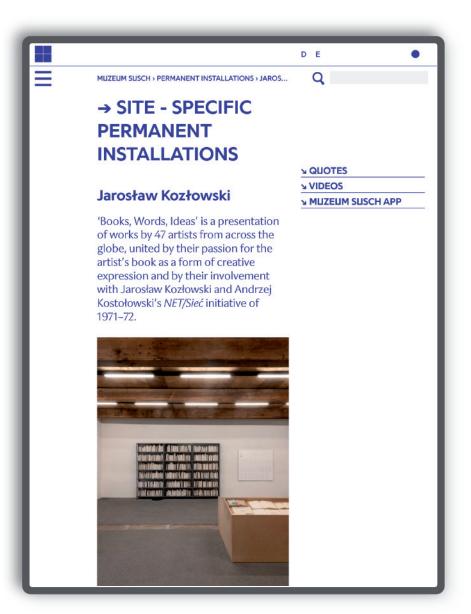


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### Muzeum Susch







### Muzeum Susch





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Up to and Including Limits: After Carolee Schneemann

**Curated by Sabine Breitwieser** 

29 December 2019 - 28 June 2020

Taking the influential work of the late American artist Carolee Schneemann (1939–2019) as a point of departure, this exhibition will illuminate how Schneemann's artistic legacy resonates in the work of generations of artists succeeding her. Featuring over 60 works by 13 artists and collectives, spanning from the 1980s to the present-day, in dialogue with ten seminal works by Schneemann, the exhibition examines the shifting boundaries of disciplines, medium and content in art over time and how these media and thematic boundaries remain under discussion in contemporary

art.

### ECAL Cinema

Client:

ECAL, Lausanne

Link:

www.ecal-cinema.ch

Art direction:

Bilal Sebei, Lausanne

Development:

Computed-By

Technology:

HTML/CSS

Customized CMS

Node.js

Javascript

Publication:

2018-2020

Website and video platform for cinema department at ECAL.

••• ECAL Cinéma 2019 Le Cinéma à l'ECAL Année Propédeutique 1<sup>re</sup> année Bachelor 2º année Bachelor 3º année Bachelor — Diplômes **Master Cinéma** Memento

### ECAL Cinema

### ECAL Cinéma 2019

3º année Bachelor - Diplômes

Adèle Beaulieu, Les Enfers, 14'30"



Agnese Làposi, Alma nel Branco, 25'

Léonard Sinclair, Maxime Beaud, Belle Dune - See You Later Alligator, 25'

Léonard Vuilleumier, Dans ces rues, 24'

### ECAL Cinéma 2019

3° année Bachelor - Diplômes

Julietta Korbel, Still Working, 17'

Adèle Beaulieu, Les Enfers, 14'30"

Agnese Làposi, Alma nel Branco, 25'

Léonard Sinclair, Maxime Beaud, Belle Dune - See You Later Alligator, 25'

Léonard Vuilleumier, Dans ces rues, 24'

Master Cinéma

Memento

### ECAL Cinéma 2019

### Master Cinéma

Vuk Vukmanovic, J'ai rêvé de El Zahir, 6'

Diplômes Master Cinéma ECAL/HEAD

Dakar, Sénégal Grand voyage Master

Notre troupe court de trottoir en trottoir dans la nuit dakaroise. Six micros sur pattes pour documenter dans la rue le travail d'un photographe. S'incruster sans être intrusif. Eviter les pièges de l'exotisme quand on enregistre pour la première fois les sons d'une ville africaine. Résultat: une création sonore de 14 minutes, Goudi Ndakarou, de Khadyja Mahfou Aidara, Alarba Bousso, Malou Briand, Raphaël Meyer, Oumy Sarr Ndoye et Mamadou Sané.

Ensuite, J'ai rêvé de El Zahir, un travail en solo de Vuk Vukmanovic, pugnace preneur de son face aux gardes, pour donner voix à la lumière tournante d'un phare bien surveillé. Suggérer l'analogie avec les prières répétitives soufies, une nouvelle de Borges en tête. Transmettre aux auditeurs l'intensité du moment mystique vécu sur place.

Jonas Pool, animateur et journaliste radio



Alarba Bousso, Khadyja Mahfou Aidara, Malou Briand, Oumy Sarr Ndoye, Raphaël Meyer, Mamadou Sané, *Arena*,

### ECAL Cinema

### **ECAL Cinéma 2019**

ECAL Cinéma 2018

Le Cinéma à l'ECAL

Année Propédeutique

1<sup>re</sup> année Bachelor

2° année Bachelor

3º année Bachelor - Diplômes

Master Cinéma

Memento

### ECAL Cinéma 2019

### 2º année Bachelor

Keerthigan Sivakumar, Aurel Ganz, Jegan, 16'

Atelier fiction

Jegan est sujet à des troubles de l'audition qui le font non seulement souffrir, mais occasionnent aussi un dédoublement de personnalité, physique et mental. Avec ce scénario, Keerthigan visait à la fois le récit d'une expérience personnelle et l'invention d'un film de « prestidigitation ». Plutôt que d'envisager des trucages numériques, Keerthigan et Aurel ont choisi l'option... Méliès. Leur travail à quatre mains a essentiellement fouillé cette voie. Keerthi décrivait, Aurel traduisait.

Aurel a procédé avec beaucoup de rigueur et de finesse. Découpage en amont, story-board photos effectué par ses soins, analyse d'effet de montage... la préparation a été fructueuse en idées simples, audacieuses de trucages in situ à la manière des illusionnistes. La mise en œuvre a été jubilatoire à observer durant toute la journée de tournage passée avec eux à la bibliothèque. Chacun était investi à sa tâche, entraînant les acteurs dans leur sillon.

Il y a de beaux moments d'équilibre entre registre dramatique et illusionnisme, et si le temps était compté, Keerthigan et Aurel n'ont jamais renoncé ni à leur ambition ni à celle du film. Un bel hommage à la collaboration et au cinématographe.

Agnès Godard, cheffe opératrice



Coline Confort, Des Joies et des peines, 19'40"

### Brillantmont

Client:

Brillantmont International School Lausanne

Link:

www.brillantmont.ch

Art direction:

Atelier Poisson, Renens

Development: Computed·By

Technology:

HTML/CSS

Node.js

MongoDB

Javascript

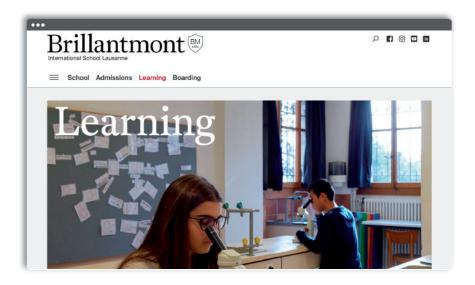
Publication:

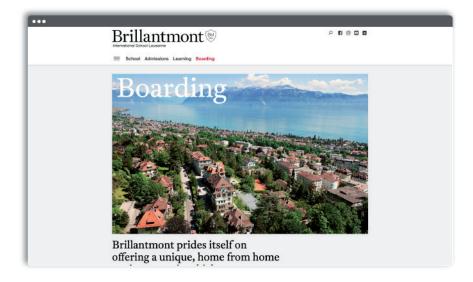
2018-2020

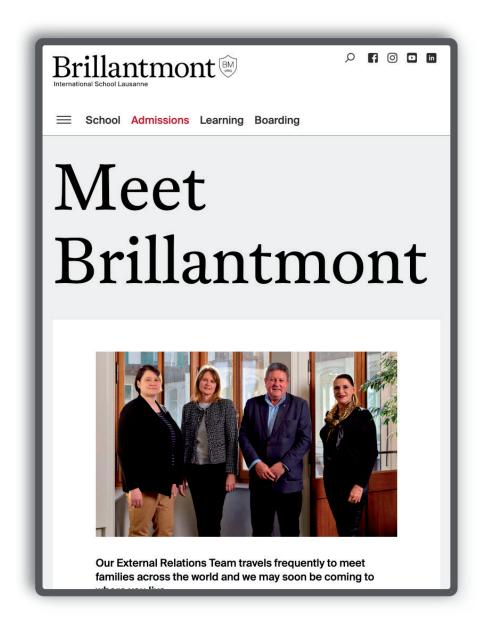
Public website for Brillantmont International School.



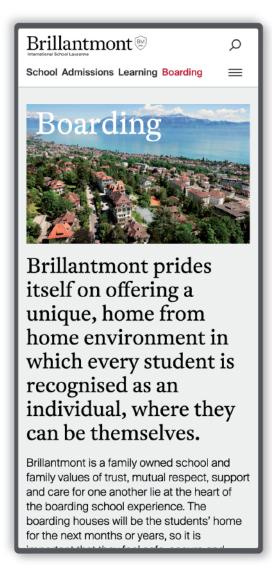
### Brillantmont







### Brillantmont





#### ECAL



Client:

ECAL, Lausanne

Link:

www.ecal.ch

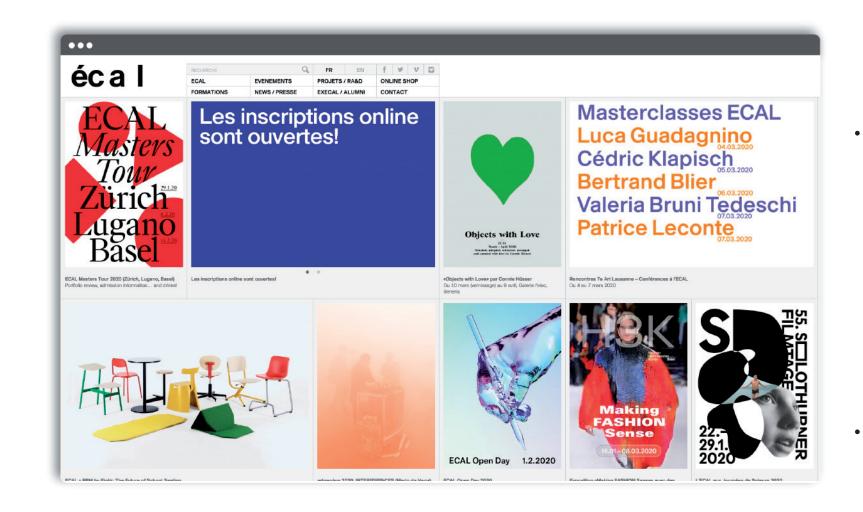
Art direction: Gaël Hugo, Paris

> Development: Computed·By

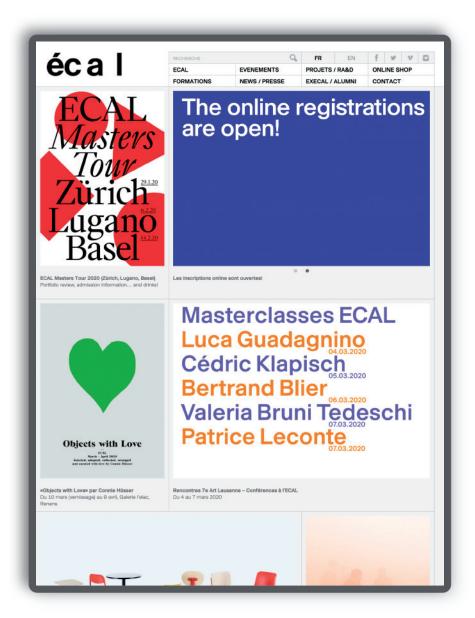
Technology: HTML/CSS PHP/MYSQL Javascript

Publication: 2013-2020

Official website for ECAL, University of Art & Design Lausanne.



#### ECAL







### Le Monde d'Hermès

Client:

Hermès, Paris

Art direction:

Gaël Hugo, Paris

. Illustration:

Mrzyk & Moriceau, Paris

Development:

Computed-By

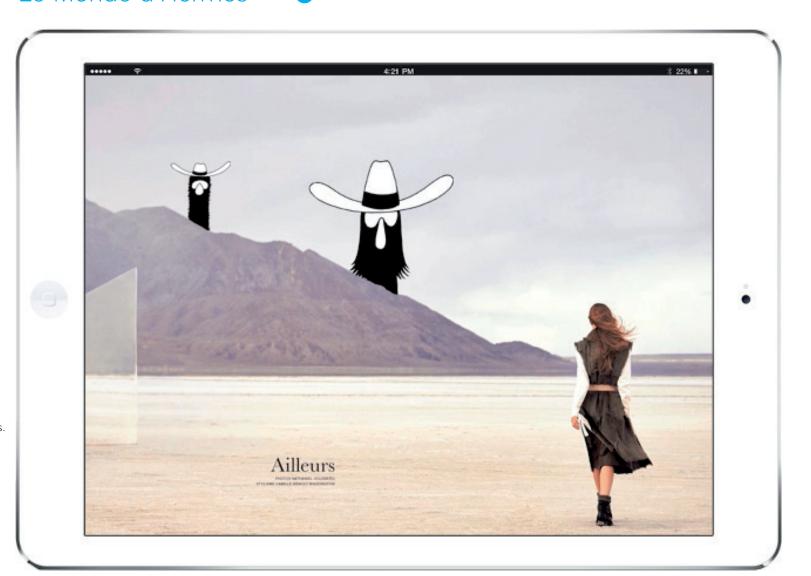
Technology:

OpenFrameworks

Publication:

2014

Mobile app for Hermès' magazine: Le Monde d'Hermès.



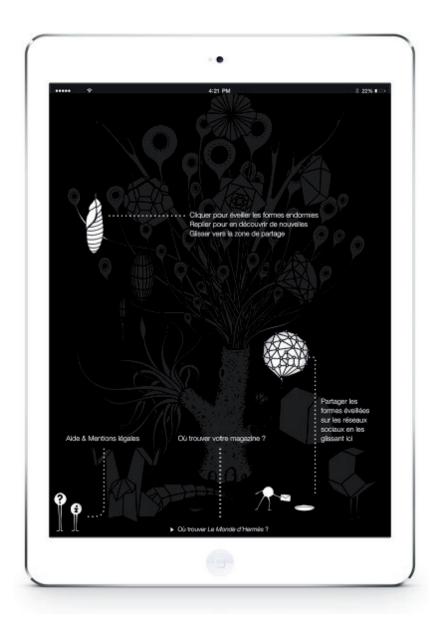
# Le Monde d'Hermès





## Le Monde d'Hermès





#### Musée de la main

Client:

Musée de la main, Lausanne

Link:

www.museedelamain.ch

Art direction:

Atelier Poisson, Renens

Development:

Computed-By

Technology:

HTML/CSS

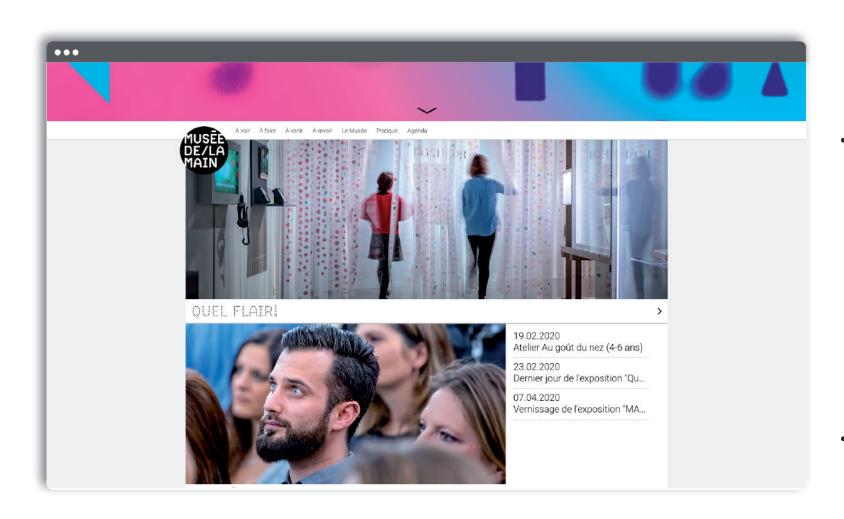
Node.js

Javascript

Publication:

2014-2020

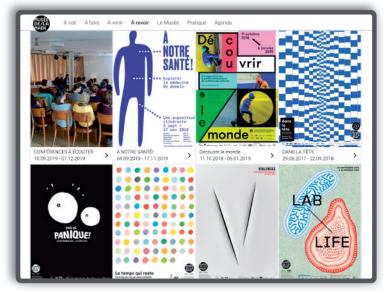
Responsive website for the Musée de la main.



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#### Musée de la main









# Artligue

Client:

Artligue, Paris

Link:

www.artligue.fr

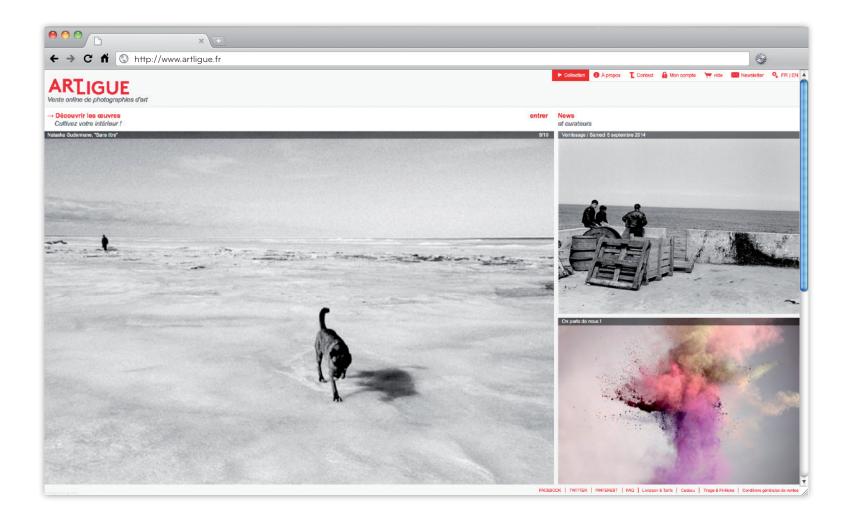
Art direction: Gaël Hugo, Paris

> Development: Computed·By

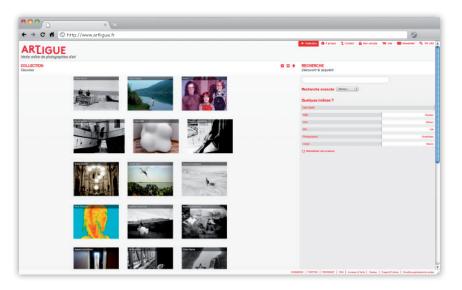
Technology: HTML/CSS PHP/MYSQL Javascript

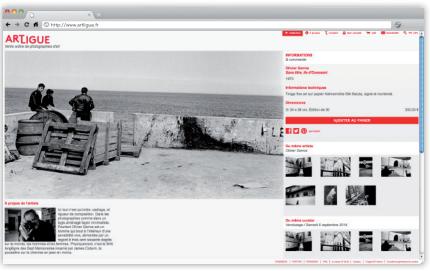
Publication: 2012

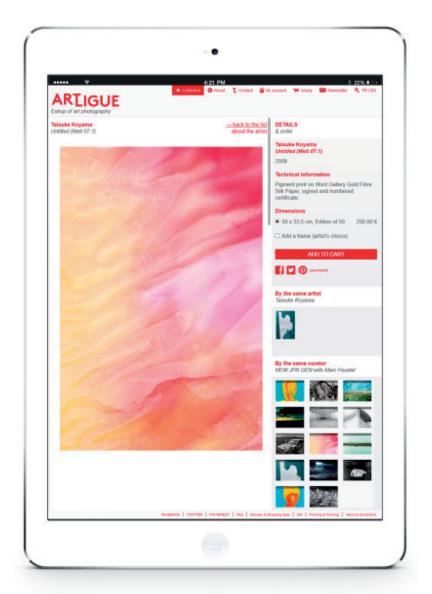
Website for Artligue,
 a photography gallery
 based in Paris.



## Artligue







#### Daniela & Tonatiuh

Client:

Daniela Droz & Tonatiuh Ambosetti, photography

Link:

www.daniela-tonatiuh.ch

Art direction:

Ludovic Balland, Basel Daniela Droz, Lausanne

Development:

Computed-By

Technology:

HTML/CSS

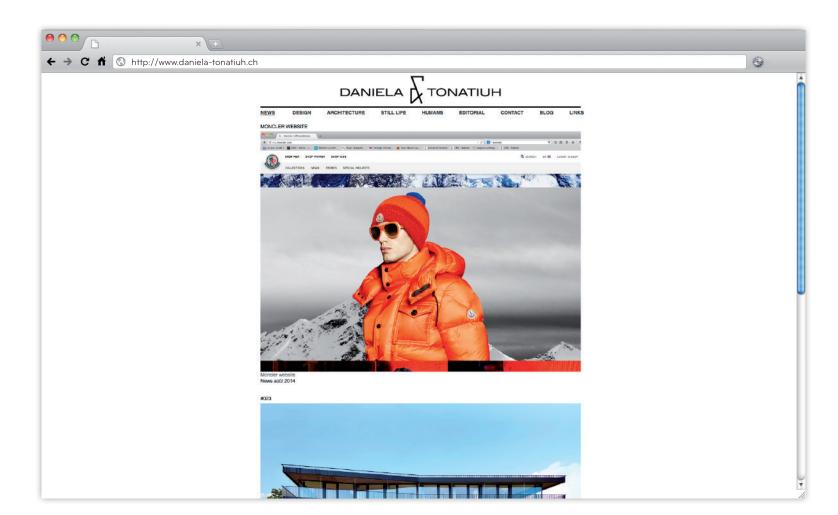
PHP/MYSQL

Javascript

Publication:

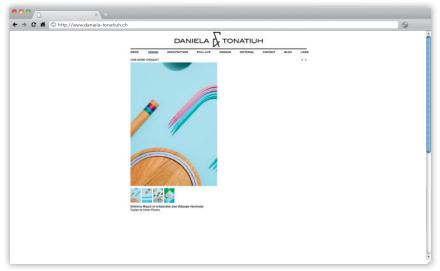
2012

Simple website for the photography agency Daniela & Tonatiuh. Intuitive CMS.



#### Daniela & Tonatiuh







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#### Happypets

Client:

Happypets, Lausanne

Link:

www.happypets.ch

Design:

Happypets, Lausanne

Development:

Computed-By

Technology:

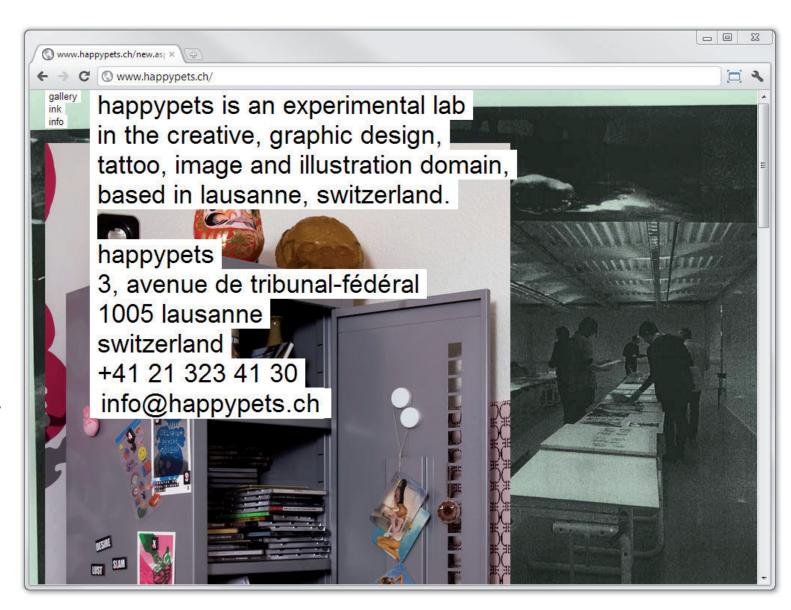
HTML/CSS

Javascript

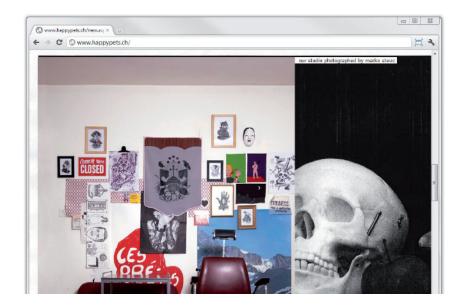
Publication:

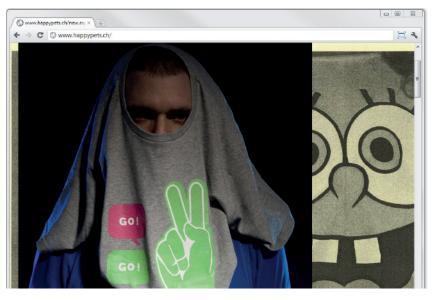
2009

Website for the creative agency and tattoo studio Happypets.

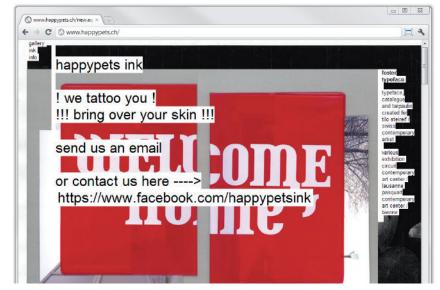


# Happypets









Art & Architecture Projects

# Atomized (curatorial) Functioning

Client:

fabric | ch, Lausanne

Concept & Architecture: fabric | ch, Lausanne

Development: Computed·By

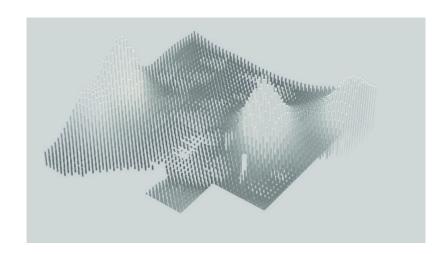
Technology: Machine Learning

Publication: 2019-2020

Automated scenography and curating using an Al layer for autonomous spatial and functional exploration, in addition to base algorithmic software piece.



# Atomized (curatorial) Functioning







# IICloud(s)



Client:

ECAL, Lausanne

Layout:

ECAL, Lausanne

Development: Computed·By

Technology:

HTML/CSS

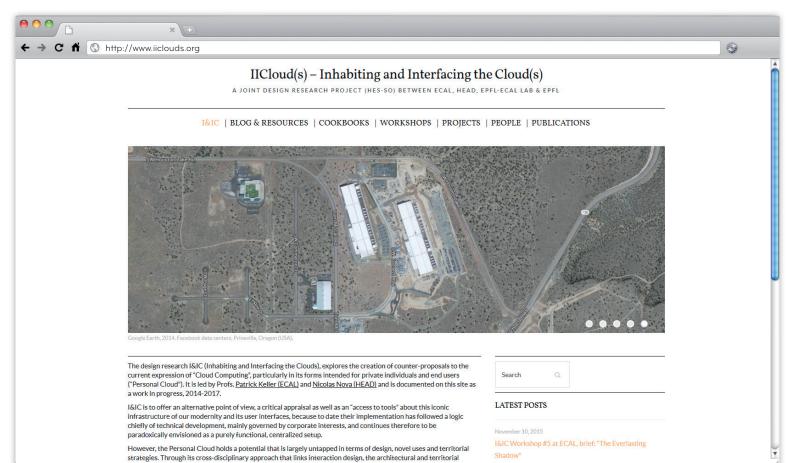
Javascript

 ${\sf WordPress}$ 

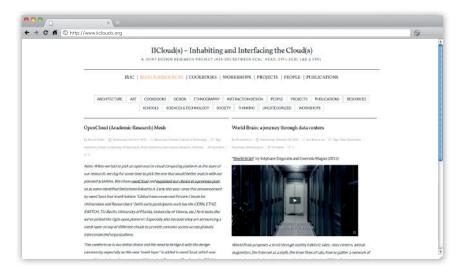
Publication:

2015-2017

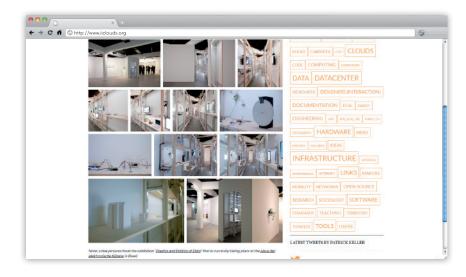
Simple website/blog for the research project IICloud(s) - Inhabiting & Interfacing the Cloud(s) involving ECAL, HEAD, EPFL and EPFL-ECAL Lab.



#### IICloud(s)









#### Ecole des Morettes

Client:

Commune de Prangins

Art Direction & concept: ECAL, Lausanne

Concept:

«Musicarium» by Clément Chavanne and Matthieu Huegi, ECAL

Music:

Lullatone, Japan

Development:

Computed-By

Technology:

Web app

Publication:

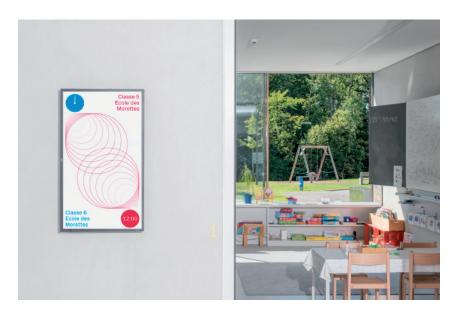
2015

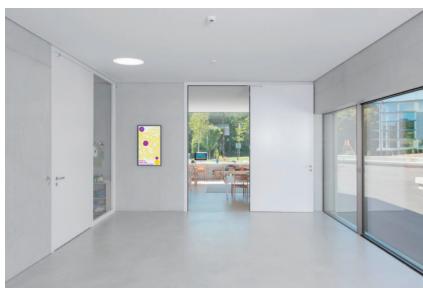
Web app with animations based on sound tracks. Coordination of four different sound tracks to compose a music. CMS.

Pictures ECAL/Younès Klouche



### Ecole des Morettes













#### Poetics & Politics of Data

Client:

HEK Basel

Architect:

fabric | ch, Lausanne

Development:

Computed·By

Technology:

Sensors

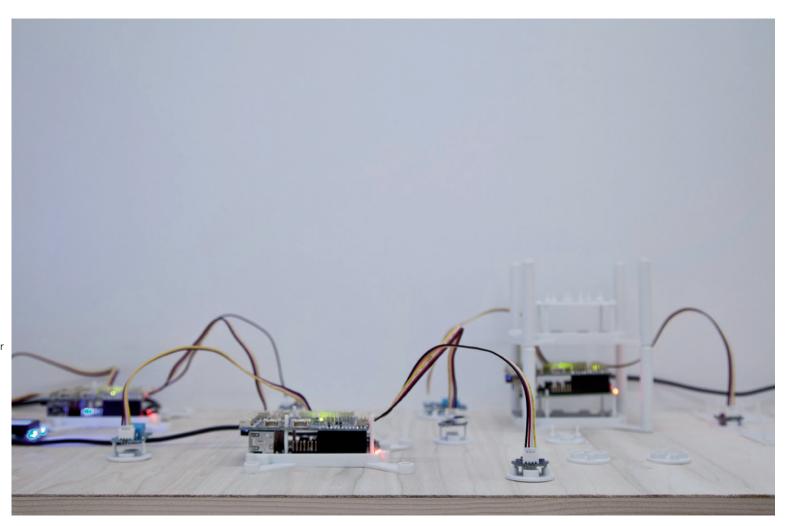
Raspberry Pi

Publication:

2015

Software and hardware set up for the exhibition of IICloud(s) at HEK Basel during the exhibition "Poetics and Politics of Data".

Pictures David Colombini



# Poetics & Politics of Data







#### DataDroppers

Client:

fabric | ch, Lausanne

Concept:

fabric | ch, Lausanne

Development:

Computed-By

Technology:

HTML/CSS

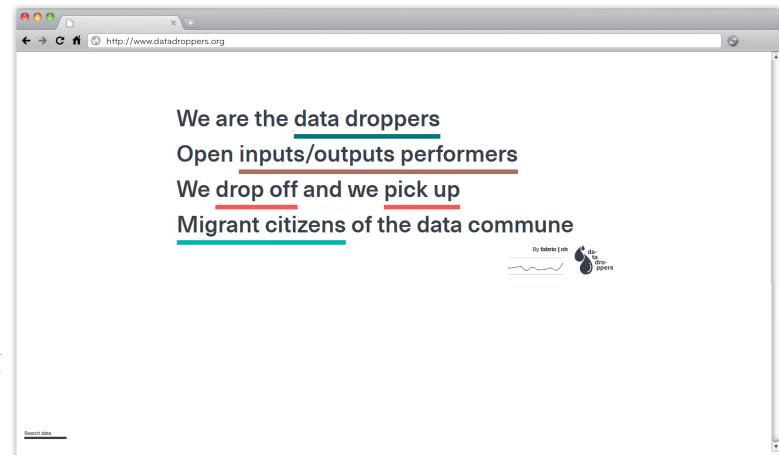
Json

Javascript

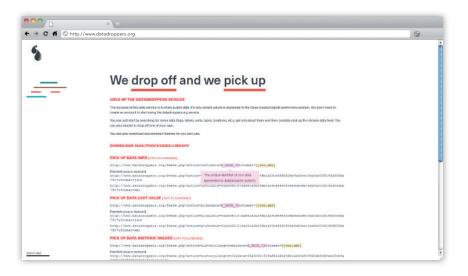
Publication:

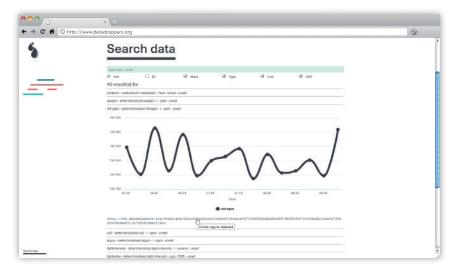
2015

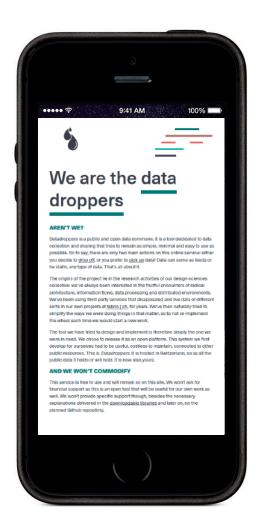
Website and data management for the project DataDroppers by fabric | ch.



# DataDroppers







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#### Globale Surveillance

Client:

ESAM, Caen

Director:

Eric Sadin, Paris

Architecture:

fabric | ch, Lausanne

Development:

Computed-By

Technology:

Sensors

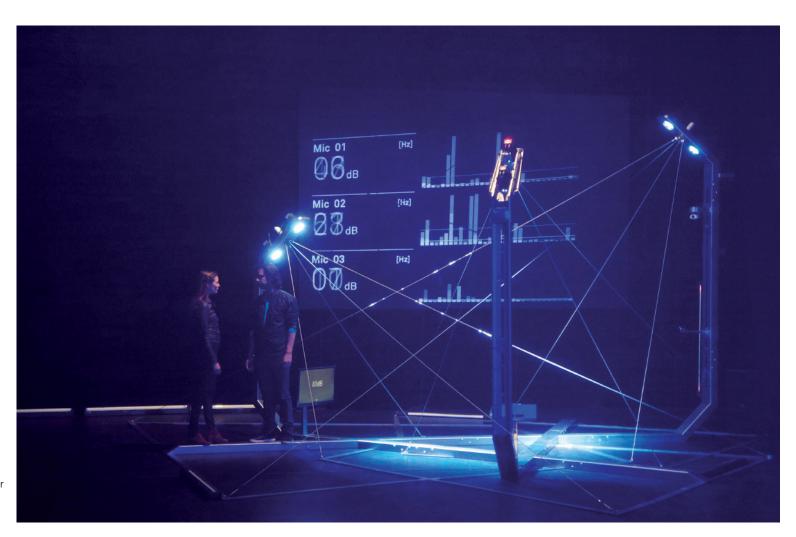
Linux server

Adobe Flash

Publication:

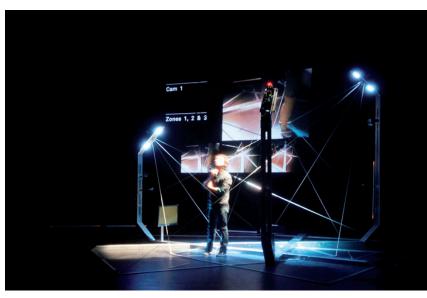
2012

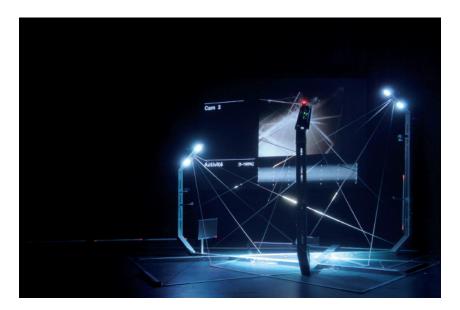
Interactive installation created for the theatrical play Globale Surveillance by the French writer Eric Sadin, in collaboration with fabric | ch.

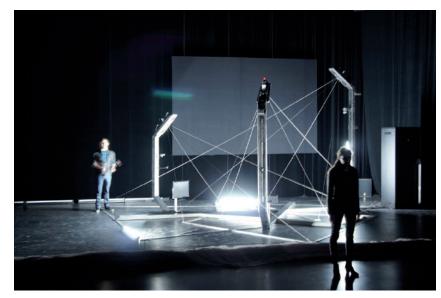


# Globale Surveillance









## Arctic Opening

Client:

MIMI Festival, Marseilles

Architect:

fabric | ch, Lausanne

Development:

Computed-By

Technology:

Sensors

LEDs

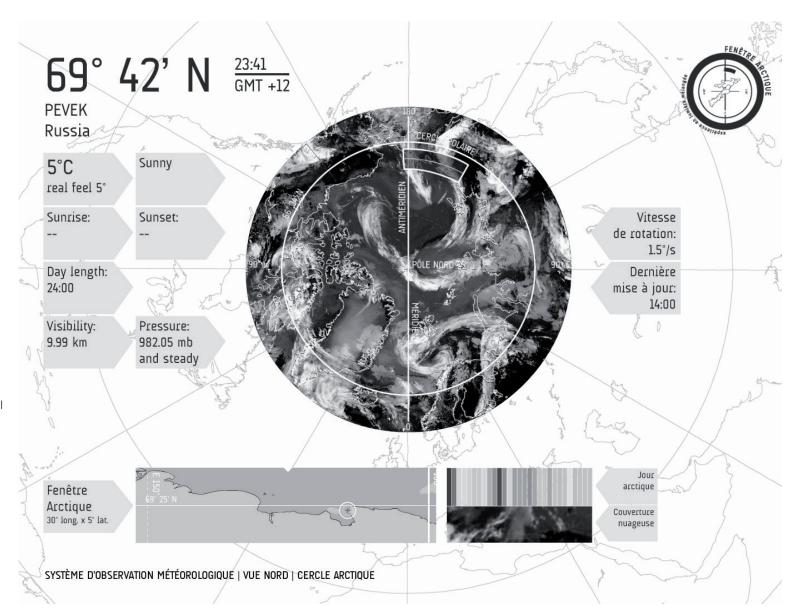
Open Data

Adobe Flash

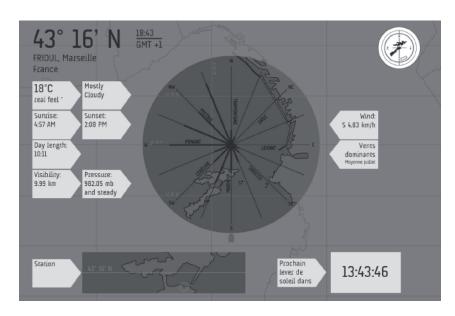
Publication:

2010

Software and interface for Arctic Opening, an architectural installation by fabric | ch.



# Arctic Opening









# Domestic Astronomy

Client:

Louisiana Museum for Modern Art, Humlebæk (Denmark)

Architect:

Philippe Rahm, Paris

Development:

Computed·By

Technology:

Sensors

С

Adobe Flash

Publication:

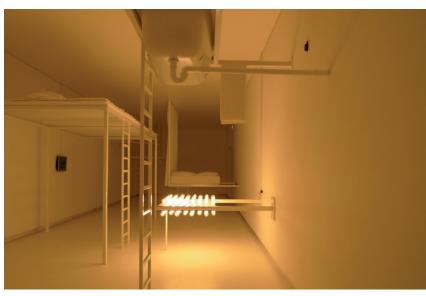
2009

Software and interface for Domestic Astronomy, a project by Philippe Rahm at Louisiana Museum for Modern Art.

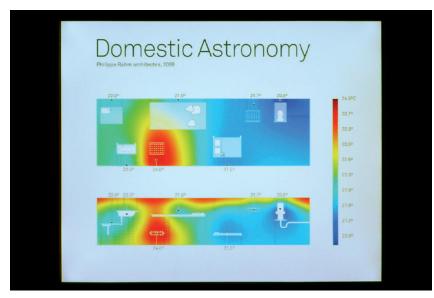


# Domestic Astronomy









## Leslie

Client:

Printemps de Septembre, Bordeaux

Artist:

Philippe Decrauzat, Lausanne

Development: Computed·By

Technology: Motors, loud speakers

Adobe Flash

С

Publication: 2008

Installation created by Philippe Decrauzat with a rotating arm and programmed sounds.

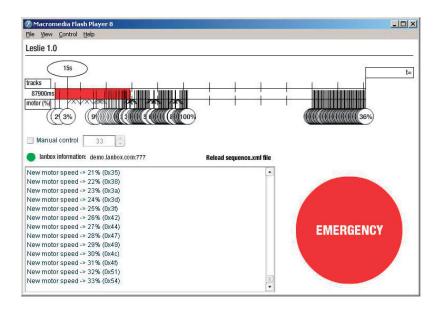


#### Leslie









# Météorologie d'intérieur

Client:

Canadian Centre for Architecture Montreal

Architect:

Philippe Rahm, Paris

Development: Computed·By

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Technology:

Sensors

Adobe Flash

Publication:

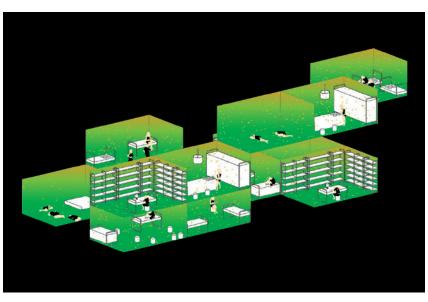
2006

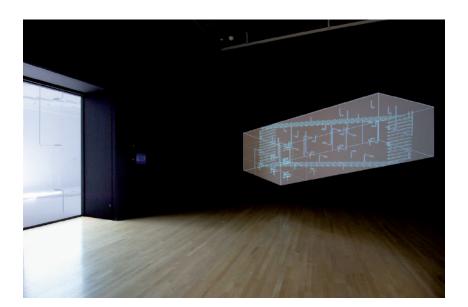
Software and interface for "Météorologie d'intérieur" by Philippe Rahm at Canadian Centre for Architecture, Montreal.

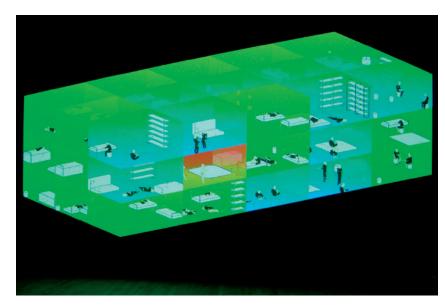


# Météorologie d'intérieur









#### Technologies

Our multidisciplinary team is able to develop projects in different frameworks involving a multitude of technologies and various programming languages, either for web-based projects, mobile apps or digital installations.

We master programming languages such as: JavaScript, PHP, HTML5, CSS3, NoSQL, SQL, Json, Java, Objective-C, C#, C, C++, Python

We are used to working in frameworks such as: Node.js, LAMP/WAMP, Eclipse, Xcode, openFrameworks, Processing, .NET

We can successfully interconnect or interface hardware technologies such as:

KNX, DMX, DALI, AR/VR components, environmental sensors, GPS with web, mobile and stand-alone applications.

#### Works with art directors

Computed·By collaborates with a large network of top-level art directors based both in Switzerland and Europe.

- Marie Lusa, graphic design, Zürich
- Gilles Gavillet, Gavillet & Cie, graphic design, Geneva
- Giorgio Pesce, Atelier Poisson, graphic design, Lausanne
- Harry Bloch, Harris Blondman, graphic design, Rotterdam
- Zak Kyes, Zak Group, graphic design, London
- Gaël Hugo, One More Studio, interaction design, Paris
- INT Studio, interaction design, Lausanne
- Milo Keller, Twin Room, photography, Paris
- Daniela Droz & Tonatiuh Ambrosetti, photography, Renens
- Philippe Rahm architects, architecture, Paris
- Patrick Keller, fabric | ch, architecture, Lausanne
- ...

#### Works for clients

Hermès, Swatch Group, ECAL, MAMCO, Louisiana Museum, Muzeum Susch, FRAC Nord - Pas de Calais, Musée de la main, CCA, Philippe Rahm architects, Christ & Gantenbein architects, Artligue, Philippe Decrauzat, Daniela Droz & Tonatiuh Ambosetti, Happypets, La Manufacture - Haute école des arts de la scène, EPFL, ETHZ, UNIL, Nelly Wenger Associates, Brillantmont International School, BAT Switzerland, NetProjet, City of Lausanne, SILL, etc.

#### History

Computed By is a sister project of fabric ch, an architectural interaction & research company, which since 1997 has created and exhibited numerous on and offline projects involving code, interfaces, computers, networks and other technologies.

The founders of fabric ch were regularly asked by designers and architects for assistance in developing projects which required technology and were increasingly confronted with the needs of high-profile programming. This led to their decision to open an agency committed to the development of code and programming - Computed By was born. It is a new kind of engineering company dedicated to the design industry, a game changer. Just as civil engineers collaborate with architects, Computed By aims to collaborate with creative people from the design industry at large. It brings its wide experience and IT knowledge gained by long-term cooperation with designers to develop and manage creative projects.

# Computer scientists and interaction engineers

Christian Babski Stéphane Carion Michaël Chablais Raphaël Maurer Gordan Savicic

#### Project managers

Christian Babski Christophe Guignard

#### Integration

Keumok Kim

# Computed · By

Coding creative projects

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+41.21.351.10.20 contact@computedby.com