

Nicolas Mimault  
Interaction designer



Selected works 2023

# YOU ARE ABOUT TO SEE

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# ABOUT ME

Hi !

My name is **Nicolas Mimault**,  
I'm a **27 year old**  
**french interaction designer.**



## MY APPROACH

My creative process focuses on **user experience**:  
I like to use my skills to contribute to **spreading art culture**. I am an interaction designer yet I have  
skills in **creative project management**, **digital interfaces**, **coding** and **media arts**.

MY JOURNEY





# IMMERSIVE DESIGN

#GameDesign

#VirtualProduction

#SpeculativeDesign #PFE2021 #UnrealEngine4

# ARTIFICIAL RESILIENCE

In order to imagine the ecosystems of tomorrow and to raise awareness of territorial ecology, the video game Artificial Resilience offers an educational experience. Faced with scenarios of collapse, you play as an AI that must find the techno-ecological combination to shape a resilient and environmentally friendly humanity. From low-tech to green tech, explore ecological imaginaries, experiment a possible future and design your utopia.

```
_initialisation....
_AI_55B1 connected
.....
_downloading...
~/nicolasmimault.com/artificial-resilience-program
_loading video game.....
-
```

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## BIENVENUE SUR VOTRE TERRITOIRE !

Vous devez développer votre société et répondre aux besoins primaires de votre communauté.

Commencez par sélectionner des technologies à utiliser sur votre territoire.

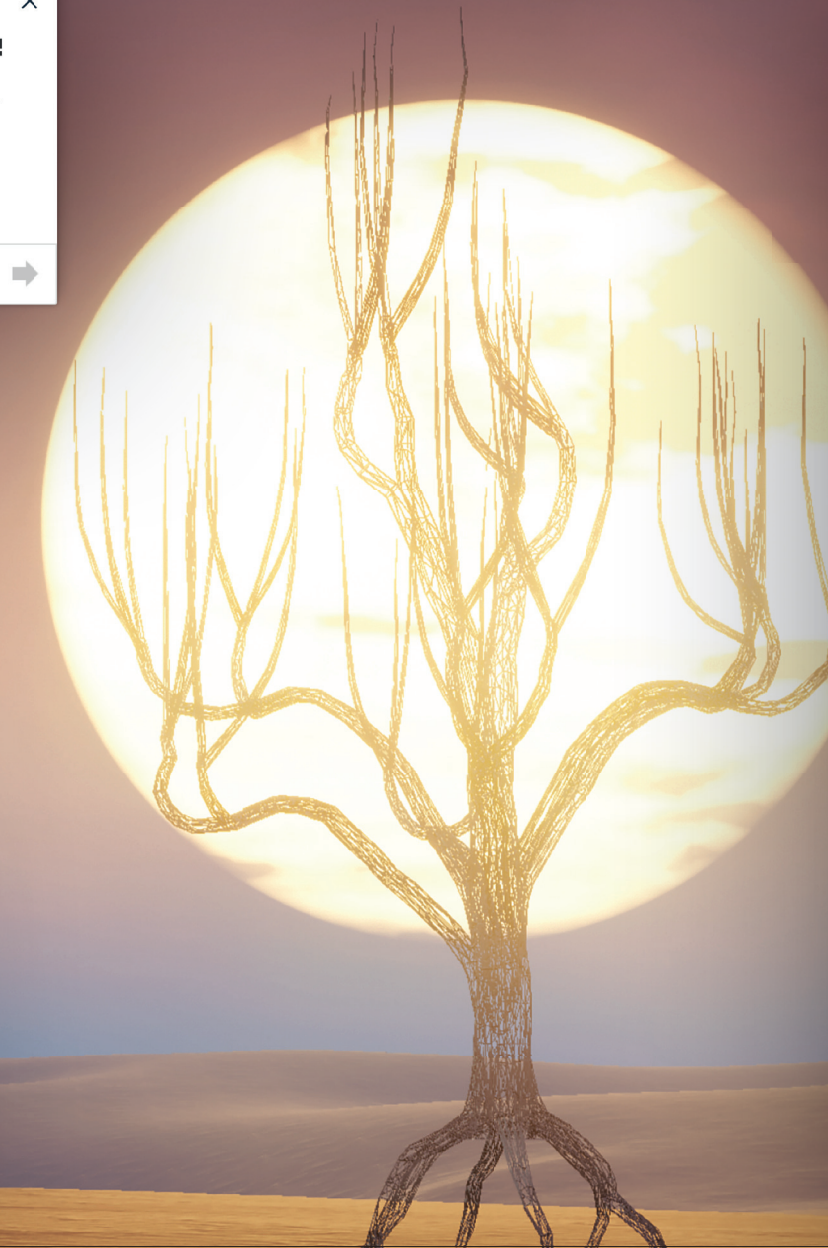
### Productions du territoire

|    |            |     |
|----|------------|-----|
| ⚡  | Energie    | 0kW |
| 🌊  | Eau        | 0m3 |
| 🍴  | Nourriture | 0t  |
| 🗑️ | Pollution  | 0t  |
| 🛡️ | Guerisons  | 0%  |



0% 0%

0/50 0/20000m²



### CENTRALES

 **Éolienne 200W**

Consommation

⚡ 0,01 kW

🌊 3 m3

🍴 0t

🗑️ 0t

Production

🗑️ 2t

⚡ 0,2 kW

+12 kW

⚡ Energie

👤 1 🏠 502m² ⌚ 2 heures

EN SAVOIR PLUS

 **Nucléaire**

Consommation

⚡ 2kW

🌊 89m3

Production

🗑️ 52t

⚡ 50 kW

+255 kW

⚡ Energie

👤 3 🏠 2m² ⌚ 1 heures

EN SAVOIR PLUS

 **Thermiques CCG**

Consommation

Production

🗑️ 0.2t

+102 kW

⚡ Energie

👤 0 🏠 1m² ⌚ 10 heures

EN SAVOIR PLUS

⚡

🌊

🍴

🗑️

🛡️

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#ImmersiveDesign #Exhibition #UE4

# ARCHIPEL

## OYÉ LABEL

Co-created with Paul Vivien from Oyé Label

Archipel is an **experimental video game** where players explore virtual islands. Each island obeys its own rules and allows players to dis-covers new emotions and possibilities in a poetic way.

This project is **born from the first lock-down**. We **focused on exploration and immersive experiences** to let the players travel again, yet, in virtual worlds that we imagine to be as mystic as uniques.

This video game was exhibited for the first time in June 2021 at the digital art exhibition Atmosphere by 36degrees.



User testing Archipel @Atmosphere 36degès's exhibition



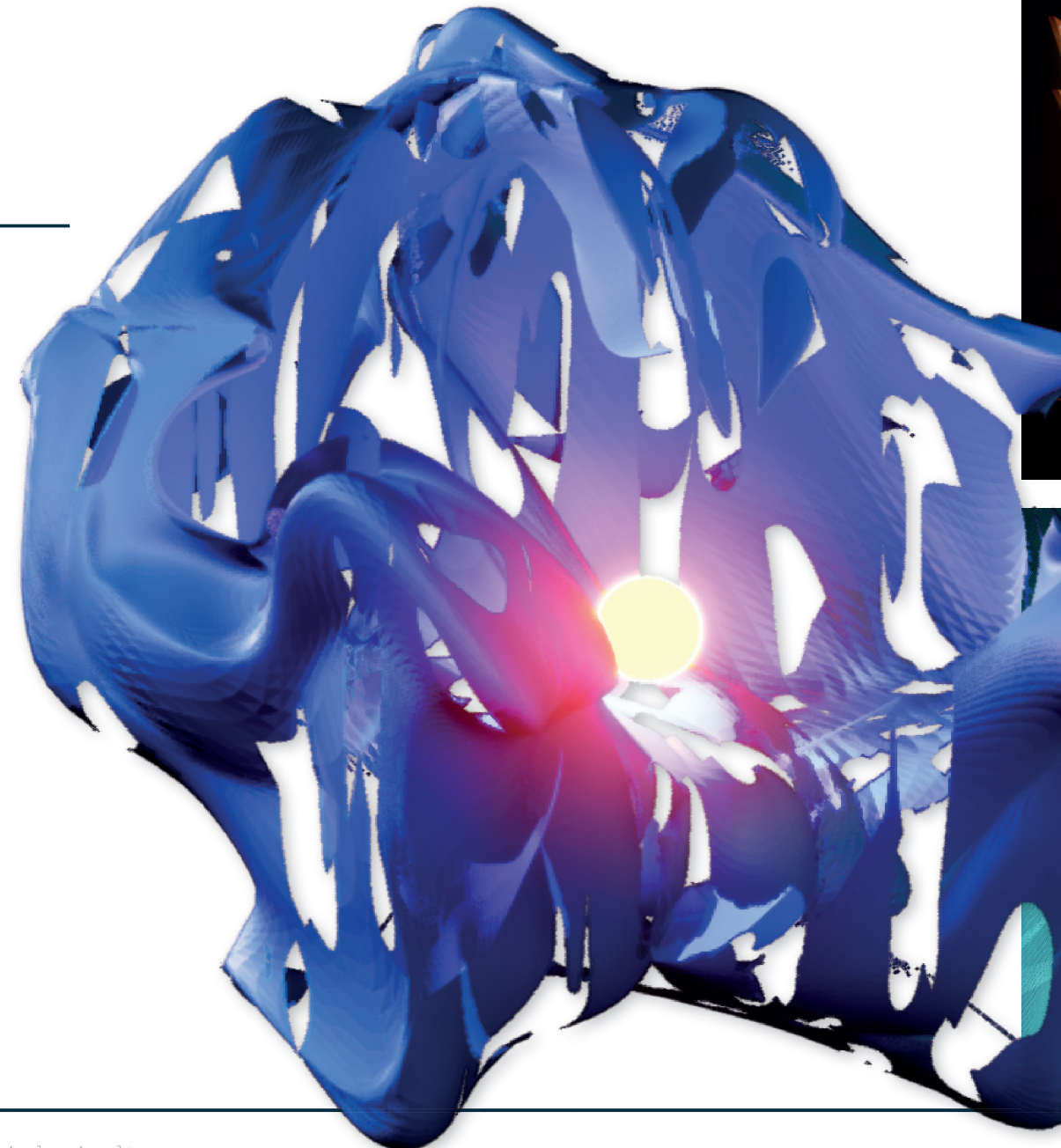
# DIFRAKT

## VIRTUAL PRODUCTION 2022

Metaglitch is a virtual studio for real-time 3D capture based on **Unreal Engine 5**. It allows media artists to **capture interactive 3D scenes reacting to evolving third party data**. The program create 3D previews with real time rendering, potentially **audioreactive**.

The user controls virtual lights of his scene **with the DMX protocol**. Moreover, in this virtual studio you can **transform your scene** (materials, scale, rotation etc.), change viewpoints, move cameras and adjust your post-process **using a midi interface**.

📷 watch more at [nicolasmimault.com/difrakt-studio](https://nicolasmimault.com/difrakt-studio)



# STAGE DESIGN

#LightShow

#VideoMapping



#StageDesign #LightTech

# LIGHT SHOW

## COUCOOL FESTIVAL SINCE 2021

Co-created with Ascidiacea

I designed the main stages for the Coucool festival for two years now. The design was mainly made with a **modular structures** and **matrixed leds**. Our first design aimed to play with light colors and the subtractive synthesis that gives its color to the tubes.

We wanted to immerse the spectators in this colorful world by surrounding them with these structures.

Credit photo Coucool Festival 2021: Oli Bozom







Main Stage @Coucool Festival - photo by Oli Bozom



# LED DESIGN

## SINCE 2019

Scenography co-created with Jules Perriot, Elie Oriol, Michael Sedbon

All begun with a series of events by Parallele in February and March 2019, we created **a modular scene system** with gabions and LEDs. We have realized all the connections and we have developed a software thanks to the **VVVV toolkit to control the LEDs**. An interactive **3D model** allowed us to visualize our scene live and multiple options allow us to manage colors, animations, potentially **sound-reactive**. Since then I had the occasion to specialize myself in led integration and work on several stages including Initial festival in Bordeaux 2022.







Led integration - Main stage Initial Festival 2022  
Design by Constance de Gabory & Ascidiacea



#GenerativeVisuals #VideoMapping #VJing

# VIDEO MAPPING

## SINCE 2017

I had the opportunity to make **video projections mix** during several events. I did some mapping and Vjing with Resolume Arena which awakened my interest in the scenery.

I did the projection of the middle-eastern group Shkoon at the Petit Bain in june 2017. Their live show is available on Youtube and currently cumulates 480000 views.

Credit photo: Thémis Belkhadra





# IxD EXPERIMENTS

#InteractionDesign  
#EducationalProjects  
#ResearchLab



# iSPINING WHEEL

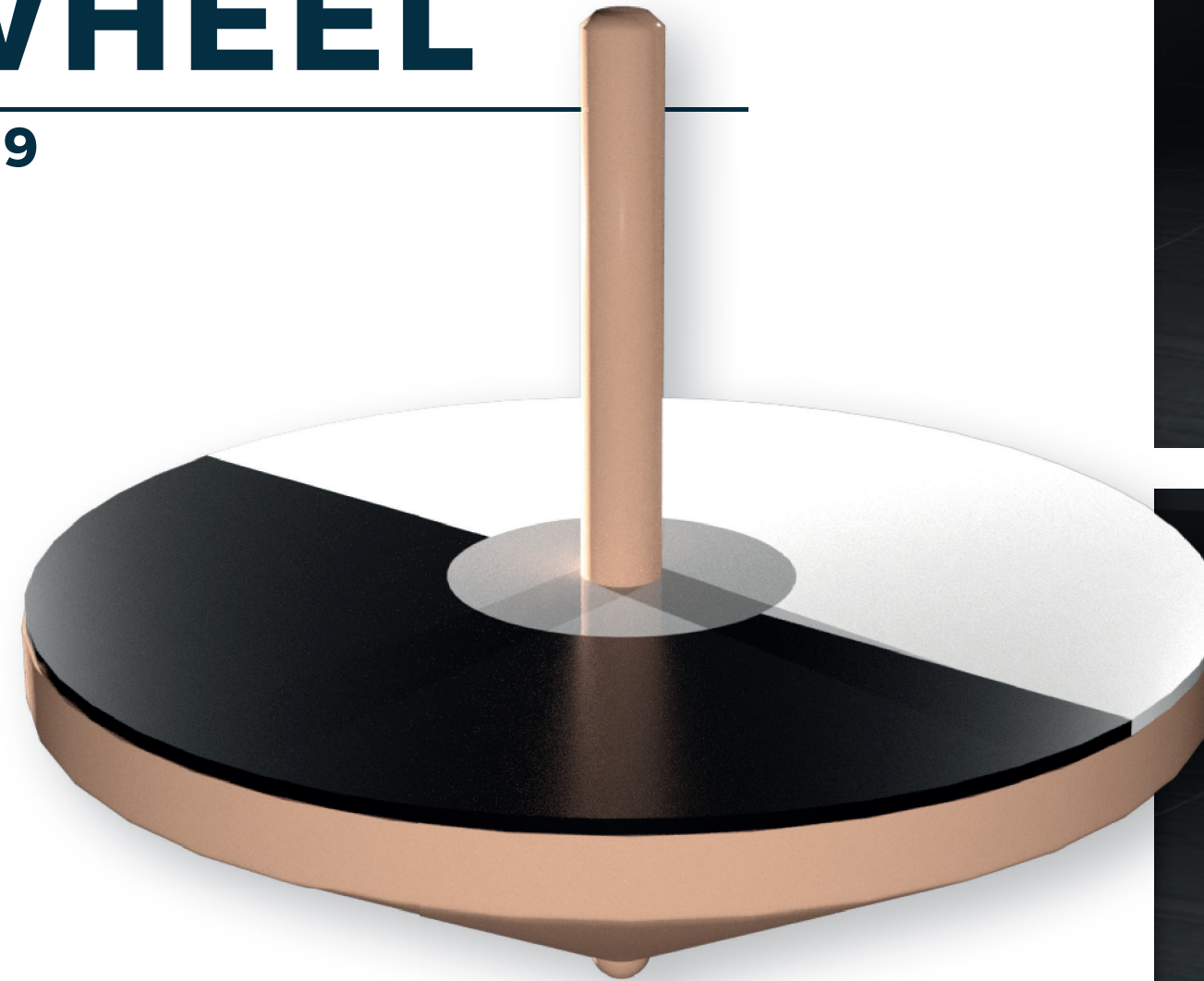
## 3D REAL TIME PROTOTYPE 2019

### [DIGITAL COLOR MIXER]

The iSpining Wheel is a project made with the VVVV open-source toolkit. It connect an **Arduino** microcontroller to a **3D model** to create an interactive **3D prototypes** with tangible controls.

I was inspired for this project by Ludwig Hirschfeld-Mack's **Bauhaus** spinning tops, which represents his study of color relation with frame light and movement. My project allows **studying the mixing of colors in a computer environment**. This digital color mixer, therefore, varies according to the computer ressources and the 3D renderer.

📺 watch video @nicomimault



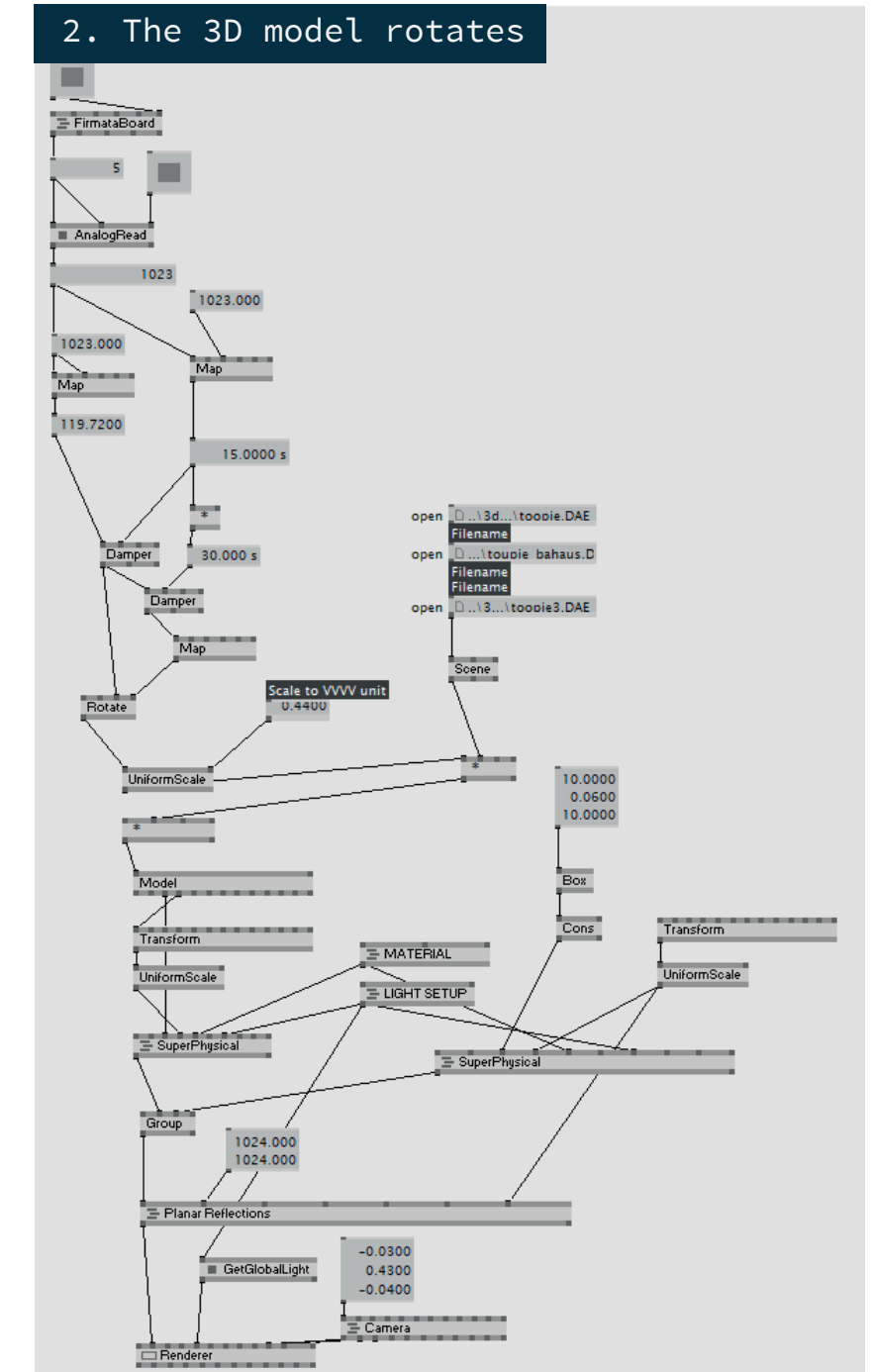
1. Potentiometer activated



3. The spinning top slow down and stops



2. The 3D model rotates



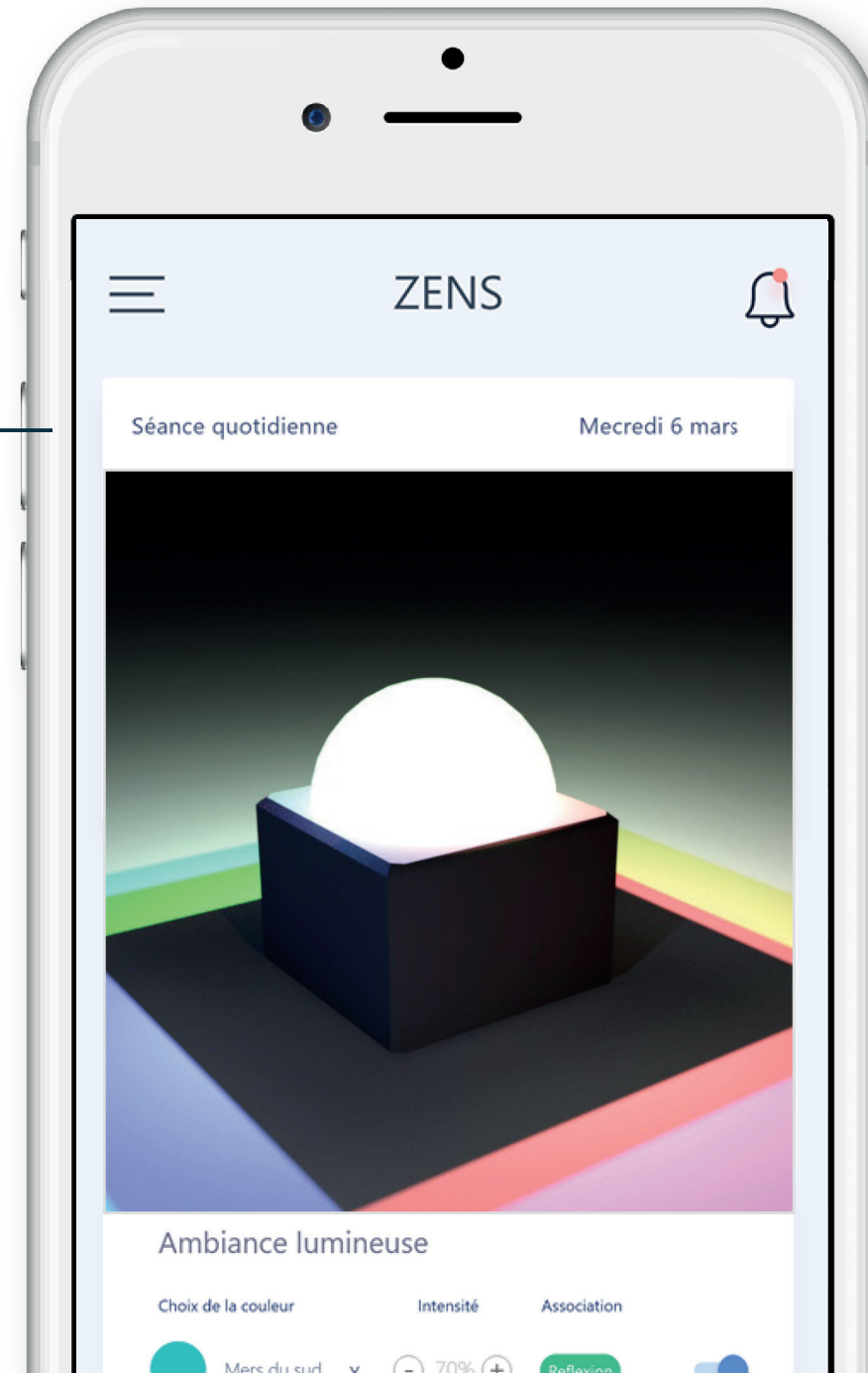


# ZENS

## INTERNET OF EEG 2019

Co-created with Jules Saur, Valentin Leblanc, William Borgomano

Zens is an IOT concept developed in sciences Po which aims to accompany meditation at home. The users are equipped with an EEG (electroencephalogram) headset and benefit from luminous and audio feedback thanks to a connected box during the meditation session. The user can then follow the evolution of his achievements and keep a sensory trace of his session thanks to an app.



### Technical approach

From a technical point of view, the helmet is equipped with electrodes and sends its data to the computer via an Arduino Uno Board. The datas are processed by a classification model trained with TensorFlow. Depending on the data classification, a signal is sent to the Adafruit server which communicates with the microcontroller ESP88 of the box which then emits sensory feedback.

Tensorflow classification model trained with brain datas

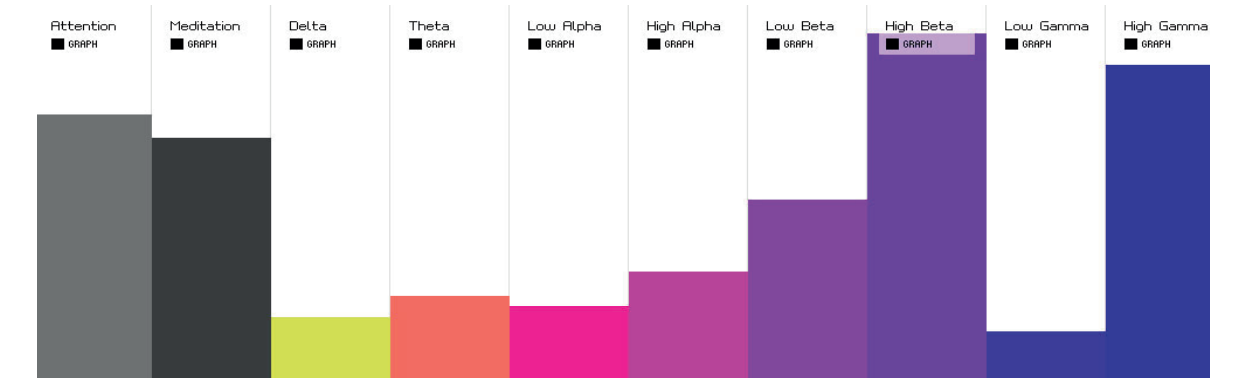
```
data2 = pd.read_csv('test_brain_datas_prediction.csv')
data2 = data2.drop(['connexion'], axis =1)
```

```
X2 = np.array(data2)
print(X2.shape)
#print(Y)
```

(26, 10)

```
prediction = model.predict_classes(data2)
prediction_classes = np.argmax(to_categorical(prediction), axis = 1)
prediction_classes = encoder.inverse_transform(prediction_classes)
print('Predicted class: ', prediction_classes)
```

Predicted class: ['n3' 'n1' 'n3' 'n1' 'n3' 'n1' 'n3' 'n1' 'n3' 'n3' 'n1' 'n3' 'n1' 'n1' 'n3' 'n1' 'n1' 'n1' 'n3' 'n1' 'n3' 'n3']





# WEB DESIGN

#DigitalCreation

#Front-end developement

#CreativeCoding



#Web-design #Front-End #CreativeCoding

# PARALLELE

## WEB DESIGN 2019

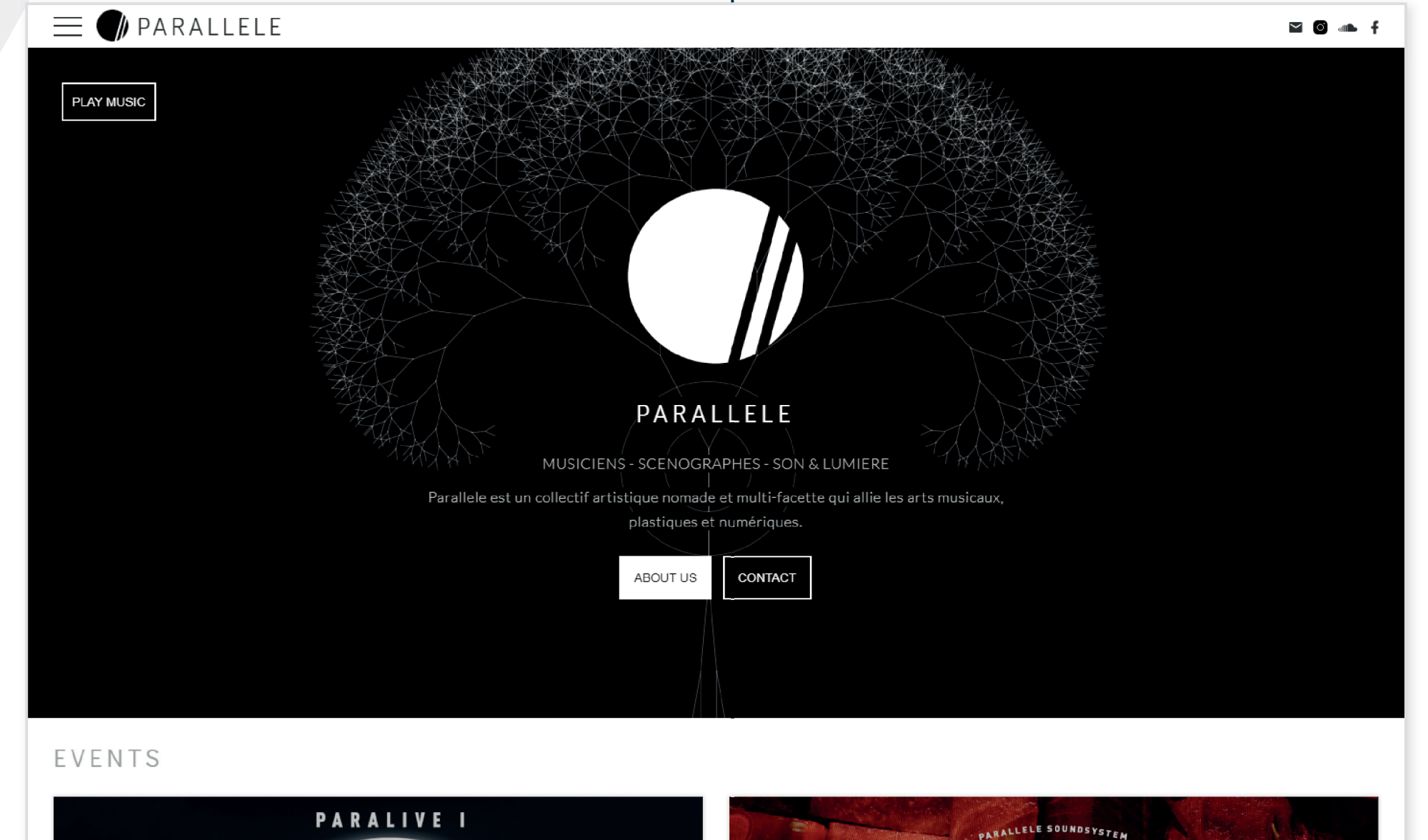
I co-founded Parallele, an association dedicated to organising parties and exhibitions. We also do scenographic installations.

In 2019, I produced the association's communication materials which included a **presentation report** and the **official website**. During the front-development of the site, I realized a **sound-reactive canvas**, thanks to p5.js the **Processing** language intended for web applications.

I also designed our **logo** at the genesis of the association back in 2015.



# PARALLELE



[Homepage: soundreactive canvas]

Visit it on [parallele.family](https://parallele.family)



*more projects on [nicolasmimault.com](https://nicolasmimault.com)...*

LET'S WORK TOGETHER

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