giorgia rossi

design portfolio
2013-2018

My name is Giorgia Rossi and here are some of the works I have developed during my studies in Industrial and Product Design in the past 5 years.

I have been extremely influenced by the Italian and British environment where I lived, but also by every person I met during my journey with which I have personally and professionally grown and I hereby sincerely thank

The works collected belong to different fields: product studies, jewellery, communincation and branding, furniture and lighting design and are divided .

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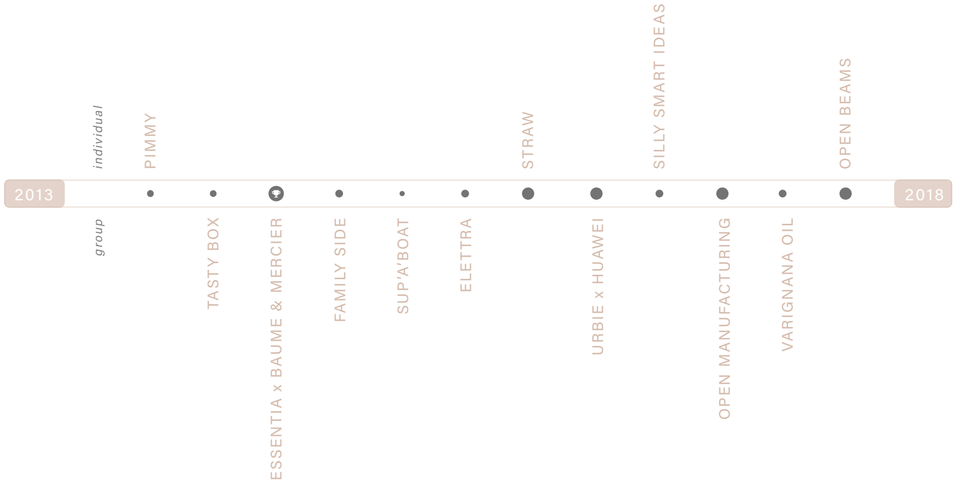

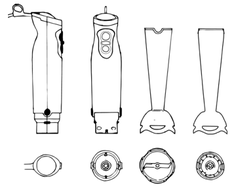

pimmy

Product study
June 2015

Study of a kitchen device, focusing on its components, assembly, materials and use and finally create a 3D model and rendering of it.

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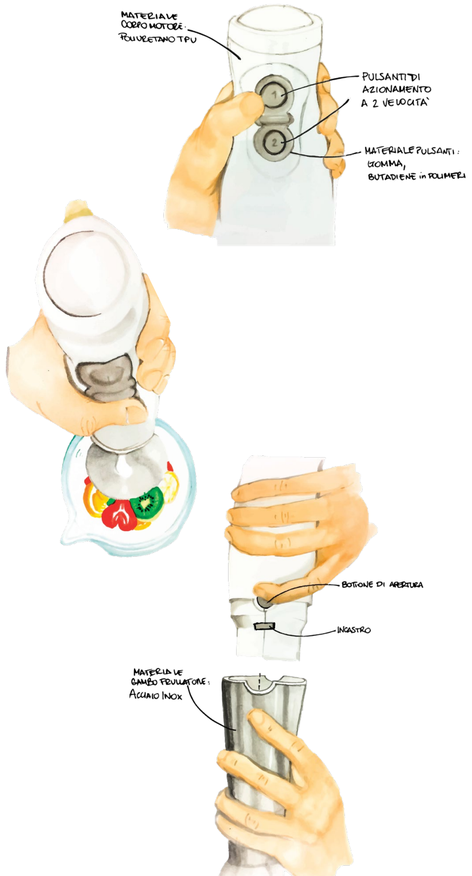
Disassembling; Hand Sketching; 2D-3D Modelling: AutoCad, Alias Autodesk, Alias VR, Photoshop.

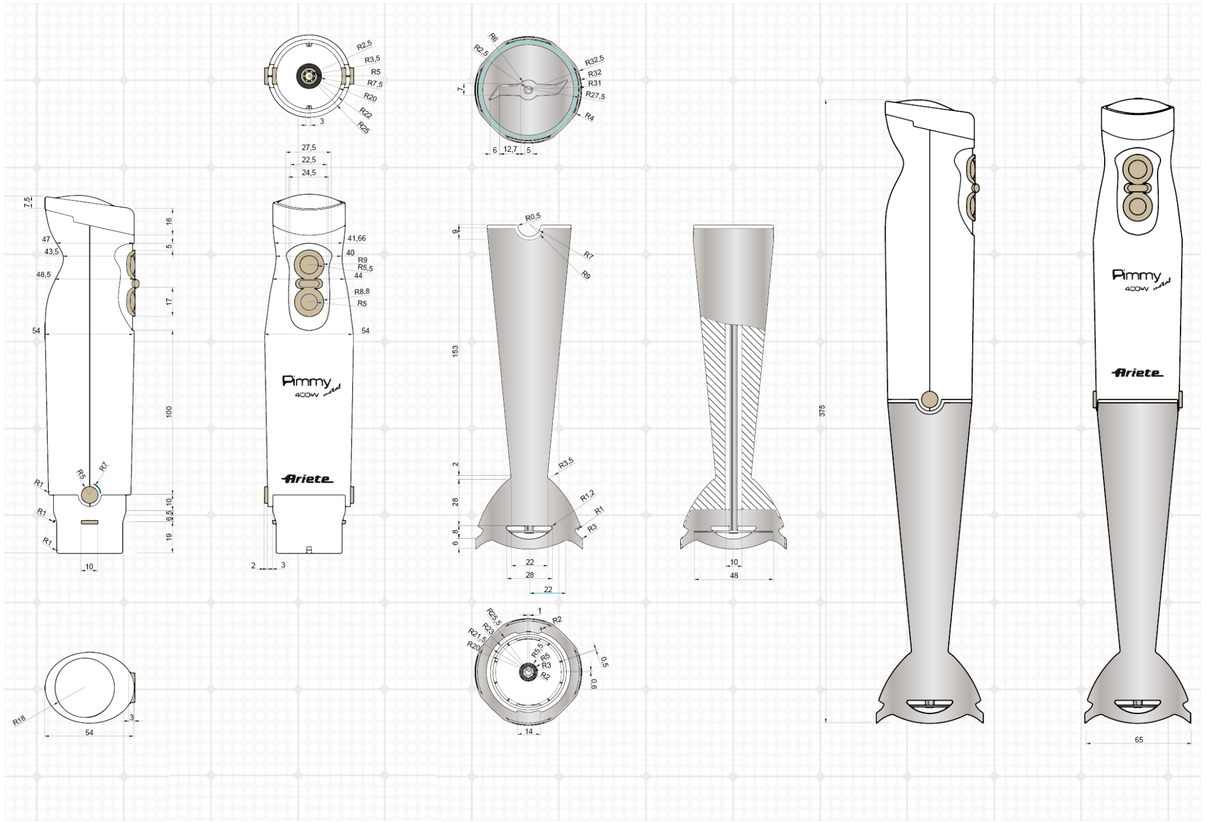
process

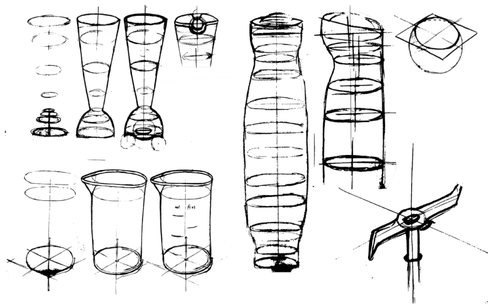
We choose an object we were all familiar with: Ariete Pimmy mixer. First of all, we had to study the object in every single part, disassembling each component and taking the exact measures. After producing handmade technical drawings, we translated them in an **AutoCad** file.

In the meantime, I drew some **sketches** to show the product relationship with the user and the environment. This informed and made the **3D modelling** part easier.

To realize the model, I used **Autodesk Alias Design**, one of the best programs to work with for surfaces and curves.







outcome

We presented Pimmy through 2D/3D realistic visuals, finally collimating in a **photo rendering** combining **Alias VRed** and **Photoshop** as design tools.

This was the most challenging part, because of the refractive materials of the product and the coloured environment.

sup'a'boat

3D modelling for Naval Design
February 2016

Offer a realistic 3D modelled proposal for a Racing Boat, following R3 classed Centreboards restrictions from "Mille e una Vela Cup", a racing competition among Italian universities.

/

Research; Benchmark/ Project Management; Concept; 3d Modelling Creo Parametric; Keyshot; Photoshop; Autodesk Alias Autostudio; Autodesk VRed.

process

In a team of 3 students, we have to firstly understand the racing boats world to have a broader vision on the project possibilities. One of the biggest restriction was to conceive a concept made for at least the 70% of natural materials: to do so, we decided to expand our research also outside the field. We predicted our positioning after defining our strengths and limitations and started sketching first ideas.

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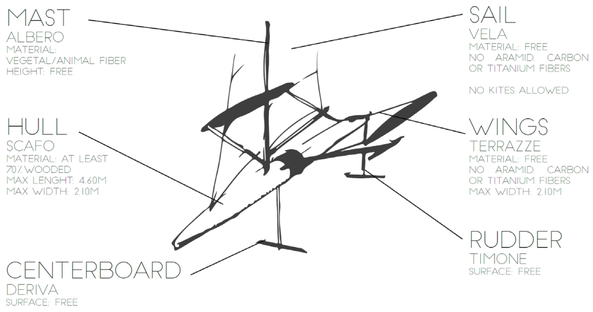
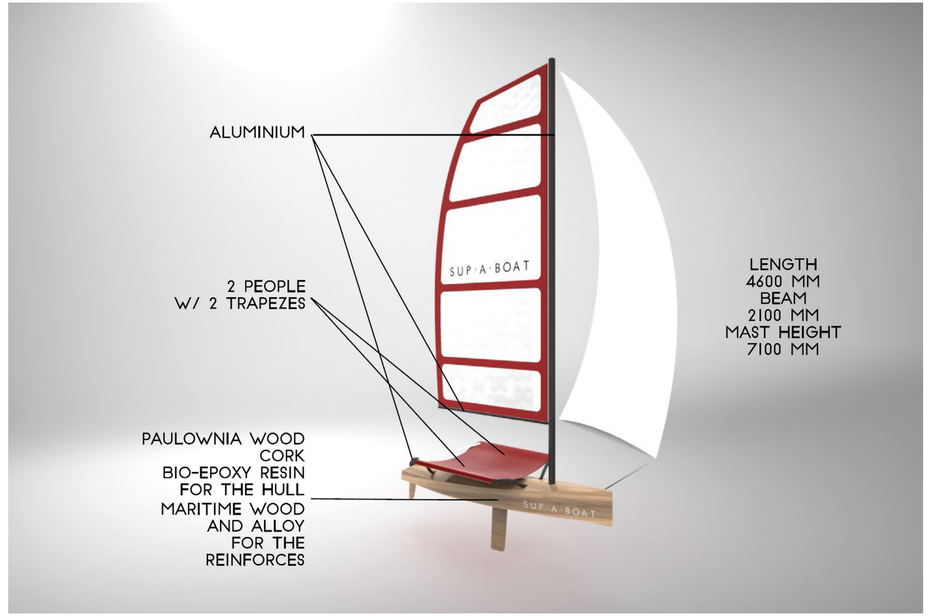
REQUIREMENTS AND CONSTRAINTS

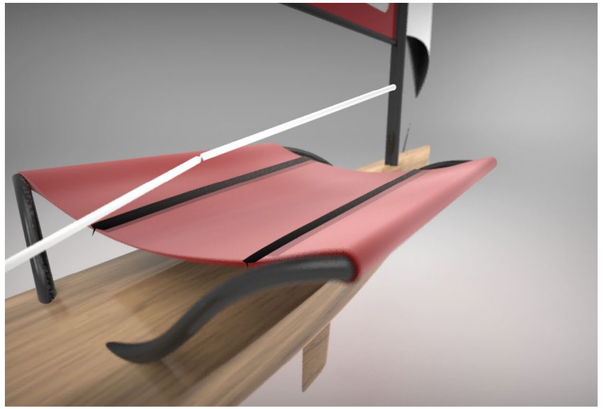


outcome

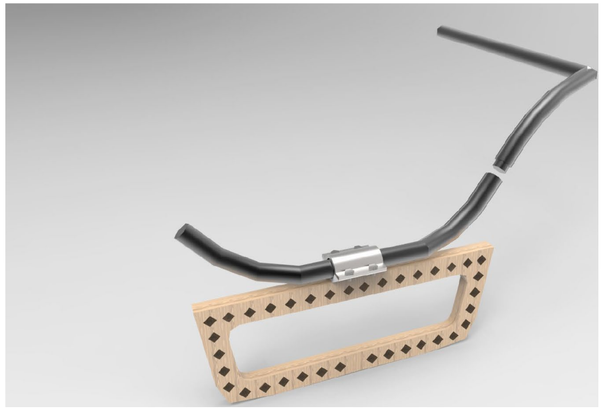
We carefully studied our competitors and finally took inspiration from 3 existing boats: “Earth Sup”, for its hull shape and materials; “Mirabaud”, for its wings; “Tiwal”, for its simple structure.

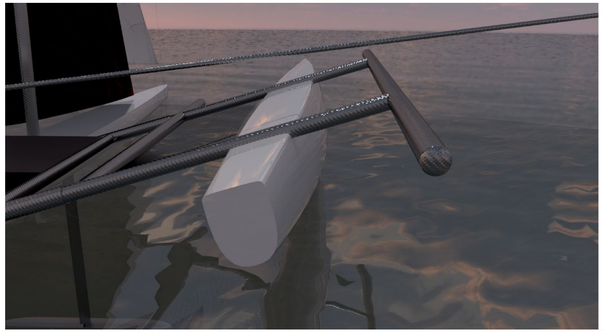
The result was a 15ft skiff (type of centerboard) for 2 people, made of Paulownia Wood, which makes it salty-water resistant, in a cork sandwich (with bio-epoxy resin) for hull core. Reinforces, wings and their attaches, mast and boom are made in aluminium. It is incredibly lightweight, cheap and really performant, although it is a professional boat requiring an expert team to be steered.

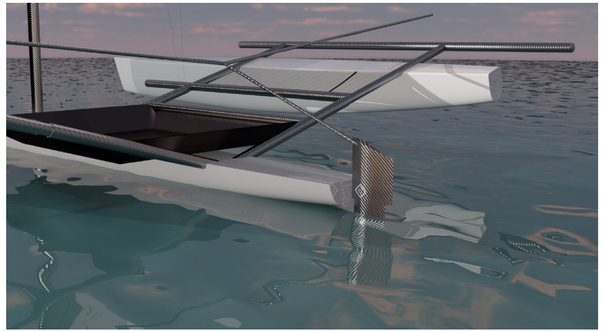


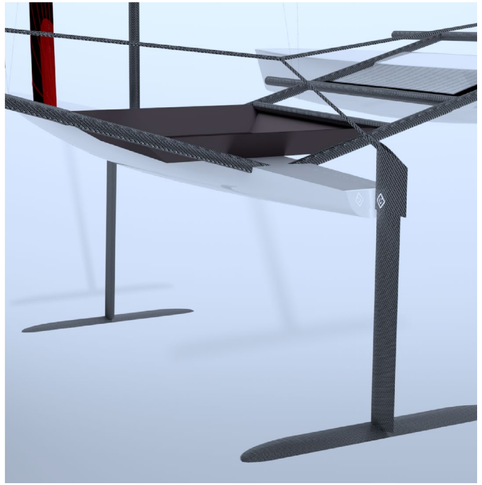


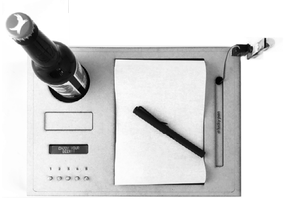
SUP A BOAT











silly smart ideas

Product as Platform Design
April 2017

With the aid of agile methods (design improvisation, dreamscaping, cultural probes etc.) and the implementation of Arduino coding, design a solution for a small everyday problem.

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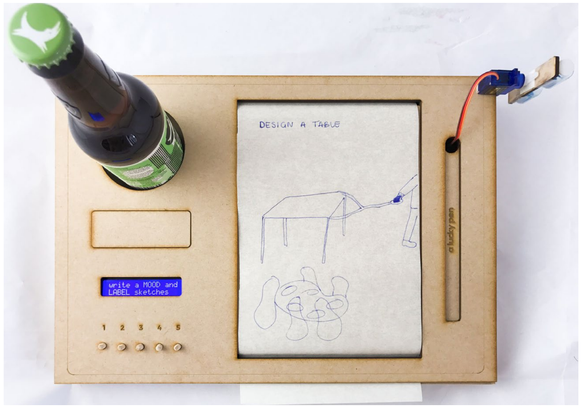
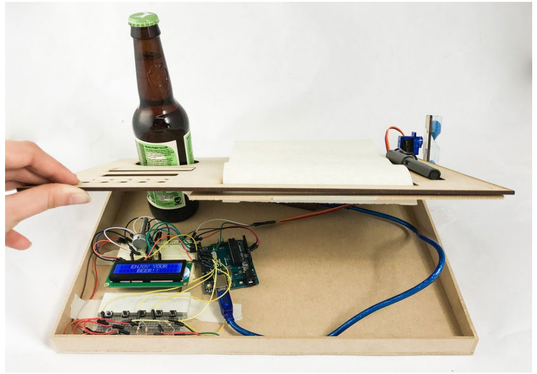
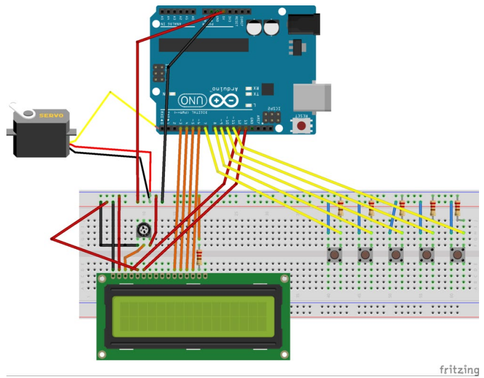
Quick and dirty prototyping; Design Improvisation methods; Live user testing; Physical Computing (Arduino); Laser cut workshop; Illustrator; After Effects; Synthetic Presentation; Using narratives



process

First approach with Dreamscaping and Cultural Probes methods, to help with the choice of the subject.
First definitions of the idea through quick and dirty prototyping
Building a small part of the technology with Arduino coding.
Design improvisation for user experience trials and concept refinement
Polished prototyping and building of an effective and quick 5' presentation





outcome

How many times, starting a new project, have I been stuck and cannot move forward or give birth to any relevant ideas?

This is probably one of the most common issues in the young designer's everyday life. My solution is basically an analog dreamscaping, a braintrainer which gives you a bit of inspiration, a tiny starting point from which you may find the idea of the century. It's kind of a distraction tool which, turning your perspective upside-down, helps you to produce ideas in a very short time.

family side

Service and Product Design
February 2016

Provide a specific service to a selected target of Marconi Airport visitors, from their arrival at the Airport Check-in, to their departure.

/

Brainstorming; Design Improvisation Methods; Cultural Probes; Interviews and Personas; Photography; Adobe Photoshop; Illustrator; After Effects; 3D Modeling Creo Parametrics; Real Prototyping.

process

Our first approach to this service design project started with cultural probes and **design improvisation tools**, in order to stimulate creativity and produce different ideas.

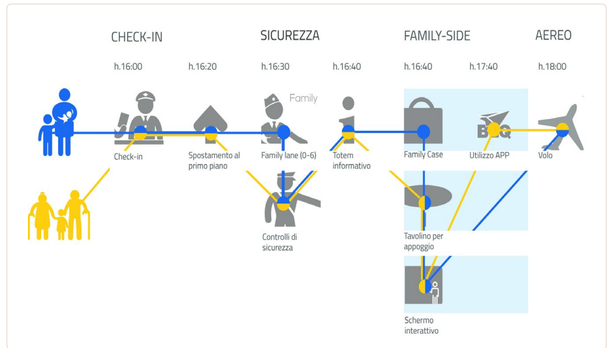
We then met a group of employers already dealing with Bologna's residents and decided to build a **service for families visiting the airport**. Interviews have been a massive part of the project: speaking both with employers and residents gave us insights to understand their needs and define the different touchpoints.

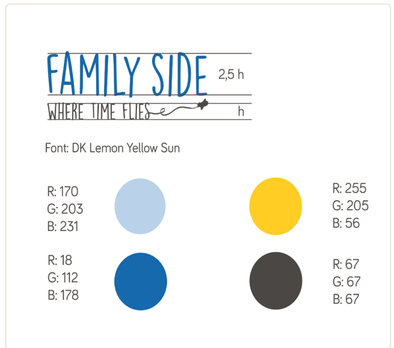
Family Side is the name of the dedicated area and those are the aspects we took care of:

/ Brand Identity and Communication
Advertising, signage and flyers, inside and outside the airport

/ Product Design
Enhance airport existing furniture to make it more comfortable for the selected users

/ Entertainment Service
Interactive Screens and Mobile Application; "Family Case" and "Baby keeper".





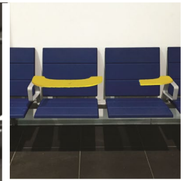
In this team project, we had continuous sessions of **brainstorming**. All of us contributed to the collection of insights and creation of personas after the interviews. Afterwards, each of us worked on a specific touchpoint: I have personally curated the communication part (including flyers mock-ups and environment renderings, created a final animation to explain the entire service and the interactive screen and mobile application.

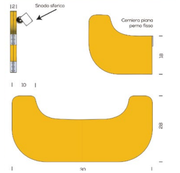
outcome

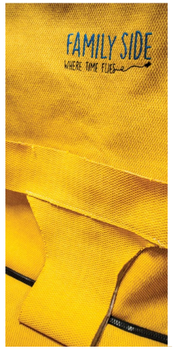
Product Design

Folding Tables
Operating by means of a spherical joint, they can be attached to the armrests. Offering two possible configurations, they serve as support for adults and dining table or playtime desk for children.

Family Case
With *Family Case*, it is possible to dress up airport seats to satisfy kids needs and entertainment. Available at every *Family Side Point*, *Family Case* appears like a tiny yellow purse: blank sheets and pens are bound to the external side, while on the inside, a folded envelope transforms the airport chairs, coating seats and backrests and creating a *Baby-Keeper*.







Graphic and Service Design

Brand Identity and Communication
Flyers are available in the Airport info points and hot-spots, introducing families to the service. From the info points and other strategically located advertising, small airplanes stickers draw a long yellow line that guides families to the Family Side zone. Just like a flying plane, the signage climbs the walls of the interactive screens.

Interactive Screens and App
Children of all ages can play with the interactive screen and take photos with their parents, who can find and share them through the integrated function in Bologna Airport mobile app.

urbie x huawei

Service and Product Design
February 2017

Design and prototype a new accessory for a smartphone to communicate its creative positioning.

/

App Mockup/UX Interface: Adobe Experience Design; Storyboarding; Video Making; Adobe Premiere; 3D Modelling; Rhino 3D; Keyshot.

urbie

This group project mixed two UAL MA Courses, Industrial Design and Jewellery and people coming from 3 different countries: Italy, China, Cyprus. It mainly consisted in:

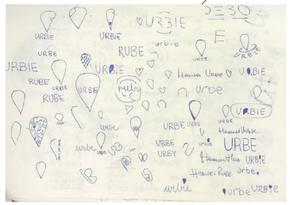
Background research and technological review in brainstorming sessions
Choose of design direction and start of **personas and market research**
Reiterative sketching, quick prototyping and 3d modelling of the selected concept until its best refinement
Communication of the final concept in 5 min through a verbal presentation and a **video**.

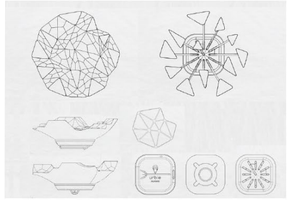
process

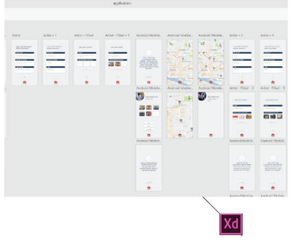
This project, briefed by the Chinese company Huawei, is about the interrelationships between the body, mobile technology and how consumption affords social capital.

Smartphones are becoming ubiquitous in developed markets. They enable people to act, interact and manage their lives in ways that were unimaginable even a decade ago. But beyond their utilitarian benefits, smartphones have emerged as a key semiotic device: a communicator of our personal tastes, values, and social status.

Arguably, the smartphone can be seen as an extension of minds, a surrogate, our most intimate companion and ultimately a simulacrum- an idealised representation of the self.







outcome

Once defined the project **touch-points**, we started to design an entire experience around a product: **Urbie**.

Urbie is not just a smart accessory: it is crafted, technological and transformable at the same time. Urbie is a lifestyle, an engaging urban game which reflects your activity in the city. Urbie is for the artistic minded new cosmopolitan and it's building up a community entirely devoted to culture.

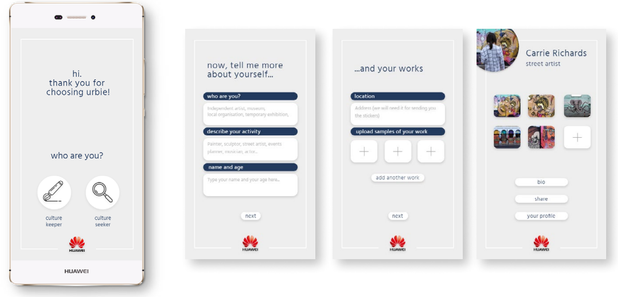
UrbieBadge is a tool for **culture seekers** and, combined with **UrbieApp**, provides to the Huawei user a unique experience.

UrbieApp

With this smartphone application, artists can share their work. Huawei provides them with a sticker that identifies them as part of the growing community.

That is also how the culture seeker is going to find them: through the app he finds new spots all over the world and the more he explores the city, the more he is rewarded.

In fact, as soon as he gets close to an UrbieSpot, he can check-in with his UrbieBadge, collects points and unlocks amazing prizes.



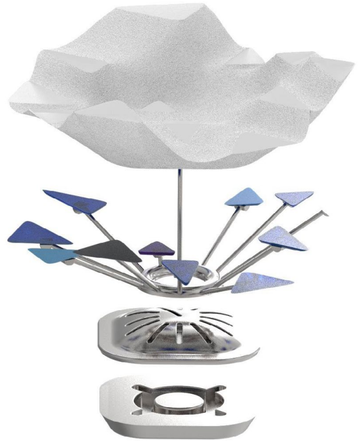
adobe XD mockup

UrbieBadge

It consists in two main parts, the core and the brooch: the core controls all the digital functions, while the brooch shows the reflection of your cultural activity in the city.

The **core** is the key which gives life to Urbie. It is essential for the check-in and Bluetooth paired with the Huawei phone. The connection to the body happens with the metallic pin in the back of it and everything is mechanically jointed with the brooch.

The **brooch** grows as you collect points whenever you check-in in the locations. It consists of a metallic rod construction, over which a flexible textile outer skin has been stretched. The material reacts directly to the forces acting on it, enabling new shapes to come.



the expanding brooch

modular nature

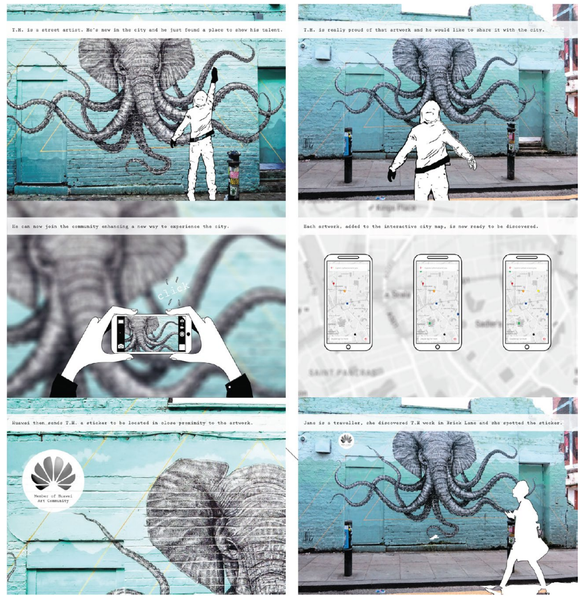
Its design is interchangeable: according to the seasons, the user can both win or purchase a new version of the badge. The first design has been committed by Huawei to CSM, while the seasons after are going to show collaborations with widely known artists and designers.

Service communication

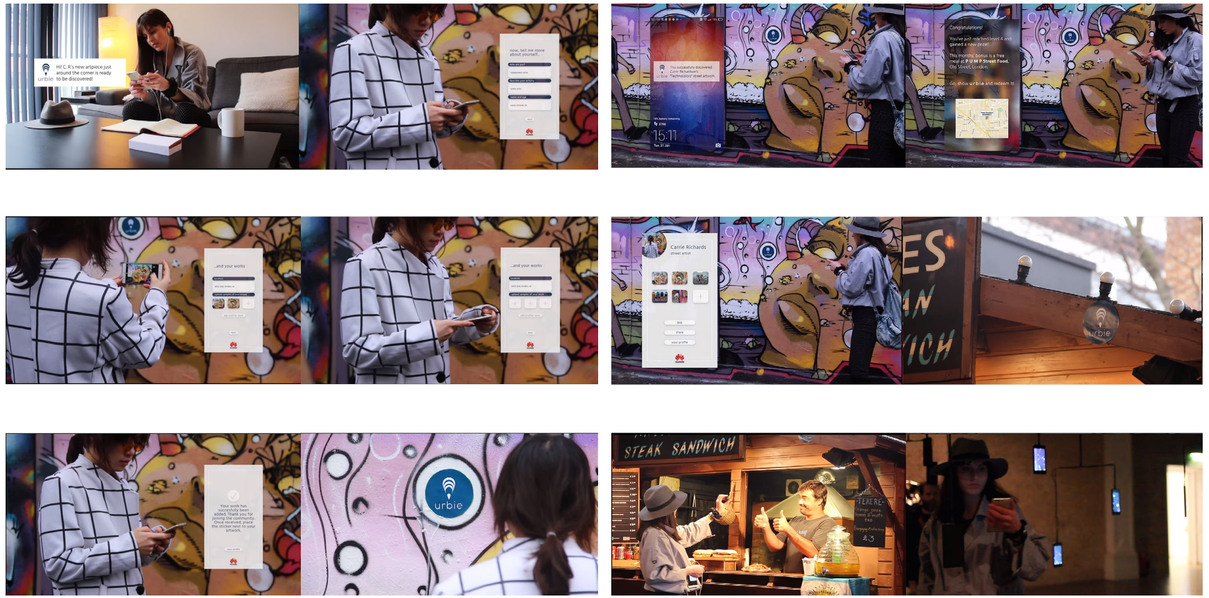
For the final presentation, we had to produce a short video explaining the service. After sketching a rough storyboard, we went outside to film it.

It was interesting to explain our work to strangers and see if they could understand the project just after a short introductive explanation.

For the full video:
youtu.be/urbie



adobe photoshop storyboard



video scenes

size matter

Furniture and Service Design
July 2017 - ongoing

This project is part of an initiative led by Camden Council to lessen the impact of overcrowding for local residents by community engagement and making adaptable furniture together.

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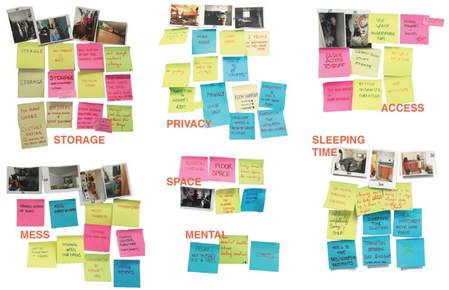
Open Manufacturing Process; Plywood employment; Laser-cut Prototyping; CNC machine; Rhino 3D; Film making and post production; Business Planning: time managing, resources allocation, stakeholders research



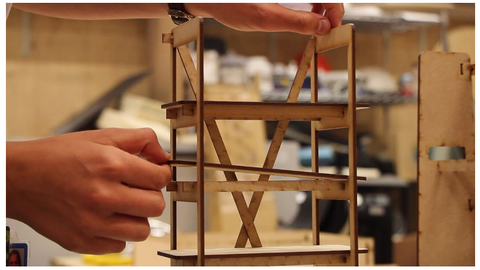
We collaborated with Camden Council, Public Collaboration Lab (PCL) and local authority housing residents to alleviate overcrowding with affordable and adaptable furniture.

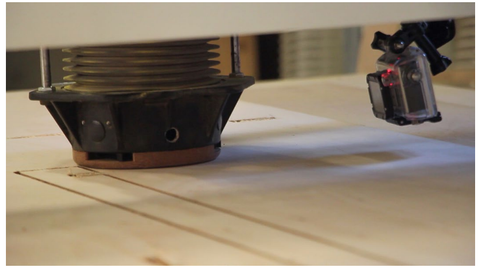
In the borough of Camden, a high proportion of local authority residents live in overcrowded housing. Families outgrow their space but make-do. There is less space to think, less space to be together and less space to be alone; what begins as a practical problem can have social, psychological and health ramifications.

process

At the core of our work is co-design, an approach that welcomes stakeholders and end-users into the design process.

We visited families in their homes having conversations about challenges overcrowding present. We created an activity booklet, a tool to structure conversations, to identify problems and seek to solve them. We devised a system to deliver entirely bespoke, adaptable, yet affordable, furniture that could be CNC-cut and slotted together without the use of tools; a digital service that allows users to define their exact requirements.





outcome

Residents received their new pieces of furniture, manufactured in the workshops at CSM but we are now opening the service to a broader community.

We designed a digital platform that empowers users to create bespoke furniture: connected to a local digital making space, more families can join this programme and benefit from it.

It is called *SizeMatter* and offers coded furniture models that can be configured to fit anywhere in domestic environments, involving each customer into the design process.

We assure minimum costs and energy consumption and high adaptability and durability of the products. We support the creation of new communities of makers, citizens and small businesses in Camden Council.

tasty box

Project Management
June 2015

Conceive a new lunchbox concept with the aid of different project management tools.

/

WBS, GANTT, Stakeholders Map, Benchmark Matrix, QFD House; Microsoft Project; Hand drawings; AutoCad; Illustrator; 3D Creo Parametric; Keyshot.

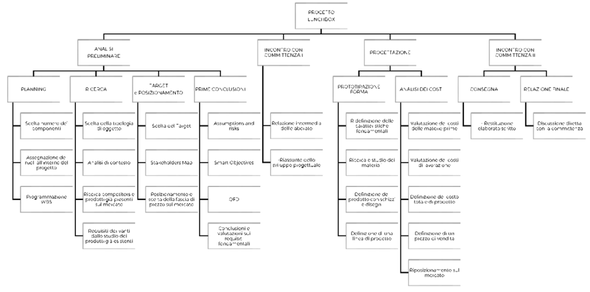
process

We first built up our team and decided the roles for each of us. Planning is indispensable for an effective design process: **WBS** and **GANTT scheduling** are useful tools for checking activities progresses. Of course we had to take into consideration the project **stakeholders**, our target and benchmark, building useful matrix and tables.

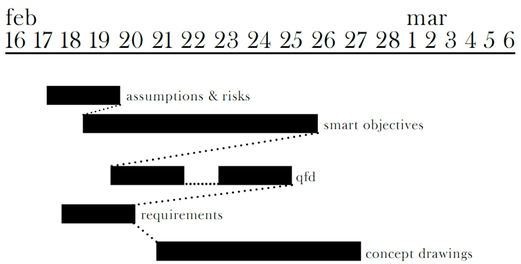
The most difficult part was to study the **quality function deployment (QFD house)** which recaps all the assumptions, risks, requirements and smart objectives we defined for our product.

But all of these activities informed our final concept: "Tastybox".
When we decided our roles, I assumed the one of project manager. It was my competence to divide tasks and build Gantt and WBS scheduling to allocate resources in the timeline.
I have also produced **renderings** and the project's final presentation.

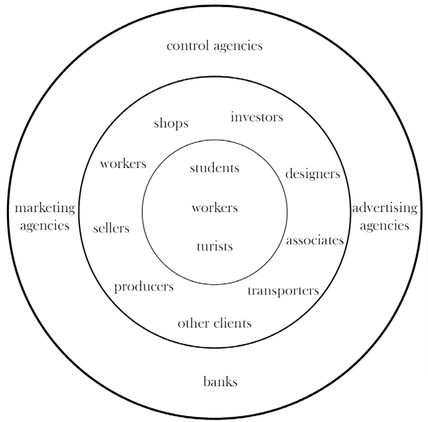
WBS

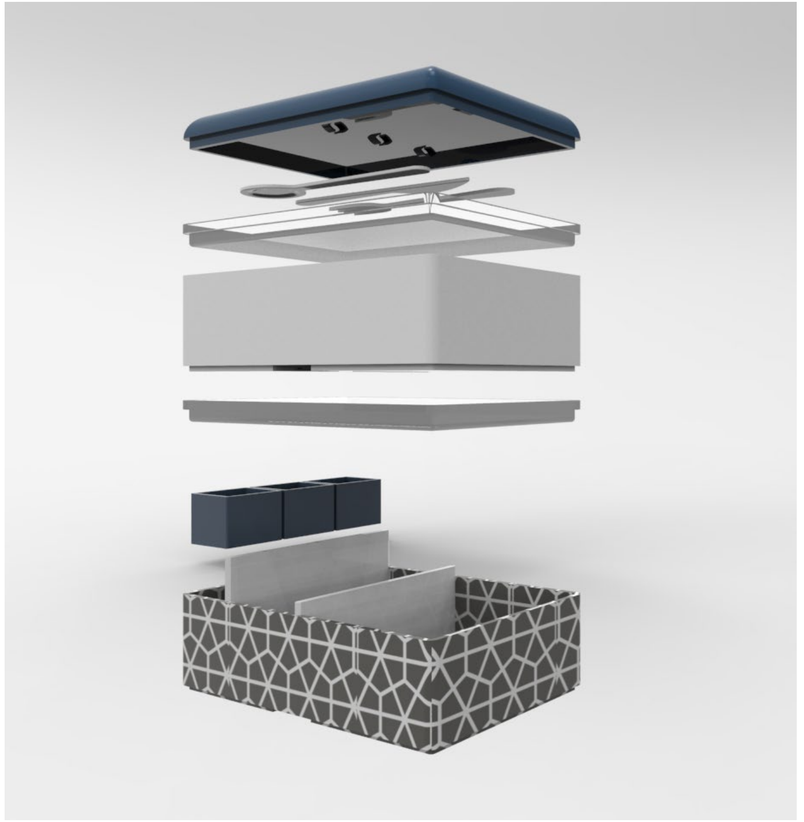


GANTT SCHEDULING



STAKEHOLDERS MAP





outcome

Tastybox is a good compromise to make lunch moment special even outside the domestic environment. This lunchbox allows you to easily bring a complete meal in a slim space. It is transportable, modular, ergonomic, microwavable and efficiently seals food inside. It fits in your backpack without any possibility to leak!

The different components of the kit can be separately purchased: mix and matching colours and textures make it as personal as possible.

essentia

Jewellery / Winner Project
June 2015

*Design two concepts of wristwatches for the great Maison Horlogière **Baume & Mercier**. This project included mixed Industrial and Fashion Design student, to produce a piece of jewellery reflecting innovation and aesthetic.*

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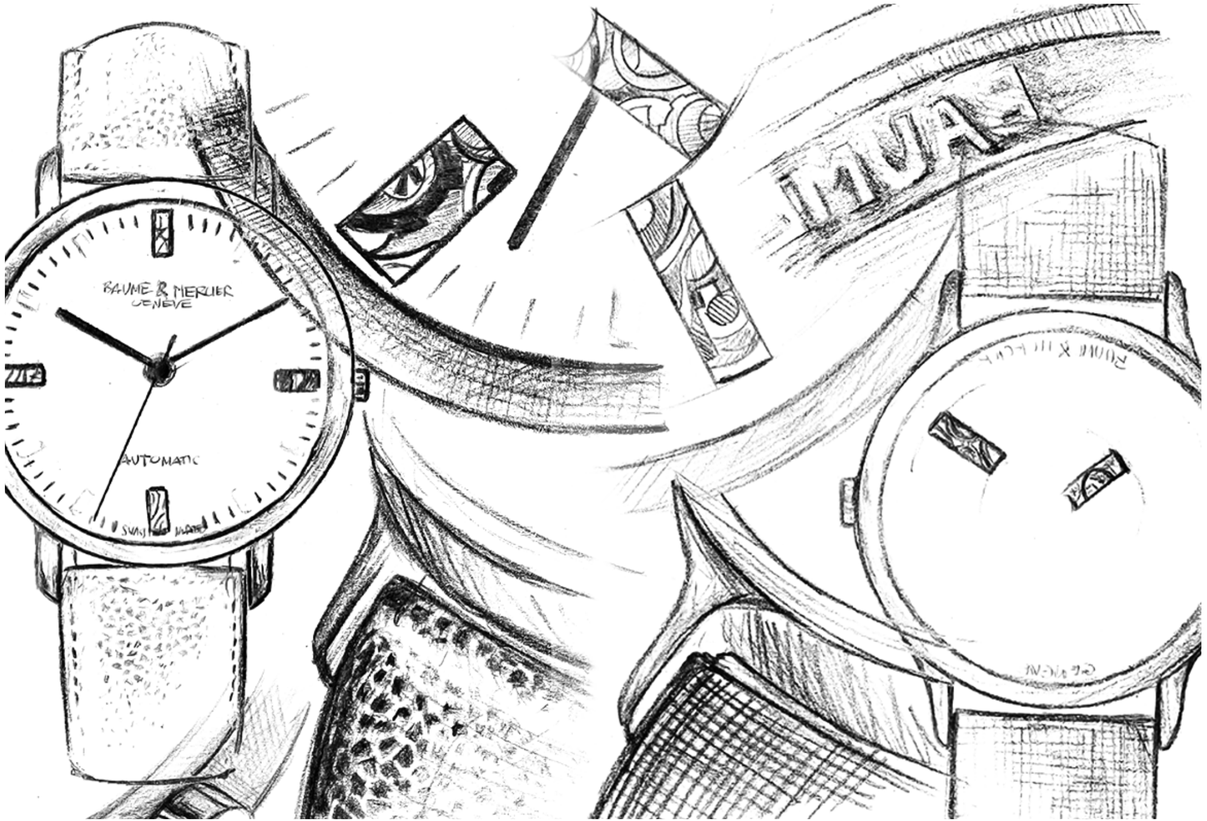
Brainstorming; Hand Drawings; AutoCad; Autodesk Alias; Photoshop; Illustrator; InDesign.



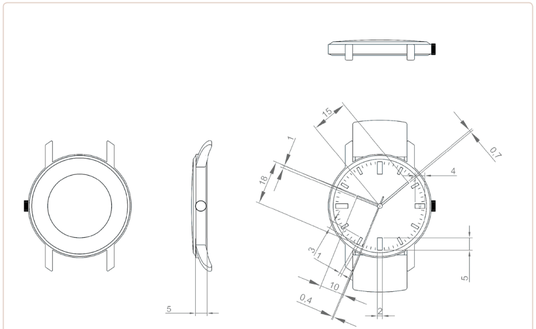
process

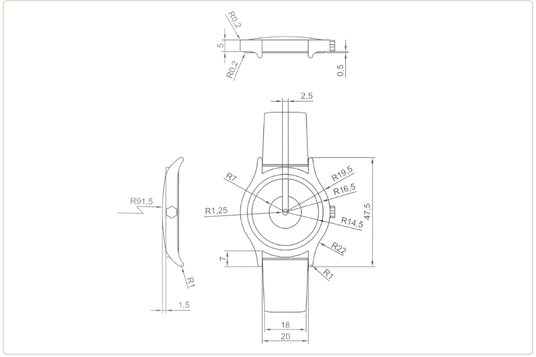
We had to deal for the first time with the theme of luxury. We thought of luxury as an experience and a lifestyle. We decided to approach to this culture designing for people who choose the best without showing it off, nurturing substance over the appearance. Moreover, in a world where mass-production rules, only craftmanship gives to an object an unique disposition. Hence, arts, simplicity, elegance and sensitivity are our keywords.

We wanted to offer a formal minimalism accompanied by an excessive attention to details, materials and crafts.

Working in a randomly assembled team of five, I have contributed to de-briefing sessions, sketching in the concept definition phase, curating the follow-up presentations and producing final photo renderings.

From manual sketches we transferred our concepts into 3D models and 2D Cad files as ready for production.





essentia 10543

essentia 10542

outcome

The first watch is in step with the Maison's historical tradition, since it is inspired by a previous model of B&M collection. Under a sapphire glass, the main time markers has been cut out to show the gears in all their beauty and precision.

For the second one, cut outs in the needles make every single minute precious and unique, showing little by little a new shade of its inner essence. From there, the name "Essentia" originates.

The project has won the first prize in the design contest Luxury Wrist Watch by Baume & Mercier.

elettra

Product Design
June 2016

Rethink and create objects representing the identity and complexity of Bologna's University studies developed and generated in the various Colleges. Through the declination for each discipline, we had to connect different knowledge, history, traditions and values and transmit them to a contemporary and international audience.

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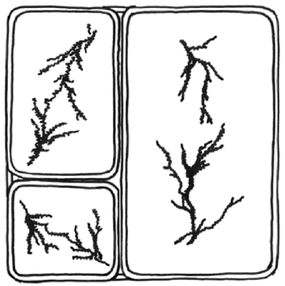
Merchandising Research; State of Art; CNC Production; Experimentation



process

We went to Palazzo Poggi to have a better understanding on what people remember after their visit.
We found Luigi Galvani works as inspiring and yet unusual to transfer on a design product.

From first sketches to 3D model the process was quite straightforward, but the final prototype was the hardest part: after several trials and burnt wood, wec cut the trays with CNC machines and finally apply electro-erosions to them.

outcome

The result is Elettra, a series of modular trays treated on the surface with electro-erosion, inspired by Luigi Galvani studies.

Features: unique pieces, wood worked with numerical control (CNC).
The decorations are obtained by electro-erosion: the burning process is random and partially dependent on the wood nature.

varignana oil

Packaging Design
March 2018

Propose a concept for a luxury olive oil bottle for Varignana SPA. Focus on the landmarks and give an original solution.

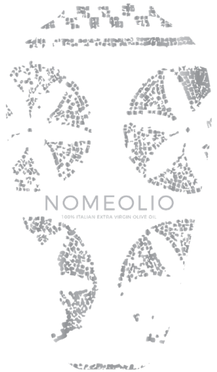
/

3D Shapes modeling; Benchmark; 3D Prorotyping; Autodesk Fusion 360; Adobe Photoshop.

PALAZZO DI VARIGNANA
HERITAGE OF ITALIAN LIFESTYLE
1705

process

This is one of my first commercial project, which is still ongoing at the moment in prototypation phase. Started with an accurate research of the client's history and background, this project was briefed as a totally different product from their existing range: a luxury limited edition of olive oil bottle made in Italy.



offering different
possibilities to the
client

outcome

I took inspiration from their branding and historical graphics, like Claterna's mosaic, for the label while the bottle shapes recall the Roman amphora.

Every external coluring is possible as the internal glass is coated with an atoxic black tint.

Compact but capient, the double gass makes it resistant to any kind of international or national transport.

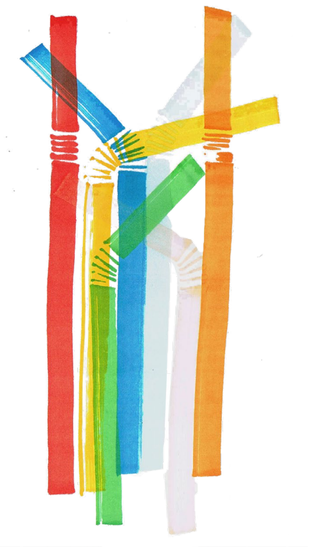
straw

Lighting Design
June 2016

Design of a table lighting system for libraries: study, concept development and prototyping of an indoor lamp fixture which can both define a personal space or a sharing environment among multiple users.

/

Project Management; Benchmark Research; Hand Sketching; 2D and 3D Modelling: AutoCad, Autodesk Alias Autostudio, Alias VRed, Keyshot, Photoshop, Illustrator; Physical Modelling; Photography; Product Assessment.



process

I have been working on this project for a couple of months, following my mentors **Mario Nanni** (Viabizzuno) and **Lorenzo Antonioni** (Bulbo Lighting). Starting from a research around world libraries and after visiting different libraries in my city, I have observed interactions, main issues and basic requirements of existing lighting products.

I then focused on studies around **proxemics**: I was captured by the student difficulty on recreating an intimate space in a public environment.

Light as a material object is a basic requirement in public domains, because it can organize and define spaces, determining and influencing visitors behaviours.

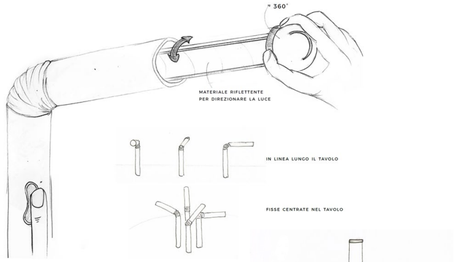
These were the main aspects I started to work with:

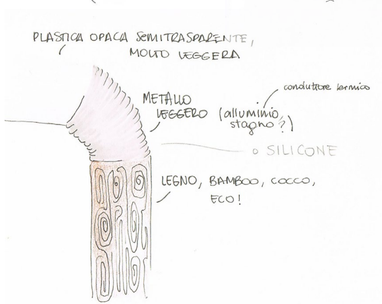
/ Light
quality and intensity of the produced light (refraction, improper contrasts, shadows and flicker)
combination of artificial and natural lighting
manteinance

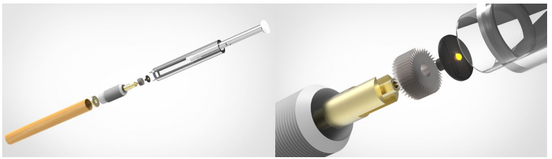
/ Space
architectural integration
intimacy and sharing
distance between users

Finally, I found an everyday object showing most of the characteristics needed in my concept: the **straw**. A straw is light, flexible and movable; is an example of a sharing context and can be used with one single hand.

From sketches, I modelled the first 3D concept of Straw.





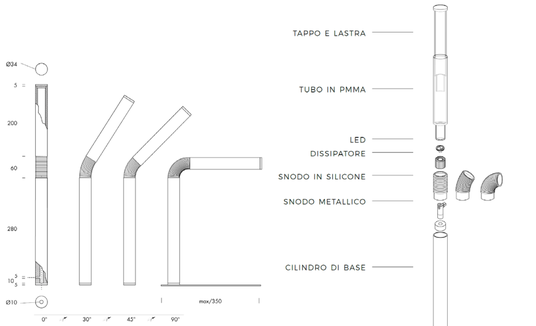


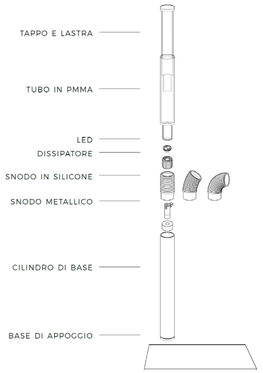
outcome

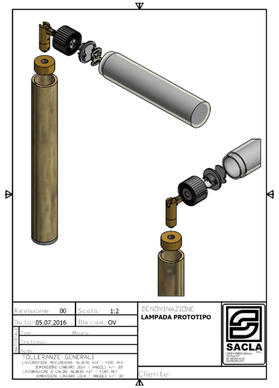
Straw is a table lamp characterized by a silicon junction which allows **flexibility, freedom and mobility**. The light is versatile, providing both **diffused** and **spot light**.

Moreover, the product is conceived to be assembled in a group of 4 elements, **physically dividing the space** but still allowing each user to set the light to his preferences. **Discrete materials**, inspired by Nordic libraries, are eventually coherent with main of the modern library architectures.

Thanks to the support of my mentors and of the Italian company Sacla srl, which promptly provided me with materials samples and useful advices, I have managed to realise a working **prototype**.







Comunication

Finally, I wanted to curate an important aspect in the commercialization of a design piece: communication. I gave it a brand identity, naming and designing its logo. I have realized an efficient packaging and thought about a possible range for the product, including transportable and floor variants. I have also decided to give a prediction around production and retail prices, in order to verify the product feasibility.

straw

Nexa Light
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
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open beams

Lighting Design
March 2018

A laser-induced lighting system for the domestic environment operating at incredibly low energy level.

/

Lighting Design; Laser Lighting; Metal Workshop; 3D Printing; Adobe Premiere; Autodesk Fusion 360

premise

LEDs have been challenged by the same person who, in 1992 invented the first blue LED for efficient white light, Shuji Nakamura.

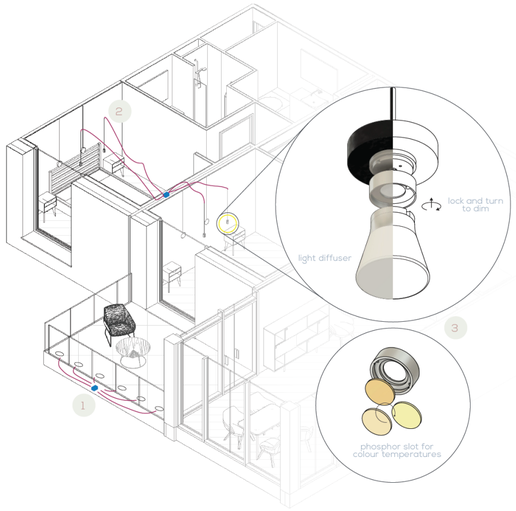
In fact, the same process which gave him a Nobel Prize in Physics, has been tried with blue laser diodes in display, biomedical, security and automotive fields.

There are enough assets to consider new possible applications and this is why Open Beams is born, as a blue laser-induced lighting system for the domestic environment, resulted from a cross-pollination of worldwide lasers, phosphor and light diffusers manufacturers.

This system belongs to the scheme of sustainability solutions designers are now addressing because of its energy consumption.

Electrical cables disappear along with the plan of their locations. Moreover, optical fibers can considerably reduce cabling infrastructures costs, because they are easier and cheaper to install. Their lifespan is infinite and the light source can be positioned in any convenient place for easy maintenance.

No bulb, less problems: the only care required is the laser occasionally replacement (10-30 kh lifespan). A single switch controls the entire room lighting. It could also be implemented in a smart lighting application.



outcome

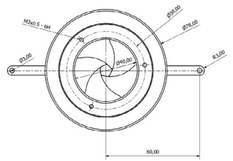
Open Beams is a laser-induced lighting system where multiple lamps consume as much as a single one, offering new interactive ways to play with light, from the installation to the daily use.
A single blue 450nm laser beam is split into an optical fibre harness and reaches multiple fixtures where it is converted into white light through the phosphor diffuser.

The implemented design product, operating in a domestic environment, is composed by:

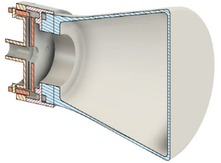
/ The laser source box
Kept behind the walls or in the countertops, it dissipates the heat far from any possible human contact, but with easy access for maintenance, helping to reduce cabling infrastructures costs.

/ The optical fibre bundle
Transporting light everywhere in the room, its brightness depends on each fibre thickness and length, with total maximum output comparable with a single LED device.

/ The converting adapter or end fitting
Since optical fibres do not carry electricity, a mechanical dimmer is then required. It consists in an aluminium iris mechanisms manually operated rotating the light diffuser. Interchangeable phosphor discs, creating safe white light of different colour temperatures, are kept in a second slot. At the end, finely crafted light diffusers of various shapes: they can be switched with every other one in the house according to personal taste. All the pieces are smoothly held together by small strong magnets.



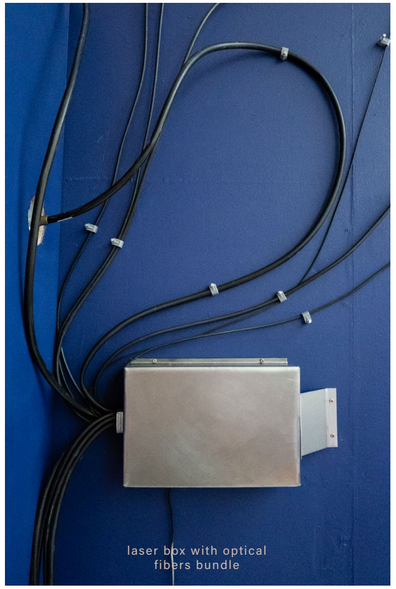
iris calculation



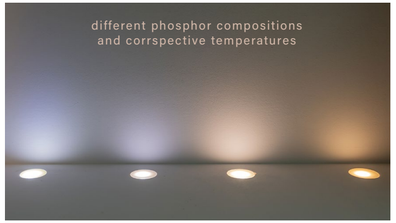
3D modeling

light fitting 3D printed prototype

For the video of the mechanism:
youtube.com/openbeams

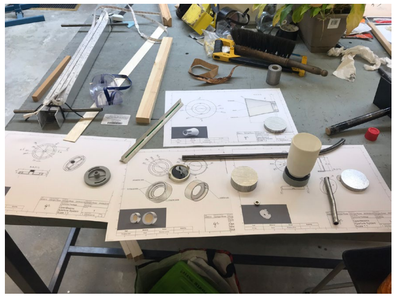


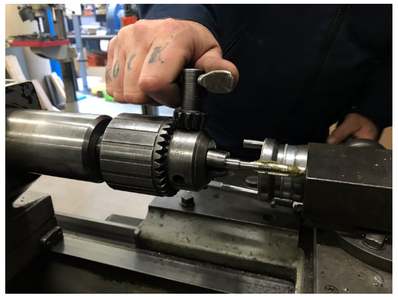
laser box with optical
fibers bundle



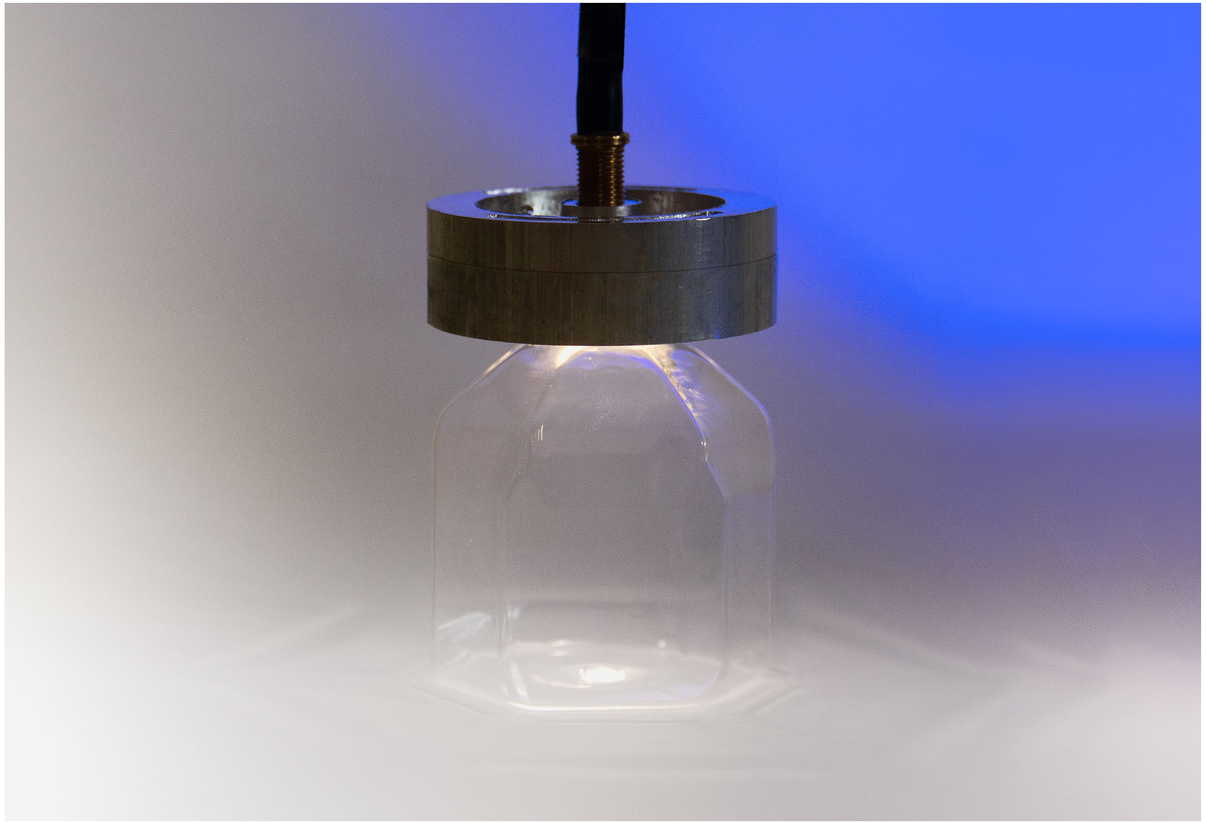
different phosphor compositions
and corrspective temperatures

dimmable light fitting





from 3D printed to
metal prototype



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