



PERFORMATIVE NATURE

Barcelona International Landscape Architecture Biennial

September 2018 **Barcelona**

SCHOOL PRIZE

X International Landscape Architecture Biennial

Máster d'Arquitectura del Paisatge -DUOT - UPC

ETSAB- Escola Tècnica Superior

d'Arquitectura de Barcelona

Avenida Diagonal, 649 piso 5

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TECHNICAL DOSSIER

Title of the project ORIGAMI Landscape.....
Authors Luocalti Arianna, Casagrande Margherita, Calari Simone, Bonafini Aurora.....
Title of the course Urban planning with workshop.....
Academic year 2017/2018.....
Teaching Staff Arch. Giuseppe Pino Scaglione, Arch. Paolo Picchi.....
Department/Section/Program of belonging Department of Civil, Environmental and Mechanical Engineering.....
Course of Architectural Engineering.....
University/School University of Trento.....

Written statement, short description of the project in English, no more than 250 words

Our study area is set in Trento city center: Piazza delle Erbe, Piazza Vittoria and their immediate surroundings. Firstly, an analysis of flows and users during the day has been conducted, through direct interviews on-site. What emerged is that the area is populated only in the morning, mostly by over 60 people, because of the presence of market and postal service; for the rest the area is a transit zone. Moreover, we have realized an online survey to confirm some critical points. The presence of market, together with parking, various street furniture and waste, causes a general visual disorder. However, the main problem is the lack of meeting places. Thus, our project aims to attract users and to tidy different functions through a crumpled up ribbon. This works, for example, as stands for market, open-air theater or skatepark. This device ends up in a vegetated area located in Via Calepina, that leads to the cathedral. Since our intention was to improve axial perception to this landmark, it assumes the shape of a linear garden. However, its principal aim is didactic: born as social experiment, this place stands firmly against the common "man-made" idea of green area, but through workshops it wants to teach the community that native and poor species also have dignity and value, (Clement G., Manifesto del terzo paesaggio, Quodlibet, 2016). Moreover, the garden can be interpreted as a "time landscape" (Sonnfeldt) and it works like a rain garden, improving permeability and collecting water useful for other vegetated areas.

For further information

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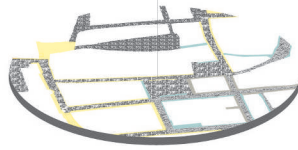
Contact via email at: biennial.paisatge@upc.edu

Consult the web page <http://landscape.coac.net/>

SOLIDS AND VOIDS



MAPPING PAVEMENTS

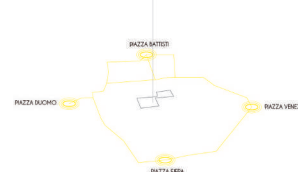


- CUBES PORPHYRY
- SLABS PORPHYRY
- ASPHALT
- SIDEWALK RED STONE OF TRENTO
- SIDEWALK PORPHYRY

BUS PATHS AND STOPS



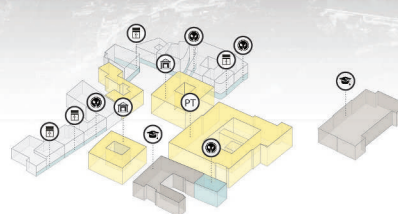
PEDESTRIANS FLOWS



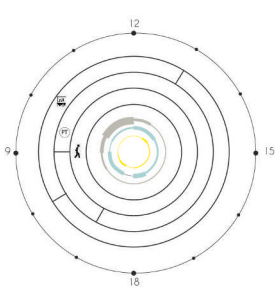
DISTANCES ANALYSIS

OUR STUDY AREA (PIAZZA VITTORIA-PIAZZA DELLE ERBE AND THEIR CLOSE VICINITIES) IS LOCATED IN THE HISTORICAL CITY CENTER OF TRENTO. IT HAS BEEN OUTLINED AN ANALYSIS OF DISTANCE FROM THE MOST IMPORTANT PLACES, ON FOOT, BY PUBLIC AND PRIVATE TRANSPORTS.

FUNCTIONS ANALYSIS



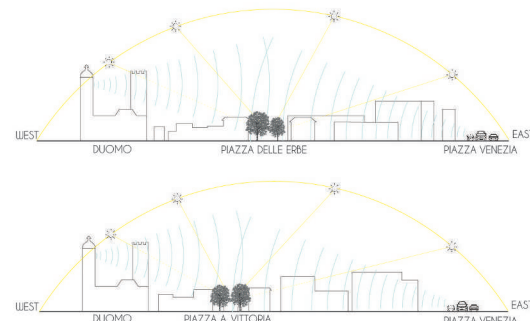
ACTIVITIES AND USERS DURING THE DAY



USERS > 60
USERS > 35
USERS < 35

MARKET
POSTAL SERVICE
PASSAGE

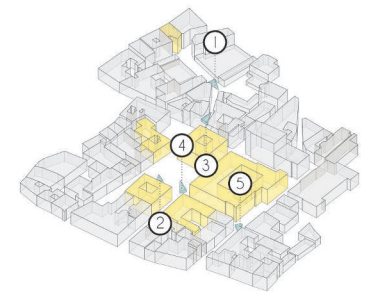
PERCEPTIVE SECTIONS



Sunbeams struggle to reach directly the two plazas, because of adjacent buildings' heights. Moreover, at the plazas corners there are some tall trees that filter sunlight. Buildings also act as shielding elements for the two plazas, since they are acoustically isolated from traffic noise coming from Piazza Venezia.

NOISE
IRRADIATION

HISTORICAL ANALYSIS



1 From an historical and photographic research, it has emerged that our study area was characterized by the passage of **Roggia Grande**, a brook that the centre of Trento. Nowadays, this presence has been replaced by some parking lots.



2. In the past **banca d'Italia's** facade was clearly visible and free from encumbrances, such as market stands, parking lots and trees. The general impression was much more tidy than nowadays.



3. **Piazza delle Erbe**, in her quadrangular shape, displays in her center the fountain "del Bo Castrol". In the past this area was surrounded by covered walkways. As in the previous comparison, nowadays this plaza appears much more untidy and uncivilized than the past. This is because of bins, garbage, vehicles and patchy street furniture.



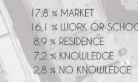
4. **Palazzo Sordagna**, now location for Museo Tridentino di Scienze Naturali, represents one of the masterpieces of Mannerism and First Baroque.



5. **Palazzo delle Poste** is an historical complex with futuristic and nationalist traits. It was erected between 1929 and 1934 by the architect Angiolo Mazzoni. Nowadays, it is interested by a process of decline and it is partly abandoned.

Country / City Italy / Trento
University / School University of Trento / Architectural Engineering
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USERS SURVEY



MAPPING CRITICAL POINTS

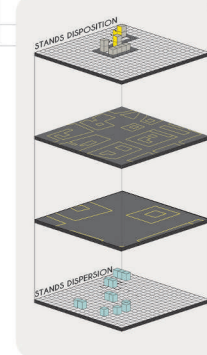
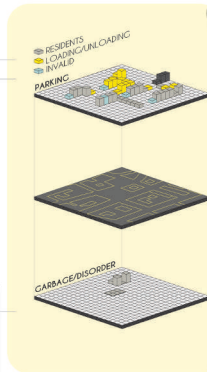
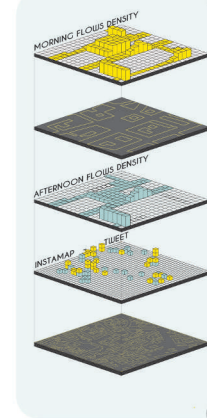


Starting from a survey, interviews and in loco observations, it has been possible to extrapolate some **problems** concerning our study area. Firstly, this zone is characterized by a lack of attraction points of interest areas, especially in late hours, thus this fact evoked a general and increasing depopulation during the day by now the area acts as place of transit. This problem has been analyzed through diagrams concerning pedestrian flows and social network activity. Secondly, parking areas seem to be not accurately planned

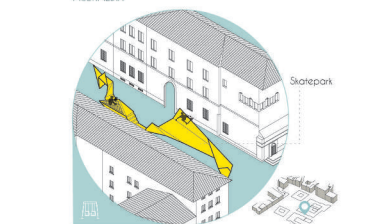
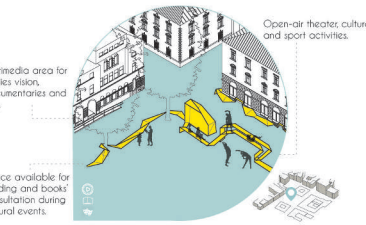
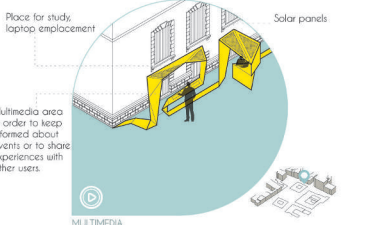
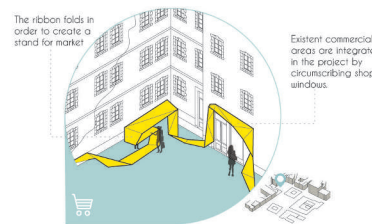
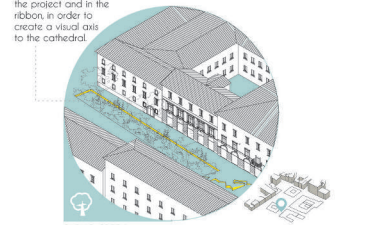
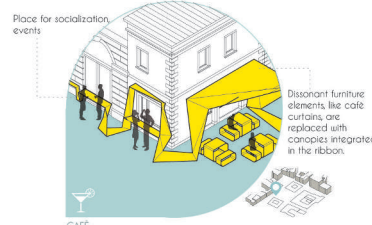
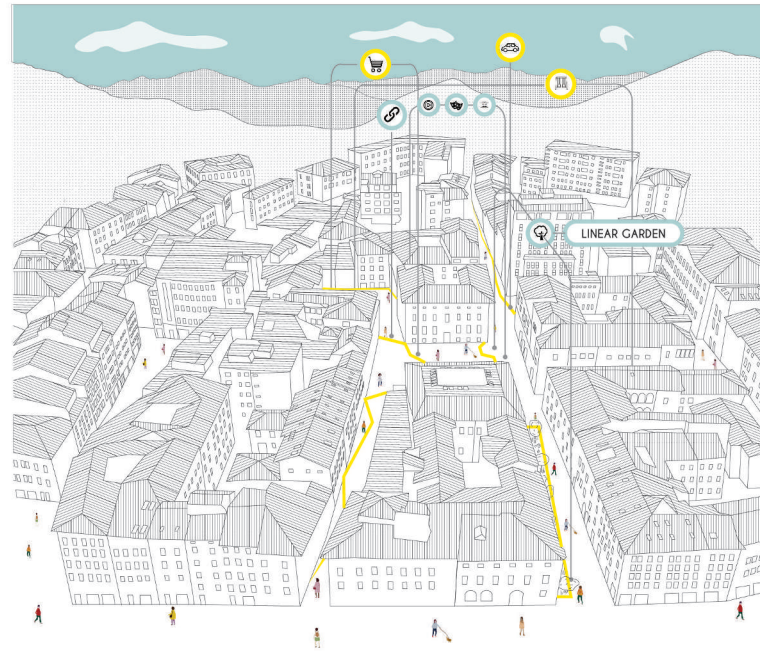
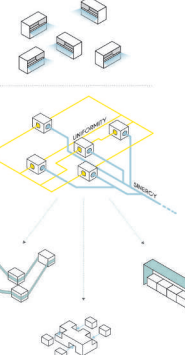
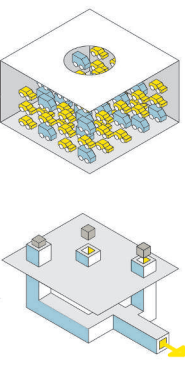
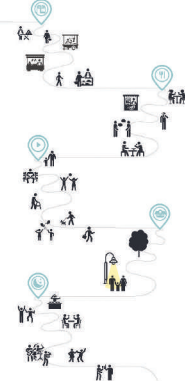
and, for that reason, often congested. As a matter of fact, parking places are relegated in areas that could be destined to community. Another critical point, which is present particularly in Piazza delle Erbe, is represented by the presence of garbage left by market and bins in order to solve this problem, we have thought to install an innovative system of waste disposal: pneumatic garbage collection. Moving to street furniture, it results inefficient, not planned, and thus not used by the community.

Moreover, market stands are characterized by lack of cohesion: as a matter of fact, they could exist independently from one another. In addition, all these stands are pointed to the plaza center, creating an enclosed space and leaving an external range ring. All considered, our intention is to operate against these aspects, integrating all these functions through a sort of crumpled up ribbon.

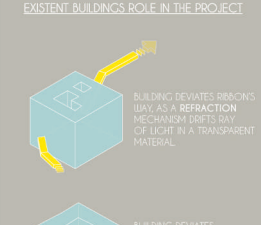
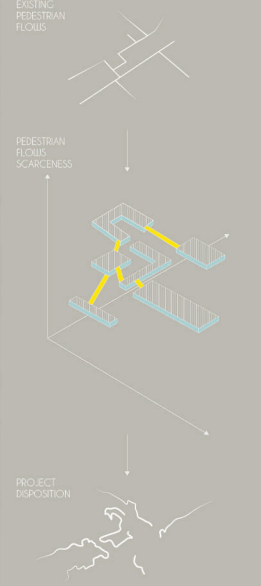
CRITICAL POINTS



GOALS

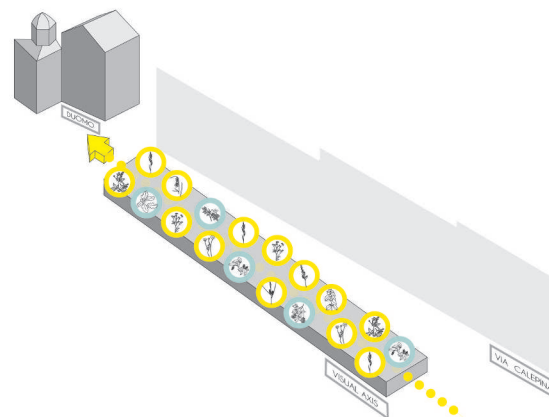


FLOWS SCHEMA AS AN INCIPIT FOR DESIGN

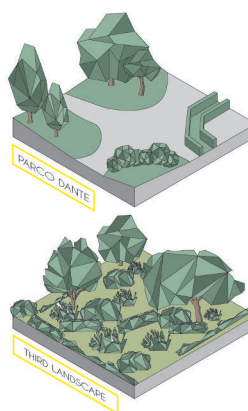




GREEN AXIS TO THE CATHEDRAL



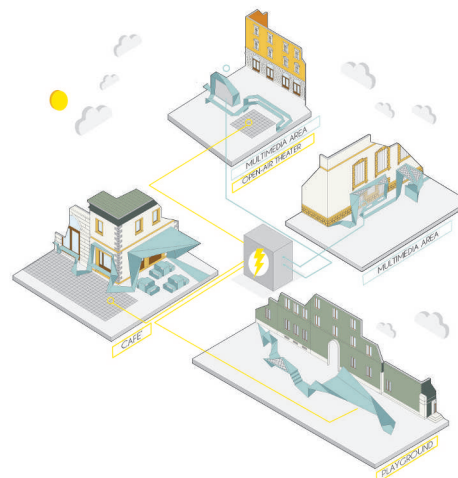
ACTION AND NO-ACTION



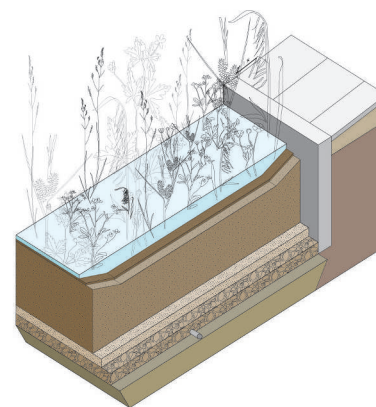
First of all, we intended to enhance the **axial perception** to Trento's cathedral, through the creation of a **linear garden** in Via Calepina. Secondly, through this device, it will be possible to conduct a social **experiment**: as a matter of fact, according to Nassauer, a landscape is generally appreciated by a community only if there are clear signs of human intention in it. This is also recognisable in Trento's green areas, for example in Parco Dante. Our garden means to take position against this inclination instead, by recalling the concept of **"third landscape"** offered by Gilles Clement. The principal project's aim is **didactic**: to let people know that even native and humble flora species can have an ornamental function and dignity (*"In praise of vagabonds"* - Gilles Clement). He believes that landscape's maintenance cannot only rely on few experts, but it is in charge of the entire community. Thus, we intended to organize **workshops** in order to plant activation species for this sort of **"time landscape"**.

In this sense, we intended to create a **competitive dialogue** between garden and ribbon: on the one hand, they are in contrast as the first represents a space of no-action, closed off to humans, and the other stands for a man-made place, isotropic and not only accessible, but also modifiable by them. However, they are also part of the same aim, having always the human figure as a central point: by preserving biodiversity (*"Vegetal polytheism"*), possible thanks to no-action on landscape (*LINEAR GARDEN*), in the future it will be possible to preserve not only the "machine planet", but the "gardener" (human) (*RIBBON*), as well.

AUTO POWER SOURCE BETWEEN AREAS



RAIN GARDEN



Our area of study is characterized by a **strong impermeability** since it is completely tiled. As a solution to this problem, we have thought to transform the green axis into a rain garden, which **filters pollutants** coming from tiled streets, and extracted water could be used to irrigate plantations. Shown below layers in order from up to down:

1. **PLANTS**: they help to filter pollutants and look attractive.
2. **PONDING AREA**: It holds stormwater runoff until it steps through the media mix and into the under drain system.
3. **GRAVEL MULCH LAYER**: it prevents weeds and helps prevent soil drying out.
4. **RAIN GARDEN MEDIA MIX**: it is composed by a percentage of 30% of clay, 30% of sand and 30% of organic soil. These components filter pollutants.
5. **FILTER SAND TRANSITION LAYER**: it helps retain media within the rain garden.
6. **DRAINAGE LAYER**: it collects and transports filtered water towards the stormwater collection system through the **UNDERDRAIN SYSTEM**. This water could be used to irrigate other soils anywhere.
7. **RAIN GARDEN BASE**: loosened to 300 below surface to assist in partial soakage.

COMPETITIVE DIALOGUE BETWEEN RIBBON AND GARDEN

