

## **An atlas of rituals** - *A framework of trails and stations*

Expanding through vast and ancient territories of urban centers to rural peripheries; coastal breeze to inland winds; agricultural lands to nature reserves, Bitonto's municipal terrain transpires a diverse range of multilayered socio-ecological encounters on its historic routes and roots, reconciling the human and natural spheres through the story of "olive". Olive's pristine existence on this territory not only incites countless processes and a life around olive's cultivation, but also, its essence instigates a preserved space for constant natural transformation yet of outstanding permanence, enduring and witnessing through time, becoming the common heritage of natural and human artifacts, and perpetually connecting the heterogeneous and diverse ecosystem, history, culture, civilization, religion, architecture and r/urbanism of Bitonto.

With its ancient origins, this eminent hardy evergreen tree has been considered sacred, a cultural symbol that is associated with longevity, health and fertility; it became an emblem of peace, victory and purity. Its growth, cultivation and harvest cycles prompted a myriad of rituals from common conversations and multi-scalar productive networks. The dominant character of the Olive Tree in this region is indisputable. This specific potential and offering of Bitonto open up possibilities to re-establish and re-question the connections between the urban and rural, center and hamlets, past and present, human and nature, machinic and organic through the processes of olive.

Interpreting the connection between heritage and nature through exploring Olive Tree's existence in Bitonto, the project proposes a 'process-driven' design approach, and probes instigating a new form of "connectedness" through a framework that revolves around the cyclical rituals of olive to enable dynamic coexistence of socio-ecological/cultural/economic mutations. An olive tree's calendar creates the foundations of this uniting framework: **Inflorescence** (*Beginning of the reproductive cycle: floral induction begins, new sprouts start to grow*), **Flowering** (*The moment of pollination and fertilization*), **Fruiting** (*Petals fall off and the fruits emerge*), **Ripening** (*Hardening of the pit and maturing of the fruit*), **Harvest** (*Collecting, picking, transporting, cleaning, milling, extracting and storing*), **Rejuvenation, pruning and dormancy** (*Preparing the tree for the following harvest. Repair, restore and repeat*).

Each process both literally and metaphorically suggests events, activities and implementations (rituals) that originate from the essence of the particular moments in the cultivation cycle. The moment of pollination, for instance, both enables the flowering of the tree and the seasonal events for the pollination of ideas; the time of the harvest, not only an occasion of collecting the produce, but also a period when public crowdsourcing or voting results; the rejuvenation and dormancy period, a time of repair for the olive tree and also, a term to collaborate in the ecosystem restoration of the natural reserves. All layers of connectivity and all rituals are harmonized with each other through the processes of olive; within this multilayered framework, the layers of connection become trails of rituals while the squares, stations of these rituals. Each trail reinvigorates itself with a catalogue of eco-spatial strategies to achieve robust layers of connectivity.

Aiming to integrate and encourage processes and activities within the daily life of this olive territory, the project supports this framework with a responsive and communicative virtual ecosystem that embodies an augmented environment of user interaction and data. With its layers offering a distributed information system to provide active ecological monitoring interfaces to self-organization tools, urban circulation to event calendars, the adoption of the digital communication layer consolidates more empirically-based human & nature centered design aiming to cancel distances, promote its locality via global mediums and to achieve participatory, transparent and dynamic future for Bitonto and its hamlets.

### **Trails of Rituals**

Synthesizing the characteristics and priorities of Bitonto's territory, the project introduces and employs five connectivity layers. With their strategic interventions (rituals), these layers strengthen the existing ties and create new channels to form new relations. They illustrate a vision for the region to enable eco-spatial conditions, socio-ecological interactions and an active public realm by promoting systems of reconciliation,

adaptability, resiliency. This approach attempts to create an eco-political project that reinterprets the connotations of a productive landscape; it aims to become not only a project of passive preservation and re-naturalization, but of characterization and symbiotic activation.

### 1. Hydrographic network trails

Through a systematic approach based on scrutinizing the unique resources of the region, the karstic limestone geomorphology and hydrography of Bitonto set the foundations of networks. This porous topography is characterized by natural underground drainage systems and sinkholes accommodating landforms such as dolines while manifesting itself on the surface with deep karst gorges (lama); it absorbs water rather fast and constantly nurtures the deep groundwater reserves.

To preserve and ecologically restore of this unique hydro-morphology, the project employs natural water filtration methods (raingardens, bioswales) around the porous grounds for the surface water to be purified before it is soaked in towards the aquifers. Also, by creating water catchment areas within the agricultural lands and adopting gravity-led natural irrigation ditches, the project aims to direct and collect the water in the lamas and mainly in Lama Balice to aid boosting its biodiversity. It generates a network of infiltration areas and waterways in the greater territory which expands from the cities towards the agricultural lands. While this network manages the rain water run-off, it also ensures the filtration of waters before they meet the natural parks and groundwater. With the proposed water tanks and the bio-retention swales in the rain garden areas, the project also offers solutions to retain rain water to be used for maintenance in drier seasons.

### 2. Ecosystem connectivity trails

Establishing the hydrographic network as the main the channels of ecological connectivity between Lama Balice and Alta Murgia, the project provides a continuous strip of ecotone services for the habitat and wildlife that are integrated with the agricultural lots. This integrative strip embodies supporting native species with low water consumption and stabilizes soil to prevent erosion and slumping around the lamas as well as “Ecosystem research units” and pollination meadows in various locations to increase socio-educational interaction with the nature reserves. Also, adopting from the patch-corridor matrix model, the project converts routes as SP-89, Via Cela or Via Triana into eco-corridors and injects eco-patches within the olive groves to increase biodiversity. The proposed multi-layered plantation provides the necessary conditions for the nutrient exchange and the survival of some aquatic life as well as create resting/nesting points for the fauna.

### 3. Circulatory trails

Concentrating on sustainable and pedestrian-bike friendly solutions, the project offers a set of strategies both for the existing and the proposed circulatory systems and components. The circulatory proposals catalogue, therefore, include diverse options for soft mobility as well as recreational and adventure circuits to encourage various experiences in/around/on/through the region.

Existing bike connections on Via Cela are amplified with infographic signage and equipment while they are also extended both towards Alta Murgia and towards the Adriatic with several links and specifically with ancient Via Traiana. Meandering in between the farmhouses (Masserie) as a soft path, the project introduces an agro-heritage route promoting wandering through the olive groves and the use of farmhouses as resting stops, guesthouses for visitors, temporary accommodation for seasonal workers in junction with Via Cela-Traiana and SP-89. The project also proposes to upgrade SP-89 with bike lanes and electric shuttle bus operation and offers the transformative incorporation of current gas stations with charging/resting stops.

### 4. Local Production trails

Aiming to boost means of production, the project adopts multilayered ecological productivity strategies both on rural and urban terrains. The groundcovers of the olive groves are restored with native shrub and herb species that support nutrient exchange for olives and increase biodiversity, offering more variety of

ecological products and contributes to moderate grazing which used to be a more vibrant vernacular in the area. These additional layers of production will also create a foundation to generate renewable energy from biomass. Similar to olive groves, the project implements hybridity of energy production within the viticulture lands by installing solar panels both as generators and also as shading spaces to enjoy and experience the vineyards. In addition to the rural landscape, strategies of energy production are also employed in the urbanscapes; the vast surfaces of the existing underused flat roofs can turn into productive surfaces for cultivation of solar energy. As one of the prominent resources of the area, local limestone production and workforce are proposed to be brought together for the restoration of the heritage buildings and farmhouses in collaboration with the fablabs and R&D units in Bitonto and Bari.

#### 5. Socio-cultural and heritage trails

Creating socio-cultural engagement with all trails, this layer activates these multiple veins of the region with the sprinkles of temporal events in certain frequencies according to the cyclical rituals that are shaped around olive. Supported by physical equipment such as urban furniture, wayfinding systems, digital info totems, service modules, play-sports pods, lighting, and bike stations; this trail promotes and organizes itself with participatory processes through the digital interface. Evoking movement and tides in between the urban and rural, hamlets and center, Adriatic and Alta Murgia, this trail elicit conversations between the fauna, flora and the human; the past and the future; global and local, reminding us that this is a common habitat in an everchanging landscape. The activities of this trail can vary from ecosystem restoration workshops of Lama Balice to sports and health tournaments on Via Cela or bird observation walks; from vineyard concerts to guided tours of secular olive trees, from farmhouse restoration crowdsourcing events to nature and ancient story walks.

### **Stations of Rituals**

As the stations of all trails, the squares manifest the motions, learnings and the yields of each trail's rituals. Examining the specific potentials and offerings of each square, the project employs them as enabling fields for reproductions, transformations and rediscoveries; promotes them as Bitonto's commons and provides infrastructural enhancement and a landscape of social instruments to instigate different events and experiences, reciprocally reasoned or nurtured by the active collaboration of its public at all scales. This soft urbanism introduces tactical blue-green infrastructure, self-sufficient energy solutions, Co-LABs, ground sockets for event structures and traffic evaporation strategies.

#### 1. Bitonto: Piazza Aldo Moro, Piazza Marconi and Piazza Cavour

As a merged composition of functionally and characteristically distinct squares, this amalgamated space offers a series of diverse fields that are adjacent to each other yet not working together due to the strong presence of car traffic. To unleash the potential of their unification, traffic evaporation strategies are adopted. Manifestation of this space as traffic limited zone and regulatory traffic restrictions during certain days and hours, or complete traffic cancellation during events and enhancement of other modes of traffic (bike, electric shuttle, etc) will discourage car use in the area and in time public spaces that are lost to traffic can be reclaimed.

Sloping all towards Lama Balice, the surface waters of the squares are gathered at the extension of Via Alessandro Volta towards Piazza Castello and transferred to Lama Balice with drainages, bioswales and raingardens to nurture its environment. Treating the same axis as the entrance to the city and the squares, bike paths, bike parking/charging points are introduced and Piazza Castello is promoted as a look-out terrace both to the city and to the Lama Balice. To accentuate the specific spatial qualities of each square three small Co-LAB units are installed around the squares, and to allow for each square to adjust events according to their characteristics, each space is supported by ground sockets and digital info totems. By utilizing these infrastructural enhancements, Piazza Marconi welcomes the citizens like an entrance garden and a central corridor suitable for axial events such as races and parades; through its gate, Piazza Cavour

invites everyone to time travel and learn about history with cultural events backdropped by archaeological remnants; and Piazza Aldo Moro with its 17<sup>th</sup> century baroque square offers an easily adaptable open space for communal gatherings.

## 2. Palombaio: Piazza Milite Ignoto

Collecting all surface runoff from its radially connecting streets, this square occasionally suffers from heavy rains and floods up to 30 cm in various years. By implementing ecological water drainage lines and an underground water tank, the project proposes efficient water management infrastructure for the square.

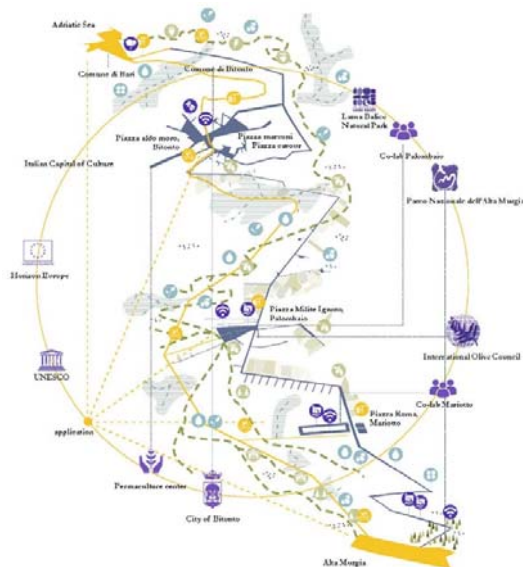
Although a compact small square, Piazza Milite Ignoto of Palombaio offers diverse interaction with gastronomic experiences as Palombaio has the most variety of local agricultural and organic products ranging from pasta and bakery plant to almond groves, fruit orchards to olive groves, viticulture to permaculture association. With the injection of Co-LAB (a collective multipurpose lab of workshops, gatherings, trainings, and cultural events) and ground sockets in the plaza, the project sets the foundations for many events to occur on site. Ranging from weekly farmers markets to pasta-wine-olive gastronomy festivals, this square has the potential to become a daily destination for fresh produce each season and fill its vacant periphery with shops and bars of local agro-products.

## 3. Mariotto: Piazza Roma

Both as an entrance to and from Alta Murgia, this most distant hamlet of Bitonto endures floods very similarly to Palombaio. Implementing same infrastructural strategies of bioswales, eco-drainages and underground water tank, the project offers solution for both for the floods and for the drought that the oak trees in the square suffer from.

With its very large rational and adjustable Piazza Roma, Mariotto offers an open total space to host very big events within Bitonto such as concerts, expos, festivities by attracting visitors not only from Bitonto and Bari but also from the inlands at the gate of Alta Murgia.

The proposed digital tools and the enhancement of digital infrastructure of the project also has the potential to evoke remote working options for digital nomads and can promote Palombaio as a balanced inhabitation node on the urban, rural and natural with its rich connections to trails and a multitude of multi-scalar events.



Aiming to preserve and restore the unique ecological nature of the river within the city, Atlas of rituals focuses on minimized impacts on the natural environment; intends to be unobtrusive as possible to avoid adulteration of the natural components of the region; it offers an abundance of nature-based socio-cultural recreation opportunities revolving around the stories of olive. These eco-spatial scenarios can guarantee socially, economically and ecologically sustainable future for Bitonto and its hamlets, and promote its unique r/urbanity not only locally and regionally but even globally as a case study of incorporation of natural ecosystems and nature-based public activities within the very center human and natural spheres.