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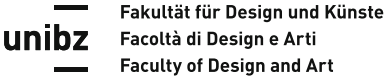
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Introduction to the Conference

MARIO BISSON : Scientific Director

"Transdisciplinarity is the -intellectual space- where the nature of the manifold links among isolated issues can be explored and unveiled, the space where issues are rethought, alternatives reconsidered, and interrelations revealed."
(UNESCO – Division of Philosophy and Ethics, 1998)

According to UNESCO's definition, transdisciplinarity is the intellectual space where the connection among isolated topics can be explored and unveiled.

Thus, transdisciplinarity represents the ability to create synergies between different knowledge areas on common objectives. If this happens, the addressed complexity is superior to any discipline that operates in an autonomous manner; it connects people, it builds a new way of approaching criticalities, and increases personal competencies.

Fragmentation between disciplines, the concept of specialized expertise, is today less and less actionable, it must be considered outdated.

In order to address modern complexity, the high number of information and the criticalities to which we are continually exposed to, creating integration processes that go beyond the simple monodisciplinarity is fundamental.

Today, we find in the transdisciplinary approach the tool with which we can address new challenges, the way in which different disciplines cooperate in order to reach an ultimate goal, overcoming the multidisciplinary and interdisciplinary approaches adopted until now.

In interdisciplinarity, disciplines change in their concepts or tools by means of others. In this approach, disciplines that cooperate and change are disciplines close to each other; these are disciplines that have meeting and joining points by nature.

The term transdisciplinarity[1] was, instead, born in 1970 thanks to Jean Piaget, a Swiss psychologist, philosopher and biologist. The given definition outlines an approach that overcomes and interweaves different disciplines; it comes from rejecting fragmentation of knowledge in order to reach an integrated ad unified understanding of the world.

Have you noticed how new disciplines, so-called frontier disciplines, are ever-developing?

Mechatronics, biotechnologies, etc. all come from engaging two sciences, from the genius of individuals that were capable of merging them and getting them to talk to each other; individuals that were able to seize and manage to the best the complexity of certain phenomena and the diversity of several disciplines, creating a synergy among them, giving life to something new. Analyzing elements and solving problems left in the dark so far was possible only by merging different points of view. This very synergy distinguishes the transdisciplinary approach from the previous ones; the multidisciplinary and interdisciplinary ones.

In the transdisciplinary approach you don't have a simple sum of disciplines, but a reciprocal cooperation and modification.

The transdisciplinarity of environmental design is the strategic key to make the integration into a system of the environmental, social and economic aspects possible, in that it satisfies the need to involve and coordinate, in every phase of the configuration of the future, the researchers of different knowledge areas in order to configure a whole where everyone gets and gives knowledge, as a means of innovation.

But what does innovation mean? The dictionary suggests: «mutating a system implementing something new: ideas, points of view».

This definition does not exhort, nor imposes, a change in technology, like industrial tradition got used to; if anything, it illustrates the inclusion of a new vision in a system, a new way of approaching reality. Thus, innovation does not lie in continuous technologic upgrades, but instead in the change of perspective from which issues are observed. Innovation does not involve studying or perfecting a technologic aspect, but in constant research through design culture. It is therefore necessary to change approach on issues and start from the assumption of getting to talk, dialogue, compare different scopes: design, industry, politics, environment, society, economics, etc.

None of these scopes are autonomous, they all are in strict correlation and interdependence, forming a system, a whole that is «constituted of several interdependent elements, joined together organically» by definition.

In this moment in history, we are in contact with machines filled with data: data of various kinds, about different subjects and topics, but always interconnected. Maybe this is one of the reasons why among future skills the necessity to develop the so-called transdisciplinarity is growing. Knowledge is not unified anymore: we stand before a huge number of sources that give back a complex reality for which the simple juxtaposition of disciplines does no longer suffice. A different, more articulated, more integrated and interconnected approach in "problem solving" of complex situations is needed, precisely a transdisciplinary one.

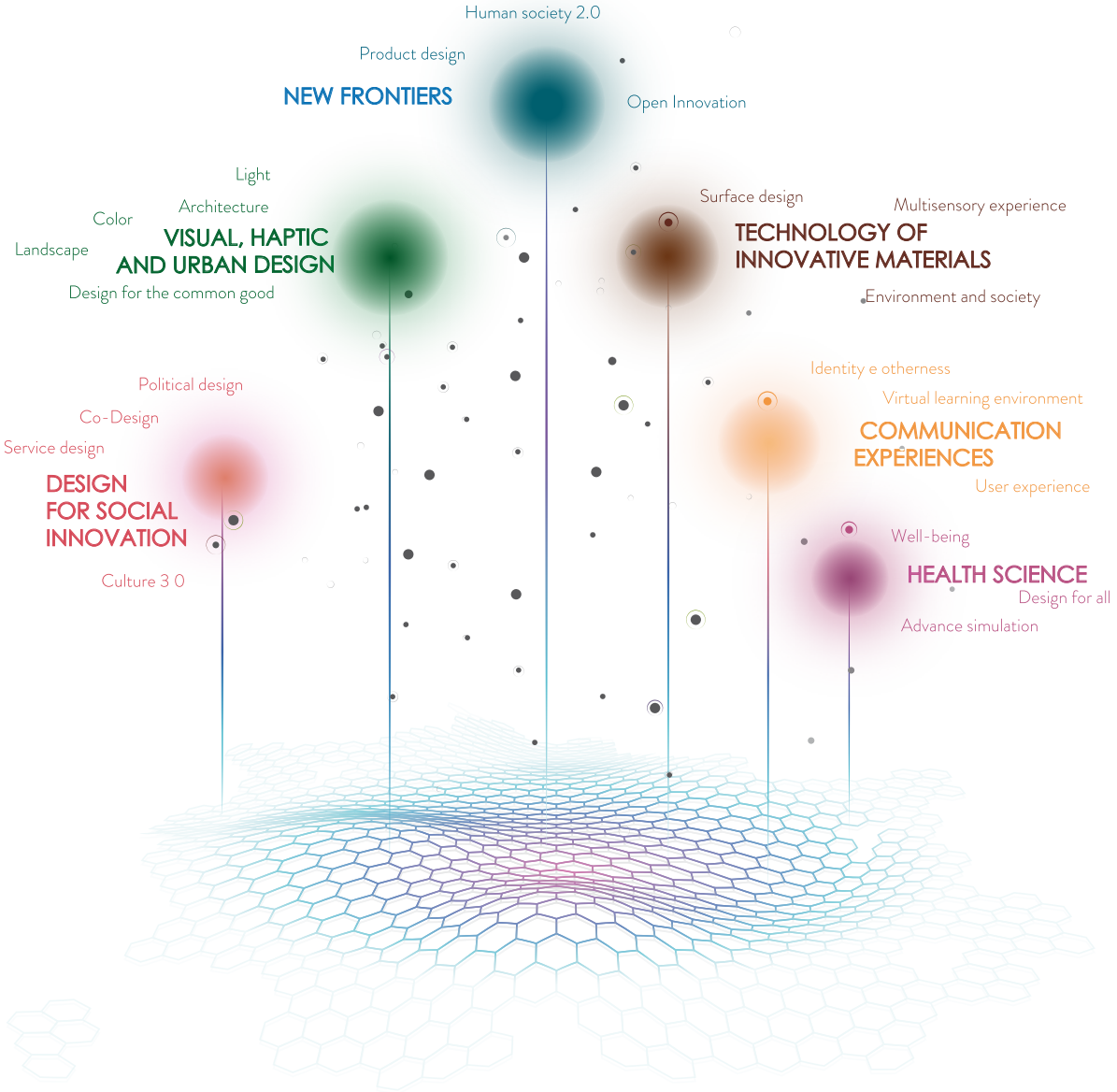
This approach is also the cornerstone of MDA's (Mediterranean Design Association) activity, an association born in Agrigento in 2013, that poses as its objective the development of research activity through a new scientific and cultural approach, based, obviously, on transdisciplinarity, conferred by the reciprocal and continuous influence of different extant sciences.

Progress demands research, studying the existing with an eye to the future that can lead to the birth of new scenarios; we constantly talk about environment, pollution, traffic, consumption: we complain, discuss it with friends, but don't always really participate. The conference on environmental design is only a way to start divulging how much research does in several fields, on different levels: from the scientific from the public one, from the business to the social one. Discussing, analyzing, suggesting is the only way to deal with the future in a constructive and integrated way. The scientific excellencies that were invited, coming from different parts of the world and from illustrious research centers, are called to discuss, listen and suggest new thoughts; the same possibility is given to new researchers, giving a moment to expose, on an international plane, the advancements of their own research.

All this becomes a chance of participation and confrontation that is useful to the vision that MDA has set itself since the start: improving the quality of life…

Notes

1. J. PIAGET, L'épistémologie des relations interdisciplinaires, in AA.VV., L'interdisciplinarité, pp. 141-144 (trad. it. in J. Piaget, J.S. Bruner et AL., Pedagogia strutturalista, Torino, Paravia 1982, cap. IV da p. 131). Unlike interdisciplinary ones, multidisciplinary relationships establish themselves when "the solution to a problem requires information from two or more sciences […] without, however, having the disciplines modified or enriched by the ones used"; transdisciplinarity makes "links in a system that's totally devoid of stable boundaries between disciplines" possible. About interdisciplinarity, it's good to keep in mind the following quote, extrapolated from Le scienze dell'uomo: "the acquired techniques in a natural science 'can be' able to directly clarify what was necessary to build to solve a complex problem, fundamental for the sciences of man" (J. PIAGET, Le scienze dell'uomo, Universale Laterza, Bari 1983, p. 81).



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Design and tourism, value to territories

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KEYWORDS:

| *Tourism*
| *Territory*
| *Cultural heritage*
| *Process*
| *Systemic*

Abstract

How can tourism give value to a territory while respecting its cultural and environmental heritage and local identity? What if that territory is a UNESCO world heritage site?

Talking about tourism also means talking about social aspects, mobility, economy and education, topics that are often dealt separately, with a linear perspective focused on profit and short-term feedback. But a more active tourism is increasing. Terms such as sustainable, responsible, slow are spreading and are well combined with areas of high cultural and landscape value, shifting from the concept of conservation to that of promotion.

Design, which is shifting from product to process, can revitalize territories, optimizing exchanges and creating synergies to encourage a necessarily more responsible use of tourism.

Introduction

Tourism aims to know the world and getting away from everyday life for fun and pleasure. But the touristic sector, in light of the current concerns about climate change and over-exploitation of resources, necessarily requires a change.

This article considers the shifting of touristic flows from over-exploited areas, victims of overcrowding and gentrification, to inland areas. There is possible to develop a more conscious and respectful fruition and where design can affect the quality of the proposed offer, both reorganizing territories and training travellers.

In order to propose a new type of tourism, it is necessary to prepare the territories to welcome it. For example, by encouraging the opening of craft shops and expanding the offer of local foods and wines. As Magnaghi (2013) says in "Riterritorializzare il mondo", there is a need for a local socio-economic system which encourages productive relationships and fair exchange. Giving greater value to common goods and integrating the social and environmental characteristics within the production system of the territory, all of which is now increasingly disconnected. Going back to the territory and to the common goods will produce a ""lasting, shared and sustainable" wealth (Magnaghi, 2013, p. 52). Betting on cultural and natural assets, combining them with an organized and structured service can create new attractiveness.

"Heritage is our legacy from the past, what we live with today and we pass on to future generations. Our cultural and natural heritage are both irreplaceable sources of life and inspiration" (Unesco, n.d.).

There are two concepts to highlight: identification, through which we acquire awareness of the characteristics and values of a territory, and transmission, through which we pass history and values to future generations. Therefore, today the great challenges for designers are: a) respect the territory and the local community; b) allow the development of tourism to harmoniously coexist with the cultural and natural heritage.

A short but constantly changing history

The history of tourism, as we understand it today, is quite recent. The sons of the English nobles were the first ones to embark in trips in the 16th century, followed by the great landowners and the middle class in the 19th century. They were character-forming trips which last for years, due to the scarce means available, the road network of the time and the unpredictability of events. Since the beginning of the 20th century, knowledge of the world increased, means of transport were more numerous and faster, and in European countries labour laws were limiting working hours to leave room for "free time": tourism was no longer something exclusive for the rich but became accessible to the many (Del Bò, 2018, pp. 20-21).

The four eras of tourism are (Battilani, 2001): a) Prototourism, from ancient Rome to the beginning of the Industrial Revolution. It is the elite who go on holiday. There are no specialized structures and the economic impact is almost zero; b) Modern tourism: it is mainly the 18th century Grand Tour that the children of the aristocratic families of Northern Europe made, but it extends from the 16th to the 20th century. The first specialized structures appeared; c) Mass tourism, which developed during the 20th century, became a commodity within the reach of all walks of life. The services dedicated to tourists were expanded and diversified; d) Global tourism, starting from the end of the 20th century. In a world where it is possible to travel everywhere, what counts is experience and no longer the destination, "theatre-tourism" is affirmed.

Unfortunately, tourism brings with it considerable consequences for the territory that hosts it and for the communities that, in a certain way, suffer it. A curious aspect: the widespread feeling of lack of responsibility of tourists on holiday (Del Bò, 2018, p. 9) who feel entitled to relax and not to pay too much attention to the impact of their choices.

The negative phenomena described so far, in recent decades have been accentuated because of the dreaded "overtourism", which constantly threatened cities like Venice or Florence. In 2018, the term became so popular that it was introduced in dictionaries with the definition coined by Greg Dickinson in the English newspaper Telegraph:

"The phenomenon of a popular destination or sight becoming overrun with tourists in an unsustainable way" (Dickinson, 2018).

Today, the middle class includes about 3.7 billion of people, a figure that will grow in the next 5 years by about 160 million a year (Kharas, 2017). The massive increase in tourist arrivals depends mainly on two factors: at the beginning of the 21st century the Chinese market saw 10.5 million Chinese people travelling and the new generation, young people between 22 and 37 years, prefer to spend its money travelling. Currently, tourism has 300 million people employed, a figure that in the next 10 years will grow to 360 million (Dickinson, 2018).

Tourism, moving large amounts of people and a lot of money, can generate social and economic development, but it must be revived in a sustainable perspective. It is our duty towards future generations to do so, in line with the principles of sustainable development which, as the report "Our Common Future" reminds us, is:

"A development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 37).

Sustainable tourism has been in the discourse for some time now and the World Tourism Organization[1] defined it as it follows:

"Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (UNEP-UNWTO, 2005, pp. 11-12).

Sustainable tourism acts on three fronts (UNEP-UNWTO, 2005, pp. 11-12): a) conservation of natural heritage and biodiversity; b) conservation of the cultural heritage and material culture of the local communities, intercultural understanding and tolerance; c) equitably distributed socio-economic benefits, with stable job opportunities for poverty reduction.

In the online platform called Tourism4SDGs it is possible to share research, events, initiatives and good practices. It also includes a section dedicated to the sustainable traveller with tips for a more responsible journey (Tourism4SDGs, n.d.).

A design of systems and behaviours

The role of design and designers is now considered fundamental to bring about societal changes. The increasing number of degree courses about social, participatory, strategic and sustainable design demonstrates the shift from the world of industrial products to processes, services and experiences.

In the past - writes Thackara (2005) - design was concerned with shapes and functions of things. It developed solutions limited in time and space and with a fixed structure. In the ultra-connected world we live in today, it makes much more sense to turn design to the process, a system that is constantly being renewed and redefined (Thackara, 2005, p. 224).

The XXII Triennale in Milan also recounts this change: although it still displays many artefacts, the exhibition focused on design processes. As Paola Antonelli and Ala Tannir said in "Reparation by Design" published on the website brokennature.org and reported in the presentation of the exhibition catalogue:

"Designers and artists are able to formulate, through artifacts and concepts, urgent political questions that cannot rely solely on regular processes to enter public discourse. In regards to the environment and all associated concerns, in particular, state policy is driven to make reformations by the priorities that researchers, designers, activists, scientists, architects, and citizens set forth" (Antonelli-Tannir, 2018, p. 29).

In designing for the territory, designers can act in at least two ways: a) work on territorial systems, making them more efficient and collaborative with each other; b) influence people's behaviour towards the adoption of positive attitudes for man and the environment and towards the reduction of touristic activities impact.

Considering tourism as a great system, we know that by correcting one element we can create positive repercussions on several fronts. The touristic system, however, includes many other thematic bubbles (Fig.1). We are faced with a system of systems[2], crossed by constant flows of people (residents) and, as variables, tourists.

01
Tourism thematic bubbles

01

After acting on the system, the designer could educate the traveller to reduce as much as possible the "damage" of his tourist activity, which, according to del Bò (2018), are mainly four (Del Bò, 2018, pp. 57-58-59): a) Inevitable, due to the displace-

ment and the actions which are carried out; b) Linked to the excess of tourism, in a way that inevitably put a territory to the test in terms of resources used, emissions and waste produced; c) Derived from wrong individual behaviours, either immediately (because of a single wrong gesture) or cumulatively (many small gestures protracted over time by several people); d) Derived from contingently wrong behaviours, meaning that they would not be wrong in the context of the tourist's origin, but they are wrong in the place of travel.

Design can act on all four types of "damage" through the shaping of a communication strategy and the provision of sustainable services.

As far as communication is concerned, it is possible to act before the trip, offering an integrated digital system (website, App, blog) that provides exhaustive information on the destination, to lead the user to be respectful of the context; on the spot, communication can be material (signs, information supports), and immaterial (services such as tours, audio guides).

As far as sustainable services are concerned, it is important, in the phase of territorial redesign, to propose to the user an offer highlighting positive actions rather than imposing prohibitions. Two examples are given below. The first concerns an initiative by the City of Turin that is about to take off and rewards citizens who use the bicycle as their main means of transport, especially for home-work commute. Depending on the number of kilometers travelled, Turin citizens will be able to receive vouchers to spend on public transport (Ricca, 2019). Rewarding for a right action instead of punishing for a wrong one is the rationale of such a project.

A different example, which associates fun with good daily practices, is the World's Deepest Bin, designed by the Fun Theory group. It has accompanied people with a on a "light" and continuous education to throw away 41 more kg of waste per day in the bin, instead of throwing them on the ground (Niedderer, 2016, p. 69).

The designer's ability to observe a phenomenon in this sense becomes primary, combined with his ability to listen. A territorial project must be done together and within the territory, to be able to record the changes, the ability to adapt and the resilience.

The following case studies show the creation of a sustainable tourism system for the territory and the local communities. The traveller's education and training are at the baseline of the tourist experience.

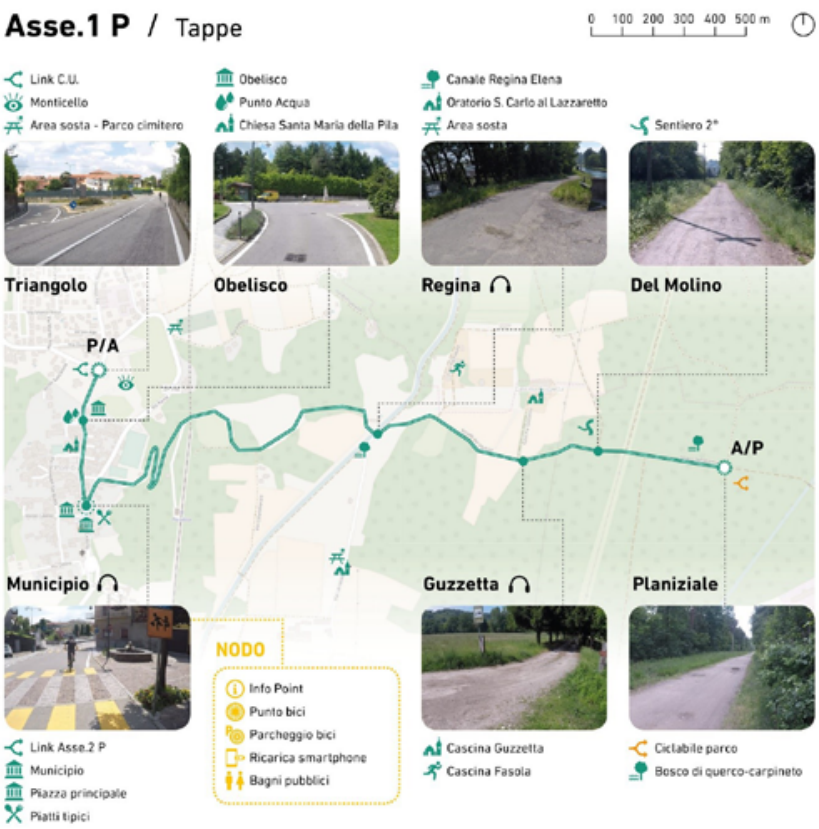
Case studies

- ***MEET: Movement for Education, Exploration and Tourism in the Ticino Valley***

MEET Ticino[3] is a project on cyclo-tourism in the Ticino Valley Biosphere Reserve[4], between Piedmont and Lombardy. MEET is Movement because it provides a network of routes for the discovery of local culture and natural beauty; Education because it leads to explore the Biosphere Reserve, a place to be experienced and protected first hand; Exploration because it gives value to small towns, having them showed by their inhabitants; Tourism because every choice can make a difference, to support a good, clean and fair economy[5].

For an area like this, slow and sustainable tourism becomes an opportunity to: a) give value to territories with beautiful landscapes, rich in biodiversity and cultural aspects; b) increase the sense of belonging of local communities to the Biosphere Reserve; c) strengthen the union between the Piedmontese Park and the Lombardy Park, using the Ticino River as a bridge between the two regions.

The MEET project starts by systematising the web of existing cycle routes, connecting them with each other and with local resources. A field study has highlighted regional differences and selected the most direct and safest cycle paths, creating an official network of low impact connections. In addition, cycle routes combine with public transport to encourage the train+bike intermodality (Fig.2).



02

02
Cycle route in the municipality of Pombia, there are the stages with points of interest and services for cyclists

03

03
Designed interfaces for the MEET Ticino App where the different sections are visible: MAB, Tours, Routes and Stops

Also, accommodation and catering facilities were connected to offer typical products or services for cyclists, thanks to a system of agreements with the park authorities: a clear incentive to the local economy.

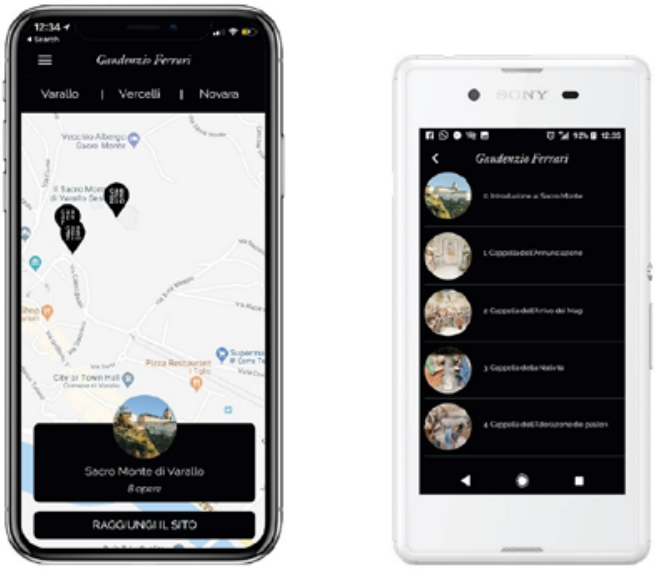
MEET is aimed at two targets: the traveller who wants to visit an area with a beautiful natural landscape as well as the local population who appreciate and respect local resources. For this reason, the project also involves the local community through guided tours in small municipalities, organised by the citizen for the traveller as a means to educate and explore. An App was designed to book a tour, a table, a room, or to configure a bike path and to listen the audio guides along the tracks (Fig.3).

MEET also has a strong and recognisable visual identity. The designed logo evokes the image of a bridge, as the project "bridges" two territories (regions) and it also evokes the river, a key element in the project development. The corporate image also includes the project of a uniform system of signs along the cycle paths and a system of paper maps coherent with the information in the App

A systemic project for a diffused art exhibition: The Renaissance by Gaudenzio Ferrari. The diffused exhibition "The Renaissance of Gaudenzio Ferrari" was created with the aim of being a vehicle and generator of relations and systemic practices for the regeneration of the territories of Varallo (VC), Vercelli and Novara. More than 37,000 visitors travelled between the venues and visited these places between 23rd March and 16th September 2018. The project, promoted by the Region of Piedmont and organized by the association Abbonamento Musei, Pinacoteca di Varallo together with the three municipalities mentioned above. It consisted of the exhibition of the

major works of the Piedmontese artist in many locations in those areas and a series of cultural activities, both scheduled and spontaneous. The exhibition's aimed at highlighting and showing to a wide public the work of a local artist of the 16th century and the regeneration and development of areas characterized by discreet marginality and signs of neglect. The exhibition has therefore become an instrument of cultural promotion a substructure from which to trigger additional processes of local revitalization and territorial cooperation. Every aspect has been characterized by the purpose of creating a relational network between institutions, organizations, associations and local communities.

The communication project, including an App for the fruition of support materials and movements in the area, and in particular the Gaudenzio logo, played a key role[6], acting both as a narrative element and as an activator of conceptual and concrete relations between reality and community (Fig.4).



04

These assumptions have found fertile ground and realization especially in the city of Varallo, where the visual sign of the seal Gaudenzio became a vector of place branding. The logo was in fact the protagonist of a bottom-up adoption process that was generated and expanded among many manufacturers and traders who began to use it to distinguish some of their products. The characterization that took place in this way has brought to the forefront of a wider audience the excellence of the food and wine sector, of which the toma Valsesia should be mentioned, and crafts, including the "Scapin", the slipper of the ancient Walser people.

04
Screenshot from the "Gaudenzio" App, download from the AppStore and Google Play Store

04
Scapin Slipper, Moresco Cashmere, Varallo - Jar of chestnut honey, Apicoltura Sategna, Civiasco

05

Conclusion

This article aimed at dealing with the topic of sustainable tourism by looking at the history of tourism and the issues related to it. It also wanted to show the contribution of design in terms of territorial planning. The illustrated case studies provide a solid example of how to deal with a project that is about "good" tourism, including all the issues at stake, from that of transport to that of services, from that of communication to that of travellers' training. There is a lot of excitement on these topics in recent times, there is an air of change and a desire to do our part to reduce the environmental impact that we cause with our daily choices. Putting a backpack on your shoulders or riding a bike can be a good start. The rest of the journey is made by the quality of a well-designed system, by relationships of cooperation between production activities, by dialogue between communities, by serious policies to enhance the value of the heritage. Much can be done in this sense, it is a matter of choosing priorities for a specific territory and it is necessary that the design is carried out on the spot, making the designers listen, observe habits and rediscover the material culture of territories.

Notes

1. The UNWTO is the specialized agency of the United Nations. Since 1975 it promotes the development of the responsible, sustainable and universally accessible tourism (UNWTO, n.d.).
2. Inside the tourism system we can find some sub-systems: transport, hospitality, entertainment, orientation, communication. An exercise for helping to use the systemic thinking. A systemic project (Bistagnino, 2009, p. 22): a) outlines the material fluxus to reduce the ecological footprint and to increase the economic flux; b) organizes each parts inside an ecosystem, so they can evolve together in a coherent way; c) organizza e ottimizza tutte le parti all'interno di un ecosistema affinché evolvano insieme coerentemente; c) manages the relation between the different actors during every project phase.
3. The project MEET is the result of a Master Thesis in Systemic Design, Politecnico di Torino (2018). Irene Caputo, Giulia Damiani. Professor: Pier Paolo Peruccio.
4. The Ticino Valley was born in 2002 and it expanded in 2014 and than in 2018. It includes the Ticino Park, the Val Grande National Park, Campo dei Fiori and other natural areas. It changed its name in Ticino Val Grande Verbano. The UNESCO BRs are part of the MAB Programme, a scientific intergovernative programme started in 1971: www.unesco.it/it/ItaliaNellUnesco/Detail/186
5. From the famous slogan "Buono, pulito e giusto" by Carlo Petrini. 2005, the Slow Food phylosophy. The success of a slogan: www.slowfood.it/35995-2/
6. A project by DAD - Politecnico di Torino; team: Pier Paolo Peruccio, Paola Menzardi, Maurizio Vrenna, Riccardo Degli Emili, Lorenzo Saracino. Design and development of the App: DAD - Politecnico di Torino and ULIXE Group

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