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Conference proceedings

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Visual Communication for Natural Capital

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- | Identity | Places
- | Cultural Heritage

Abstract

Natural Capital is one of the new scenarios in which the discipline of Design - in particular of visual communication - is called to be able to have its say. A radical paradigm shift and approach to the Natural System's communication project has been underway for about 10 years. The park authority system and the network of actors involved in the management of the Natural Capital of our planet has begun to implement Design-Driven solutions. From the emblematic cases of the Norwegian National Parks in Norway, passing through the Greek Calabria Cultural Park, up to the educational practices, the role of the design project as a system clearly emerges, as a strategic discipline capable of integrated responses between immaterial and real-virtual material, proposing, from the point of view of language, truly structured, territorial and relational solutions; narrative systems of history, of diversity, and therefore of the "culture" of a place through real crossmedia storytelling, able to immerse people - right from reading a flyer or post on social media - in the specific features offered from the single park. The careful study of the peculiarities that each reality brings with it - also through tools borrowed from historiographical research, or in the most interesting archaeological cases - together with a range of immersive experiences, are the key that Design-Driven approaches can give to the paradigm change required: from park visitor to inhabitant.

Introduction

"From the end of the seventies onwards human beings began their journey of decline towards the world, they are indebted to the Earth, they lived and live on resources they do not possess, taking them away from future generations" (Global Footprint Network, 2018).

Although the last fifty years have been characterized by a strong debate around the theme, it has only recently been emphasized the value of nature as a guarantee of the future of humanity in terms of biodiversity as cultural heritage: the environment and its primordial structure are fundamental for life, and for this reason they belong in every way to the human culture. Exploring the theme of preservation, conservation, enhancement and promotion of biodiversity - as Natural Capital, cultural heritage and tradition of people – result to be a trend topic which the discipline of design, as a tool for promoting material and immaterial culture, has to face.

Today, there is the need for good design (Sinni, 2018), which the discipline of Visual Design through the reelaboration, critical reading and translation (Baule, Carrati, 2014) of the signs of the place could give to the cause. If, on one hand, the national and international institutions and policies in charge of protecting and enhancing Natural Capital conceive the organism as an eco-system of essential goods and services for humanity, on the other hand the economic etymology of capital, brings with it a reflection on what are the levers to be touched for a sustainable economic recovery based on value and well-being derived from the natural heritage.

The practice of design - gleaning from visual cultural heritage - re-elaborates, as a DJ, the contents (Anceschi, Botta, Garrito, 2006), signs, sounds, images and traditions, thus developing structured communication projects - multi-media and cross-media

(Bollini, 2004). Designers are able to understand the naturalistic peculiarities, the biodiversity and the ecoservices that the context possesses and can offer, also allowing an evolution of the user experience of the inhabitantsusers no longer simple casual users, thus ensuring a share of ecotourism active on the territory in traditional cultural activities (Konaxis, 2018).

Design & Natural Capital: an overview

A radical paradigm shift and approach to the Natural System's communication project has been underway for about 10 years. The park authority system and the network of actors involved in the management of the Natural Capital (Shumacher, 1973) of our planet - from Europe to America, passing through small regional realities, Italian and non- Italian - has begun to implement Design-Driven solutions. Design - far from being a simple secondary apparatus whose realization is often the result of self-made solutions - acquires a clear strategic role to give meaning to things (Verganti, 2005) - in this case, the biodiversity. Many relevant studios and agencies to the broader field of design - see Snøhetta Design Studio or Pentagram Studio, have been leaving their mark.

As the Italian Ministry of the Environment (2016) explains: "The concept of 'Natural Capital' has been instrumentally borrowed from the economic sector to indicate the value in physical, monetary and welfare terms offered by biodiversity to the human race, also in order to guide choices of public decision-makers".

This renewed awareness seems to have marked the changing of course guided - instrumentally and projectually - by the discipline of Design - in the etymological way of designatore¹- as a lever of innovation based on listening, interpretation, and communication (Verganti, 2005). The political weight of enlightened actors, who have placed in the design project the role of conservation, enhancement and promotion of the natural heritage, emerges through the analysis of some of the most recent design projects, representing the contributions that Design can give to the enhancement of Natural Capital. This feature is clearly verifiable both nationally, as demonstrated by the visual design systems designed in Norway, Japan and Croatia, and in more circumscribed and regional territories, such as the communication system adopted by the Greek Calabria Cultural Park or the experiments carried out for some parks and protected areas of the Italian region of Lazio, equally noteworthy for innovation, contemporary signs and respect for the uniqueness of the place. The Design project embraces all the aspects of the park's life, working through a systemic approach, as regards the diffusion and declination of the visual identity, as well as punctual, as regards the value of the uniqueness of the signs through the re-reading of specific territorial traditions.

When Design meets Natural Capital: professional practice case studies

Norway, Croatia and Italy - or rather Calabria. The close relationship between Design and Natural Capital finds - in the experiences reported in the following paragraphs - examples of best practices by contemporary approaches and great communication impact. If on one hand, the European cases highlight how the institutions, appointed to manage the Natural Capital, have felt the need to give an unique and coordinated identity to the system of national parks, elaborating a truly sophisticated project demand addressed to high quality design and communication studios - on the other hand - the Calabrian case shows how the contribution of a single actor - visionary - can set in motion an effective and territorial strategy - Design-Driven - for the promotion of a territory so full of riches as well as requesting tools and methods of communication.

The first project, the iconic-photographic visual identity of Norway's National Parks - designed by Snøhetta - has matured in a mature and receptive cultural environment - which is northern Europe - that has always shown great sensitivity for

a careful management of intelligent conservation and last but not least extensive enhancement.

The second, the pictogram-signalling project of the Parks of Croatia, was developed in a young nation - Croatia - projected towards an economic development project that starts from its own resources - Tourism, Nature, History - combined with an important tradition in visual culture, deriving from the important history of graphic's propaganda.

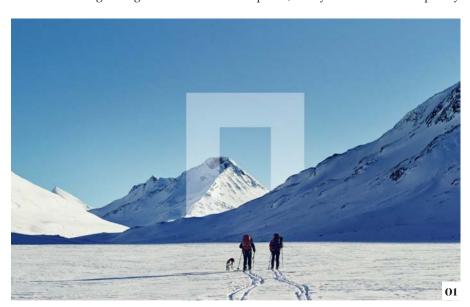
The third, the dynamic-territorial system of the Greek Calabria Cultural Park, developed by Gennaro di Cello and Francesco Falvo D'urso - better known for the innovation incentive agency Entopan - and strongly backed by Salvatore Orlando president of the GAL², has the ambition to constitute the Cultural Project of the Calabrian Grecanico Area, through an entire design system based on a careful analysis, codification, and interpretation of the sign and iconic heritage that has stratified over the centuries in the region.

• Norway's National Park

In 2015, the Norwegian Environment Agency, in the desire to establish an unifying identity superstructure of the vast naturalistic realities of the territory (Frearson, 2015), entrusts the Snøhetta Design Studio the role of project architects of this act with economic and political implications. The challenge of the Swedish studio: to put the 44 national parks into a system, through a common but at the same time non-trivial identity (Domus, 2015).

The analysis of the typical characteristic of the Norwegian territory - dominated by the contrasts between cultivated and urbanized world and natural world - flows into an iconic and dry proposal in perfect connection with the Scandinavian philosophies: a portal in which rigid and urban signs coexist, with gentler signs, natural and typical of nature. The idea - as we read within the profile of the designers - is that of an entrance sign of a transition between two dimensions: the crossing between cultivated and natural. The new visual identity is therefore a connective element between the apparent rigidity of the Nordic landscape and the warm hospitality of this people. The sobriety of the character - Calibre³ - a neo-grotesque designed by Klim Type Foundry and inspired by Aldo Novarese's rationalist Recta, is particularly suitable as a kit in terms of clarity for the numerous applications: from flyers, brochures, wayfinding up to digital supports.

The graphic coordinate is developed through an experiential story through images. The typical snow mountain landscape of Norway is in contrast with clear blue skies. In fact, white dominates in all its shades, contrasting with the blue sky and some shades of moss green. Scandinavia's rationalist-organicist design tradition finds in its essential sign of a geometric and abstract portal, a very successful contemporary



O1Example of the visual identity of Norway's National Park (credits: Snøhetta Design Studio, 2015).

synthesis that reaches its iconic strength precisely through contrast with the softness of the natural landscape.

• Park of Croatia

A contemporary of the Norwegian project, Parks of Croatia is the result of the political will of Michael Zmajlović, Minister of Environment and Nature in 2015, who - during the presentation of the project - stated: "Preserved nature and biodiversity are certainly our huge potential. We should be proud of this wealth, but we also have the obligation to convert this potential into economic growth and development that is sustainable in the long term and respectful of nature."

The Croatian Natural Capital has 8 national parks combined with 11 nature reserves which, through the strategic action of design, become a real unified network, amplifying the offer of individuals through new forms of promotion and relative presence on the territory and online. At a strategic level, the Croatian parks' brand shares similar solutions already widely seen - particularly convincing - in the context of dynamic branding (Anceschi, Chiappini, 2006) from the Melbourne identity project, passing through è Bologna of the Emilian city. Therefore, designing a visual identity as a system - or alphabet - composed of parental elements - united by the same graphic language structures - in which diversification is the reasoned result of the project.

The concept is based on an interesting use of the pictogrammatic language, which is associated with refined typographic and chromatic choices with a strong signaling character. The individual parks' features become figurative elements recognizable throughout the visual identity system. Biodiversity - in terms of both fauna and flora - after a careful analysis, become the interpretative keys of the individual Croatian realities. We then move on to the new interpretation of the Lika Bear - emblem of the Plitvice lakes - passing through the Krka waterfalls, the Welsh Velebit, of Kopački's Aquila rogues.



02

The design system designed for the different Parks of Croatia (credits: Minister of Environment and Nature of Croatia, 2014)

• Greek Calabria Cultural Park

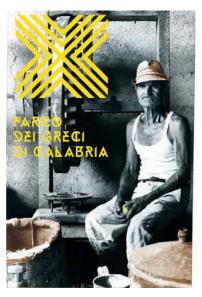
Alongside the Up-Down development processes seen in the previous cases, the project of the Greek Calabria Cultural Park, is clearly inserted in the virtuous circle of Bottom-Up processes, through the work of the GAL association of the Grecanica Area, which through the use of Design, wanted to provide all the operations related to its own development activities on the territory with a qualified and coordinated system.

The geographical area in which the new diffused park develops is the theatre of a stratified system of visual signs and a wider and more extensive cultural humus, of which echoes and traces of the wider visual culture of the Mediterranean can be seen today, i.e. Calabrian region. The vastness and specificity of the different signs have prompted designers to read the project as a real visual alphabet - a form of visual metalanguage - capable of communicating the richness and history of the territory.

The visual alphabet produced is the result of research on field with a view to reinterpreting the iconic elements by patterns and decorative elements capable of becoming the founding elements of the new language, with whom to connote the communicative apparatus connected to the macro topic of tourism, culture, food and wine, craftsmanship. Language innovation can be seen in the open nature of the alphabet, as it is not a rigid but flexible structure, ready to welcome upgrades from future research, in-depth studies and workshops.

The visual identity is accompanied by powerful territorial and legal typographical choices to the region's past - a Mediterranean flavour that evokes the Greek past. The entire visual typographical apparatus is, in fact, developed byNeptune⁴ font - designed by Type Designer David Massara - with regard to the titles, and Morden⁵ font - by Andrea Buttieri, for subtitling.







03Example of dynamic flyer used for the Greek Calabria Cultural Park (credits: Entopam, 2015)

3. When Design meets Natural Capital: didactic practice case studies

The awareness acquired by the authors of the existence of a large demand for a latent project in the context of natural parks and protected areas, and therefore of Natural Capital, led to stimulate the interest of young Sapienza University design students in developing identity, wayfinding and infrastructure's projects for parks.

From these activities – CNAAPP⁶ master course, thesis labs, etc. - numerous projects have emerged. Through a careful reading of the places, an in-depth analysis of the different ecosystems, the naturalistic and architectural emergencies of the parks, and the integration of new technologies, they have proposed original solutions that espouse ethical and cultural objectives such as those of preservation and protection of the Natural Heritage also embracing aims of valorisation and promotion of the territory.

An element that unites the three identity projects is the dynamic and changeable nature of the proposed solutions, pursued through the use of parametric graphics; a character that on one hand may appear to be a child of its own time, that is, a mature digital revolution (Baricco, 2018), on the other it welcomes and interprets one of nature's existential conditions: mutability.

• The visual identity of the Castelli Romani Park

The Castelli Romani Park is characterized by the presence of numerous ecosystems - hilly, volcanic, lake, woodland, etc. - and of multiple anthropic systems - archaeological ruins, architectural emergencies, historical housing fabrics, etc.The gen-

erative identity project stems from a playful suggestion, from a game known in the universal childhood imagination: unite the dots or points and lines - dots and boxes, a game in which the pre-ordered union of dots generates figures .

The dynamic logo proposed for the Castelli Romani Park traces its origin from reading and placement of the various systems around what appears to be a large orographic matrix: the extinct volcano of the Albani mountains. It is no coincidence that the circularity of the crater has determined the disposition of both ecosystems and anthroposystems.

From here the almost natural definition of coloured lines able to connect in free but closed forms, almost scribbles, the coloured dots assigned in the map to the different subsystems. The result is a set of apparently gestural signs, free traces, representative of the different systems - the paths (red), the archaeological sites (orange), the panoramic points (yellow), the lakes, the wood and the meadows (green), the borghi (blue). By a variable parametric logic, all these elements are associated to some parameters including: number of site visitors, air quality, humidity, wind intensity, solar radiation - silent appearance at different times of day and in the different sea-



04
Dynamic identity Castelli Romani
Park (credits: S. Bianchi, 2019)

sons. A living mirror identity is an organism as alive and changeable as the park is. Finally, the project suggested the association between subsystems and claims capable of connotating them: breathe, walk, explore, discover, admire, live.

• The visual identity of the Nomentum Park

Nomentum, from the name of an ancient Latin-Sabine city on the outskirts of Rome, is a provincial relevance protected area with particular orographic and naturalistic features. There are forest and herbaceous plant communities linked to the hydrographic network and alluvial substrate. It is an important bioclimatic transition area. Unlike other parks in Lazio it is of more recent constitution, for which it is not very known and attracts a public of proximity.

05Logo of Nomentum Park (credits: F. Mininni, 2019).

The park offers some perfectly integrated infrastructures for the performance of various sports, from fitness, jogging and mountain biking. The hypothesis of the project developed foresees a variable "container logo", a doodle. Every single letter of the word NOMENTUM in the Gotham⁷ Bold



05

typeface becomes a container filled from time to time with images that refer to the characteristics of the fauna and flora park - amphibians, birds, berries, etc. - and to the different activities that inside the park - Jogging, Mountainbike, etc. - can be carried out. The images in some cases corrupt the perimeter of the letters, the frame, temporally differentiating the logo but without compromising its legibility. The image loading process is fed by the users who can send their images of the park in a sort of social activity and managed by an algorithm that sorts them by theme and morphology, placing them in the letter spaces.

• The visual identity of the Nazzano Tevere Farfa Natural Reserve

Nazzano Tevere Farfa is the first natural reserve established by the Lazio Region more than forty years ago, following the construction of a dam in the area near the capital, where the Farfa river flows into the Tiber. The park is therefore configured as a wetland, offering itself as an ideal habitat for numerous fauna and flora species

The changing relationship between the dry land and the level of water given by the floods of the two rivers involved, represents one of

> the fundamental perceived characteristics of the natural reserve from which the project took its cue.

> The identity project proposed for Nazzano Tevere Farfa, started from a different definition of the reserve

05 that covers and / or uncovers the names of the two riv-

name hierarchy, assigning a primary role to the names of the two rivers: TEVERE / FARFA, written in capital letters in Ralewey Black⁸ typeface. Alternatively, an algorithm was given the task of holding together the binomial in a dynamic configuration centered on a mobile oblique line. The variable level of water in the park, constantly monitored by sensors, is in fact parametrically translated into a visual reason, a sort of line / bar

ers, as if it were a backwash digital. The park user, through the mediation of the dynamic identity and of the devices that interface it, is thus introduced into the changing existential condition of the park.



Logo of Nomentum Park (credits: F. Mininni, 2019).

Conclusions

For a long time, due to standardization and globalization, stylistic languages have ended up flattening the rigid habits. However, the entry into the field of new scenarios opens up new possibilities for visual design, because, according to Bollini (2017, p.100): "The search for roots and rejection of standardization produce an original mix of backward expressive elements and innovative way to use the technology [...]. The exploration assumes new eyes and perspectives to see the existing context, deny it and rebuilt according to a new sensibility and a new freedom."

The new scenarios of application of the design applied to the Natural Capital can activate virtuous short-circuits able to bring innovation both to the final user and to the discipline itself, because the art of the mixite is one of the hardest skills of the design approach. The cases - previously shown - have highlighted the role of the design project as a system, appropriating an exquisitely strategic role. The need for design project exhibited by the political actors of the Natural Capital becomes an occasion for Design - especially the graphic one - to question itself also in terms of expressive language. In agreement with Martino (2012), the way in which the contamination of different cultures with other artistic traditions and with different knowledge is being implemented today is certainly new: a modality based on a mutual recognition and with a consequent support of otherness. That is the path that visual design project could take in the future.

Notes

- 1. In latin language, Designare means to designate,
- 2. GAL: Gruppo di Azione Locale. It can be translated in Local Action Group, a programming tool that brings together all the potential development actors (such as trade unions, employers' associations, companies, municipalities, etc.) in the definition of a "concerted" policy.
- 3. Calibre typeface. Available on: https://klim.co.nz/retail-fonts/calibre/
- 4. Neptune typeface. Available on: https://www.behance.net/gallery/17625495/Neptune-Free-Font
- 5. Morden typeface. Available on: https://www.behance.net/gallery/9600469/Morden-Free-Font
- 6. The CNAAPP Master Course, Natural Capital and Protected Areas was established in 2017 by Sapienza University of Rome PDTA department, Planning, Design and Technology of Architecture, in agreement with the Ministry of the Environment, the Lazio Region Department of Environment and numerous national and regional park authorities. Carlo Martino is the coordinator of the Design module.
- 7. Gotham Typeface. Available on: https://www.typography.com/fonts/gotham/styles
- 8. Raleway Typeface. Available on: https://fonts.google.com/specimen/Raleway

References

- Anceschi G., Chiappini, C., (2006). Hard, Soft e Smart: gli stili registici dell'identity design. Progetto Grafico, n.9
- Anceschi G., (1987) Retorica verbo-figurale e registica visiva. AA.VV., Le ragioni della retorica. Mucchi Editore, Modena
- 3. Baricco, A., (2018) The Game. Giulio Einaudi, Turin
- 4. Baule, G., Caratti, E., (2016). Design è Traduzione. Il paradigma traduttivo per la cultura del progetto. "Design e Traduzione": un manifesto. Franco Angeli Edizioni, Milan
- 5. Bollini, L., (2004). Registica Multimodale: il design dei New Media. CLUP, Milan
- 6. Bollini, L. (2017). Beautiful interfaces. From user experience to user interface design. The Design Journal, 20
- Domus, (2015). Snøhetta national park. Retrieved from: https://www.domusweb.it/en/news/2015/04/17/ norway_s_national_park_s_sn_hetta.html
- 8. Frearson, A., (2015). Snøhetta designs new visual identity for Norway's national parks. Retrieved from: https://www.dezeen.com/2015/04/16/snohetta-designs-new-visual-identity-norway-national-parks-graphic-design-branding/
- Global Footprint Network, (2019). Earth Overshoot Day 2018 is August 1, the earliest date since ecological overshoot started in the early 1970s. Retrieved from: https://www.footprintnetwork.org/2018/06/13/earth-overshoot-day-2018-is-august-1-the-earliest-date-since-ecological-overshootstarted-in-the-early-1970s/
- Konaxis, I., (2018). Paesaggi culturali ed ecoturismo Cultural landscapes and ecotourism, Franco Angeli Edizioni. Milan
- Italian Ministry of the Environment, (2016). Capitale Naturale e servizi ecostistemi. Retrieved from: https://www.minambiente.it/pagina/capitalenaturale- e-servizi-ecosistemici
- 12. Martino, C., (2012). Design, verso una riscoperta della cultura materiale. Op.Cit., selezione della critica contemporanea, 143. Edizioni Electa, Naples
- 13. Sinni, G., (2018) Una, nessuna, centomila. L'identità pubblica da logo a piattaforma. Quodlibet, Macerata
- 14. Schumacher, E. F. (1973). Small is Beautiful. Economics as if people mattered. Blond & Briggs, London