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## Cultural Landscape and cultural routes: infrastructure role and indigenous knowledge for a sustainable development of inland areas

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### Abstract

Cultural Routes and Cultural Landscapes have now been assumed as key elements in the panorama of cultural tourism, because they can combine, in one place, various aspects desired by tourists: contact with nature, identity and intangible heritage, knowledge and local production, etc. This paper analyses a territory in the province of Reggio Calabria that fulfills the cultural route and cultural landscape criteria: it has inside a big abandoned infrastructure, which could become a driving force for sustainable development of inland areas.

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### 1. Introduction

There is no future in a place without enhancement of the past. In recent decades this was the main theme of all restoration works, cultural heritage nowadays has an economic and strategic importance to be used for local development.

The development of an area should start from local resources and Calabria has an architectural, environment and cultural heritage of inestimable value: it consists of typical old towns perched high in the mountains, camouflaged

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by the landscape, in close contact with the rivers.

These territories, now in a degraded state and very often abandoned, should be understood not only as a place to “use” but as an opportunity for discovering, understanding and researching about cultural identity. On the one hand they can enable us to recover the memory of the past, and on the other hand to build new visible perspectives, “drawn” from the territory.

Heritage should be conceived as a resource from which to promote economic and social development of an area. This allows to start a process of recovery and upgrading work-oriented “re-use” of the existing goods, respecting the semantic value of the sites (Calabrò F., Della Spina L., 2014 a).

## **2. Definition of Cultural Landscape and Cultural Routes**

Specifically in relation to huge, tangible and intangible, heritage, in recent years many development projects, especially in the inland areas, started with recognition of the Cultural Landscape and from the identification of Cultural Routes.

Cultural landscapes, as defined by the World Heritage Committee, are produced by long-term interactions between humans and nature in indigenous societies (UNESCO, 2015). In addition, Cultural Landscapes result from consecutive reorganizations of the land by indigenous peoples in order to better adapt the land’s uses and spatial structures to meet the changing of society demands. They have been recognized as multifunctional landscapes that provide a multitude of services that benefit people: provisioning goods and products, regulating and supporting local resources, improving cultural services, etc. As a result, cultural landscapes have been highlighted for their importance in rebuilding a society that is in better harmony with nature.

Therefore, cultural landscapes were added to the UNESCO world heritage site system in 1992, with the following definition: Cultural landscapes are cultural properties and represent the “combined works of nature and man. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and successive social, economic and cultural forces, both external and internal.” (UNESCO, 2015)

Over the years, together with deepening the concept of cultural landscape, when the Pilgrim's Route to Santiago de Compostela was added in 1987 to the “Cultural Routes of Europe and in Cartagena in 1993 to the World Heritage list, UNESCO announced its intention of bringing together experts to discuss the question of “cultural routes” in more depth.

Cultural Routes “represent interactive, dynamic, and evolving processes of human intercultural links that reflect the rich diversity of the contributions of different peoples to cultural heritage” (CIIC, 2008). The cultural routes demonstrate, by means of a journey through space and time, how the heritage of different countries and cultures contribute to a shared and living cultural heritage.

The ICOMOS International Scientific Committee of Cultural Routes (CIIC) by the 16th General Assembly of ICOMOS in Quebec (Canada), October 4, 2008, has ratified the ICOMOS Charter of Cultural Routes. “This concept introduces a model for a new ethics of conservation that considers these values as a common heritage that goes beyond national borders, and which requires joint efforts” (Calabrò F. et al., 2015).

“The innovation introduced by the concept of “Cultural Routes” reveals the heritage content of a specific phenomenon of human mobility and exchange that developed via communication routes that facilitated their flow and which were used or deliberately served a concrete and peculiar purpose” (CIIC, 2008).

Recently, the disappearance of cultural landscapes or negative changes in these landscapes worldwide, has become a concern among scientific and social researchers: these problems have arisen from driving forces such as land abandonment, tourism development, agricultural intensification, afforestation and urbanization. They have focused on safeguarding and managing agricultural landscapes created by local peoples, and mention the importance of indigenous (ecological) knowledge in maintaining specific outstanding landscapes.

In fact, the indigenous or local people who have produced and maintained their cultural heritage, related to these landscapes and all their knowledge systems results from centuries of local adaptation of the environment or from agricultural practices to meet their needs and to manage resources in particular about their management of water, forest, and soil resources. In other words, indigenous (ecological) knowledge represents the survival of proven adaptive management systems that can be used for the protection of endangered (agri-)cultural landscapes (Calabrò F., Della Spina L., 2014 b).

### 3. The case study

Calabria, a region that faces with over 700 km of coastline on the Mediterranean Sea, because of its geographical position, has been a place of transit and destination in many historic routes. These historic routes have involved the Mediterranean countries, the effects are still visible in its social, urban and natural structures, giving the region a large number of cultural and environmental values, such as to allow the configuration of a cultural Route according to “ICOMOS Charter of cultural Routes”.

In fact the region was, for many centuries, a place of conquest and a land of refuge for groups of different cultures and religions, coming from different Mediterranean areas for economic, religious or military reasons, shaping a cultural stratification of exceptional interest.

Specifically, starting from the Seventh to the eight centuries the coasts of the province of Reggio Calabria have been affected by migration flow and it has all the features to be included in the Cultural Routes criteria with a historical itinerary linked to the Eastern monasticism. This migration flow marked Calabria, which still has many signs and “monuments” (with the etymological meaning of memory-evidence) related to Greek monks. The territory, located in an inland area, combined with the complex topography of its mountain areas, presents internationally recognized beauty, with panoramic viewpoints overlooking the sea, known as Costa Viola, that has not been sufficiently exploited from a tourism point of view.

The territory is also characterized by particular cultivations, realized in the typical local farming terrace. These productions, which have remained unchanged, have allowed a stratification of knowledge and the preservation of biodiversity and agricultural landscapes. They played an important role in reducing the instability of the territory.

The movement of the monks of eastern origin can then be identified as cultural route as they “represents an interactive, dynamic, and evolving processes of human intercultural links that reflect the rich diversity of the contributions of different peoples to cultural heritage” (CIIC, 2008). The cultural heritage of this cultural route is able to emphasize the importance of cultural exchange between peoples, and to amplify the historical events that really have characterized a specific area, just as in the case of the phenomenon of eastern monasticism in the West, especially in southern Italy. The influence of the culture of the eastern monks in Southern Italy is not limited to factors of a spiritual nature, but it contributed in a decisive way to the transmission of the Greek and Byzantine culture already present in the roots of Magna Graecia: this Byzantine culture allowed the region to become, for some centuries, the cultural reference point in Italy (Calabrò F. et al., 2015) (Campolo D. et al., 2015, a).

### 4. The infrastructure of the Calabro-Lucane railways

This territory has also a large infrastructure: the Calabro-Lucane railways, were designed in the first decade of the 1900s and built with narrow gauge in a period between 1910 and 1934. This railway was to be used to connect the coastal towns with the inland areas of Calabria and Basilicata; to meet local transport demand, with a total distance of 764.864 kilometers.

After several historical events the Calabro-Lucane railways become Raylways of Calabria. In the province of Reggio Calabria (Fig. 1) two lines were built: Gioia Tauro-Cinquefrondi (Km. 32) and Gioia Tauro-Sinopoli (Km. 26). In particular the line of Gioia Tauro-Sinopoli was reduced in size in 1994 and finally closed in 2011, crossed an area with a natural and cultural heritage of particular interest, closely linked to the local economy.

The idea of the railways enhancement project was born not with the intention to hide an infrastructure in a complete state of neglect, which has now become useless and unproductive, but with the intent to promote a railroad that has entered in the identity of local communities and which holds a special beauty in its contrast between the engineering solutions of steel bridges and tunnels in stones and bricks; these structures were made in the early twentieth century in an area with uncontaminated nature and in a territory dedicated to agriculture and the use of local resources.

The main aim of the recovery project is the re-appropriation by the community of its tangible and intangible cultural heritage and identity in order to promote, to encourage and to support sustainable processes of endogenous growth and to improve the quality of life in rural areas (Campolo D. et al., 2015, b).

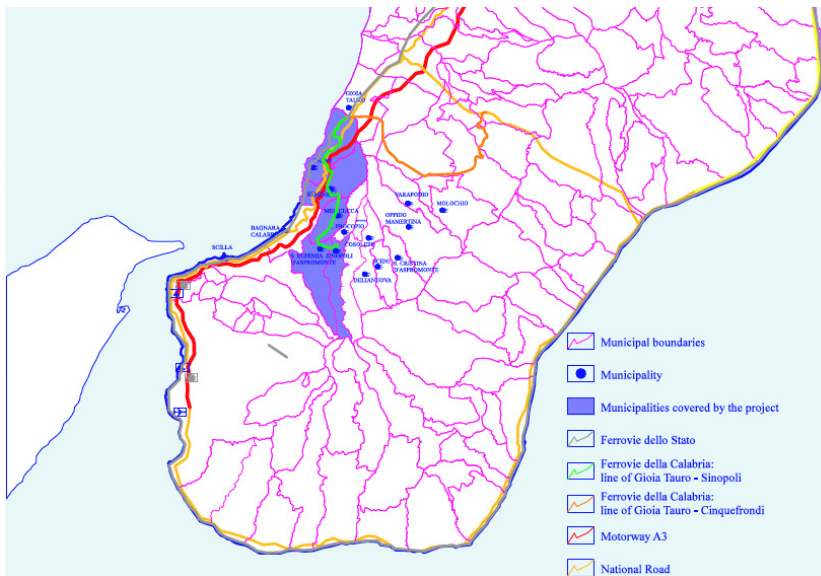


Fig. 1. Raylways of Calabria.

## 5. Slow tourism: methodological approach

The railway infrastructure should be re-used and transformed into a driving force for the sustainable development of inland areas. It is necessary to give it a catalysing role not only for local people but also for tourists, because the increasing attention to the greening is involving all sectors, including tourism.

Today tourists are closer to the community, they visit a place as a tourist and try to make only a positive impact on the environment, society and economy; they look for environmentally friendly structures and products; they like tasting typical “zero kilometre” food. A new growing sector of tourism is linked to natural and cultural heritage; it is named “slow tourism”. “Slow tourism” is a new philosophy of travel that aims to promote a leisurely and quality tourism in contrast to a fast consumer tourism.

This type of tourism is based on long-term vision and good relations with local communities as well as respect for the environment and its protection. The quality of travelling responds to the concept of relaxation, deep understanding and knowledge of the territory.

Tour operators, for their role in the tourism industry, together with local communities and public institutions, must be the main players who are motivated to implement marketing strategies based on sustainability principles.

Slow tourism is an approach to a different tourism. It assumes importance in the knowledge dimension related to six aims: the interactions with the host community (contamination), the enhancement of the specificity of places (authenticity), the minimization of the impact on the environment (sustainability), the improvement of quality of life (time), a preference for non-frenetic places (slow), involving in the multi-sensory experience (sensation).

## 6. Abandoned railways and greenways

The line of the Gioia Tauro-Sinopoli railways, now almost completely disused, in the same way as 6000 km of railway lines in other parts of Italy, is an important heritage that runs through the area and it can link the inland areas, made up of villages and rural villages, with cities or coasts. The trail crosses places of indescribable beauty from a naturalistic point of view and this natural corridor highlights engineering structures of excellent workmanship (bridges, viaducts, tunnels, stations and rail inspector’s houses). This is an important patrimony that should be strongly protected and preserved in its integrity in both cases: a green trail with the aim to discover and develop the territory and a reconverted railroad with a touristic or environmental use (Toccolini A., 2004).

The old way of the train could be converted into a greenway, a term used to identify a scenic road with

recreational use, a linear open space. “It is a natural or landscaped course for pedestrian or bicycle passage; an open-space connector linking parks, nature reserves, cultural features, or historic sites with each other and with populated areas” (Turner T., 1998).

In Europe the greenway definition has been further enriched by the explanation: “the system of routes dedicated to non-motorized traffic, able to connect people with local resources (natural, agricultural, panoramic, historical and cultural) and the centres of life of urban settlements, both in cities and in rural areas” (Ahern J., 1996) and by the declaration of Lille (2000): “Communication routes reserved exclusively for non-motorised journeys, developed in an integrated manner which enhance both the environment and quality of life in the surrounding area.” These routes can be used by the local population as a complement to the traditional mobility system.

Globally, despite the diversity of the different approaches, the greenways are still characterized by some essential elements:

- Linear spatial configuration;
- Exclusion of motorized vehicles;
- Multi-functionality, that is the accessibility by different types of users: it can be usable for different purposes, even if one function may prevail over the others;
- The idea of movement and “slow mobility”.

The different approaches can be divided into following types:

- Ecological value: with a major environmental significance, with the aim to conserve biodiversity and provide corridors for the movement and spread of flora and fauna.
- Recreational value: formed by trails and picnic areas for recreation and leisure
- Cultural and historic value: with the main objective of linking the elements of historical and cultural interest in the territory.

## 7. The project and the development strategies

The project aims to intervene strategically activating synergies to build a unique network of tourist destinations, with individual features and attractions. All these values linked in a network will increase the attractiveness of the local demand but, above all, will increase the multiplier effect related to the economic benefits because of a strategic and innovative combination of actions: the actions will aim to develop tourism, to stimulate and promote local productions.

Specifically, the project starts with issues and products as: nature, environment, cultural heritage, local products and landscapes, facilitating access, use and communication, through a different mobility and accessibility. All is integrated with interventions under the new Regional Operational Programme 2014-2020.

The strategy includes the following essential aspects:

- The creation of a network of tourist destinations in municipalities crossed by the train rails: this network will link the excellence known in national and international markets with the new tourist destinations, in order to articulate and complete existing destinations. The network will increase differentiation in the tourist sector with the promotion of inland areas and mountains, food and wine and historical and religious resources;
- The creation of an integrated tourist offer.

The project aims to enable a development strategy, which starts from the potential of the area and the creation of new skills and professionalism in order to network and promote local actors, services and peculiarities of each municipality, crossed by Railway of Calabria, with the goal to produce: tourism offers, economic and “slow” integrated mobility, quality and responsive services, not only to meet the needs of tourists but also of the population.

In the last few years, contemporary interest in the ecological role of indigenous peoples who live in vulnerable or environmentally sensitive regions, such as mountainous areas, can contribute greatly to the modern management of local ecosystems and landscapes; to the conservation of biodiversity; to the improvement of environmental risk or impact assessments; and to the development of locally valid models for sustainable living.

The goal of the project is to create a cultural route, with the intent to promote training and dissemination of the know-how related to territorial resources; to enhance and to promote the cultural heritage and the identity of the area; to use technology based on communication. The Cultural Route allows to find competitive solutions to integrate tourism and culture with business and market, ensuring an integrated and innovative approach; it enables the re-invention of new correspondences between the territory and the community.

This new approach ensures the development of a territorial strategy that takes into account local and global competition, allowing the community to renew the know-how to adapt to globalization changes without losing specificity and identity.

Sustainable development is possible only by combining and creating interaction between cultural identities and environmental vocations, taking into account the existing economy. Usually the economy of inland areas is responsive to local resources and the needs of the indigenous community, which will have accumulated knowledge and skills in the exploitation of these resources: local development is based on the improvement of skills already rooted in the territory, in which local stakeholders have become protagonists in the government of the territory starting from the identity of land resources, through a joint effort of all local stakeholders.

## 8. Conclusions

For many years tourism, with connected goods and services, is recognized as one of the major instruments in the economic development of the territory. In 2013 at European level the tourism sector has been the only growth industry despite the crisis, with a significant increase in demand: “38% of European citizens have spent their holidays outside their country of origin, but always in an EU country, with the increase of 5% over to 2012” (Commissione Europea, 2014).

Studies on tourism trends highlight on the one hand the rapid increase in both production and consumption of cultural attractions, whilst on the other hand that tourism activities will be directed towards an ageing and educated population who will require forms of ecotourism, of cultural travel and relaxation. Therefore tourism will expand with a trend towards forms of “slow tourism”, with art, culture and the environment at the center of interest.

Starting from this data, the explained case study highlights how the transformation of the railway project is able to create competitive and innovative interactions and synergistic links in the area's resources; it can build a solid network for program enhancement and promotion activities through the “eco-museum”, a museum focused on the identity of a place, largely based on local participation and aiming to enhance the welfare and development of local communities (Campolo D. et al., 2015 b).

In this way the project is able to develop tourism and to promote typical local products, in line with the principles of sustainable development. It allows for the combination of the demands of economic growth with those of preserving the environmental heritage, of enhancing the tangible and intangible heritage, and of improving the quality of life of its inhabitants (Viglianisi A. , 2014).

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## References

- Calabrò F., Della Spina L., (2014a), “The cultural and environmental resources for sustainable development of rural areas in economically disadvantaged contexts. Economic-appraisals issues of a model of management for the valorisation of public assets”. In *3rd International Conference on Energy, Environment and Sustainable Development (EESD 2013)*. *Advanced Materials Research* Vols. 869-870, pp 43-48 © (2014) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/AMR.869-870.43. Cod.SCOPUS 2-s2.0-84891707349-Cod WOS:000339125800007
- UNESCO (2015), *Operational Guidelines for the Implementation of the World Heritage Convention*, UNESCO World Heritage Centre. Paris. 8 July 2015.
- International Scientific Committee on Cultural Routes (CIIC) of ICOMOS (2008), *The ICOMOS Charter on Cultural Routes*, ratified by the 16th General Assembly of ICOMOS, Quebec (Canada), on 4 October 2008.
- Calabrò F., Della Spina L., (2014b), “The public-private partnerships in buildings regeneration: a model appraisal of the benefits and for land value capture”. In *5th International Engineering Conference 2014 (KKU-IENC 2014)*. *Advanced Materials Research*, Vols. 931- 932 pp 555-559 © (2014) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/AMR.931-932.555. Cod. SCOPUS 2-s2.0-84901500491
- Calabrò F. e altri (2015), “Evaluating Cultural Routes for a Network of Competitive Cities in the Mediterranean Sea: the Eastern Monasticism in Western Mediterranean Area” in *AMR* Vols. 1073-1076, 2015, pp. 1418-1422.

- Campolo D., Schiariti C., Tramontana C. (2015 a), "To the origin of humanism: a cultural route for a competitive network of mediterranean cities" in *LaborEst Città Metropolitane e Aree interne*, 2015 n.9 pag. 9-13.
- Campolo D. e altri (2015 b), "The Lexicographical Method To The Appraise Of The Greenway Of Ferrovie Della Calabria" in *LaborEst Città Metropolitane e Aree interne*, 2015 n. 10
- Toccolini A. (2004), "Prefazione" in Rovelli R., Senes G., Fumagalli N., *Ferrovie dismesse e greenways*, Associazione italiana greenways, Milano.
- Turner T. (1998), *Landscape planning and environmental impact design*, UCL Press, London.
- Ahern J. (1996), *Greenways: the beginning of an International movement*, Elsevier, Amsterdam.
- Commissione Europea (2014), *Comunicato Stampa*, gennaio 2014.
- Viglianisi A. (2014), "A Program for the Development of the Metropolitan City of Reggio Calabria - Preliminary Issues". In *Advanced Engineering Forum*, Vol. 11 (2014) pp 177-186 © (2014) Trans Tech Publications, Switzerland doi: 10.4028/www.scientific.net/AEF.11.177 (CM)