



# Rural heritage and its perception by the local community: A participatory approach in the Ligurian Apennines (Italy)

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## Abstract

Europe's upland rural heritage results from interactions between environmental, spatial, and socio-cultural factors, with local communities playing a key role in maintaining and transmitting knowledge and practices. However, current land-use policies and heritage strategies often overlook local contributions, while participatory and geospatial approaches remain marginal in decision-making. This study explores how rural heritage is perceived across age groups – from primary school children to adults – in selected Inner Areas of the Ligurian Apennines (Italy). Using a participatory mapping methodology developed with local schools, tangible and intangible heritage, place-based knowledge, and everyday practices were documented. The data were analysed through GIS-based spatial methods, enabling comparisons across age, remoteness, and connectivity. Results show clear differences: younger participants mainly identify places of socialization and leisure, while adults recognize more diverse and spatially dispersed elements, combining physical features with intangible meanings. Remote municipalities display a higher concentration of sites linked to active rural practices, indicating stronger continuity of living heritage, whereas less remote areas frame heritage through episodic experiences. By integrating participatory mapping and spatial analysis, the study redefines rural heritage as a dynamic, multi-layered system shaped by continuity and change, highlighting the need to include local perceptions in conservation and development strategies.

**Keywords:** Participatory Mapping, Rural Heritage, Landscape

## 1. Introduction

European landscapes are widely understood as cultural landscapes shaped by centuries of interaction between human activity and the natural environment (Antrop, 2004). Their tangible and intangible traces are framed within a heritage discourse emphasizing conservation

and safeguarding values for future generations. Europe – and Italy in particular – hosts the highest concentration of UNESCO-designated Cultural and Natural Heritage sites worldwide. Since 1992, UNESCO has recognised landscapes as the “combined works of nature and of man”, reflecting the long-term evolution

of societies under environmental and socio-cultural constraints (UNESCO Convention, Art. 1). However, UNESCO still prioritises sites with Outstanding Universal Value (OUV), privileging exceptional or monumental landscapes (Gullino and Larcher, 2013). Academic research increasingly advocates for broader interpretations that encompass ordinary, lived, and working landscapes shaped by long-term practices, local knowledge, and social relations (Carvalho et al., 2023).

The European Landscape Convention (ELC) on the other hand, introduced an inclusive understanding of landscape as “a part of the land, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors” (Council of Europe, 2000). This definition recognises all landscapes – remarkable, ordinary, and degraded – as meaningful expressions of nature-culture interrelationships, stimulating research that views landscapes as dynamic socio-ecological systems shaped by human practices, perceptions, and values (Blandford, 2006; Bohnet et al., 2022; Rawluk et al., 2017). The ELC thus provides a normative basis for recognising ordinary rural landscapes as legitimate objects of conservation and planning.

Building on this, the Council of Europe Conference of Ministers responsible for Spatial/Regional Planning (CEMAT, 2003) emphasises participatory observation and interpretation of rural heritage. The European Rural Heritage Observation Guide highlights the need for local residents, associations, and stakeholders to contribute actively to heritage identification and management, framing rural heritage as a living, evolving resource linked to territorial development, governance, and community engagement. This reinforces a shift from expert-led identification toward shared observation and collective interpretation aligned with sustainable development objectives.

The cultural and heritage dimensions of landscapes are also addressed through Cultural Ecosystem Services (CES), which capture non-material benefits such as recreation, education, spiritual enrichment, and mental well-being (Millennium Ecosystem Assessment, 2005). Recent research refines the conceptual and

methodological scope of CES, underlining their relevance for governance and planning (Dossche et al., 2022; Madau et al., 2022; Kostanjšek and Golobič, 2023). Perception-based studies further highlight the importance of involving local communities in landscape decision-making (Wauthy, 2019; Piva, 2020; Csurgó and Smith, 2021; Ivona, 2021; Santoro et al., 2021).

Despite these advances, participatory approaches and community knowledge remain poorly integrated into planning and management. Inventories are largely expert-driven, participation is often limited to isolated stages, and authority is concentrated among institutional actors, leaving community roles in governance, partnerships, and long-term management insufficiently defined. Upland landscapes in Europe exemplify the complexity of living rural heritage, representing a rich legacy shaped by millennia of human-environment interaction. While local communities play a crucial role in maintaining these landscapes through active use, contemporary conservation strategies and land-use policies often overlook their historical depth and undervalue the knowledge and practices of local practitioners (Barrientos et al., 2021).

At the same time, those upland landscapes are increasingly exposed to depopulation, land abandonment, loss of traditional skills, climate change, and broader socio-economic transformations. The IRIS (Inspiring Rural Heritage) project responds to these challenges by promoting new approaches to the conservation and sustainable use of upland landscapes grounded in community engagement and “protection through use”.

This paper focuses on traditional rural areas with long historical trajectories, which constitute a central subject of cultural geography research and the World Heritage system (Fowler, 2003). As lived-in landscapes, rural areas are continuously reshaped through interactions among people, animals, vegetation, and built structures (Cevasco, 2013; Du and Shi, 2019; Liu et al., 2019). The concept of living rural heritage captures the intersection of cultural, environmental, and social processes, offering an operational framework for conservation, valorisation, and sustainable development.

The study is situated in Italy's Inner Areas, predominantly mountainous and rural territories characterized by demographic decline, ageing populations, limited access to essential services, and economic marginalization (SNAI, 2012; Bertolino and Corrado, 2017; Macchi Jànica and Palumbo, 2019). Frequently framed as marginal or peripheral in policy and public discourse, these territories are nonetheless living landscapes inhabited by communities and endowed with significant natural, cultural, social, and historical heritage (De Vecchis, 1992; Bernardi et al., 1994). Previous research has shown that negative trends can be mitigated through development pathways rooted in the recovery, conservation, and sustainable valorization of local landscapes, cultural assets, and territorial resources (Corrado, 2014; Dematteis, 2016; Covino, 2017).

These dynamics have profound implications for the transmission, visibility, and continuity of cultural heritage, particularly where living heritage depends on active use, local knowledge, and intergenerational exchange. Within this context, heritage is unevenly distributed across space, differently perceived among social groups, and variably sustained under changing territorial conditions. Building on this premise, the study investigates:

- (1) how the spatial distribution of tangible and intangible heritage features relates to differing degrees of remoteness and territorial connectivity;
- (2) how heritage perceptions and spatial patterns vary between age groups; and
- (3) how different landscape feature categories are distributed and overlap, revealing areas of layered heritage significance.

To address these questions, the paper adopts a participatory and spatially explicit approach that integrates community-based heritage mapping with geospatial analysis, contributing to a more operational understanding of living rural heritage and its role in the sustainable conservation of upland landscapes. The research forms part of Work Package 1 of the international IRIS project, funded by the

European Union's Horizon 2020 program (Grant Agreement No. 699523).

## 2. An applied methodological approach

The empirical analysis focuses on the Aveto, Sturla, Graveglia, and Fontanabuona valleys in the central Ligurian Apennines, specifically the municipalities of Carasco, Ne, San Colombano Certenoli, Rovegno, and Rezzoaglio (province of Genoa – Figure 1). According to the National Strategy for Inner Areas (SNAI, 2012), Carasco, Ne, and San Colombano Certenoli are classified as outlying areas, while Rovegno and Rezzoaglio are designated as peripheral and ultra-peripheral municipalities. These classifications reflect increasing distance from essential services and growing demographic vulnerability, including low population density, ageing, and settlement abandonment (Table 1). The main challenges affecting these municipalities include depopulation, land abandonment, loss of traditional agro-silvo-pastoral practices, and weakening social networks. These dynamics directly influence how heritage is maintained, perceived, and transmitted, particularly in mountain municipalities where reduced population size puts collective memory and everyday use of historic landscapes at risk.

The selection of these municipalities was motivated by the need to investigate complex upland rural landscapes under different conditions of remoteness, accessibility, and socio-economic integration, as outlined in the introduction. By combining municipalities closer to urban and coastal areas with more remote mountain settlements, the study captures a gradient of territorial conditions typical of European uplands. This diversity allows for a comparative understanding of how living rural heritage behaves across different spatial and demographic contexts, and how remoteness, connectivity, and settlement dynamics shape heritage visibility, value attribution, and vulnerability.

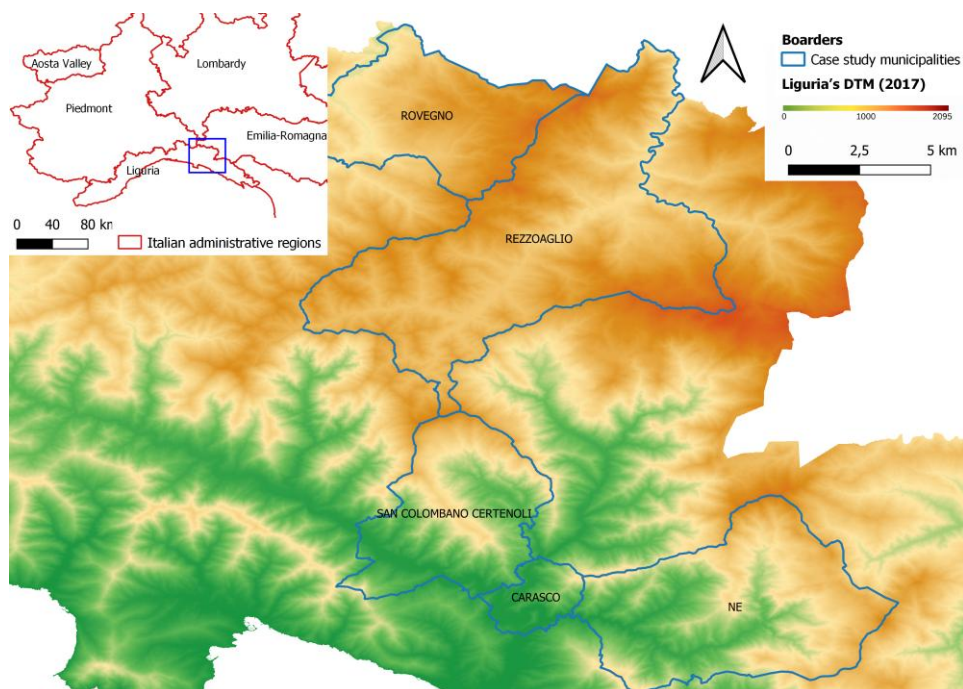


Figure 1. Location of the five municipalities of the case study area. Source: elaboration of the Author, DTM Liguria.

Municipality (n° of inhabitants, population density; Istat, 2025)	Type of school	Class groups	Number of participants	Number of places of interest
Carasco (3,712 inh.; 460.45 inh/km <sup>2</sup> )	Primary (6-11y)	3°	16	54
	Adults	/	21	93
Né (2,114 inh.; 33.26 inh/km <sup>2</sup> )	Primary (6-11y)	1-2°	9	13
	Adults	/	10	29
San Colombano Certenoli (2,668 inh., 64.53 inh/km <sup>2</sup> )	Secondary (13-19y)	1°	25	19
	Adults	/	9	11
Rovegno (471 inh., 10.59 inh/km <sup>2</sup> )	Secondary (11-13y)	3-4-5°	15	29
	Adults	/	27	50
Rezzoaglio (876 inh., 8.39 inh/km <sup>2</sup> )	Primary (6-11y)	1-2-3-4-5°	28	26
	High (11-13y)	1-3°	32	43
	Adults	/	54	105
<b>Total</b>	<b>6</b>	<b>17</b>	<b>246</b> <b>(125 + 121)</b>	<b>472</b>

Table 1. Age range and number of participants of the mapping activities and the number of places of interest. Source: elaboration of the Author.

The methodological approach is grounded in the Community and Parish Map tradition (Clifford, 1996; Mazza and Zanolin, 2023), developed in Great Britain in the early 1980s as a participatory tool for representing locally valued heritage in predominantly rural areas. This approach aims to strengthen local identity and support sustainable development by enabling communities to map what they consider meaningful in their territory, encompassing both tangible elements (such as buildings, landscapes, and infrastructures) and intangible dimensions (including memories, practices, knowledge, and symbolic meanings).

The mapping process follows four interrelated phases: recognition of valued landscape features, understanding of transformation processes and associated values, imagination of future aspirations, and choice of governance and management options. Together they provide the conceptual basis for participatory heritage identification and spatialisation. In line with this framework, the participatory methodology in this study promotes reflection on the protection, promotion, and enhancement of rural heritage (Creighton, 2005; Dossche et al., 2022) and was designed to document the knowledge, perceptions, and values of 125 schoolchildren (age 6-15; primary and secondary schools) as well as those of their family and community networks. Participants were encouraged to collect questionnaires (Figure 2) from family members and other adults, resulting in approximately 120 additional responses (Table 1). This intergenerational approach allowed the collection of heritage perceptions across age groups.

Data collection was carried out through participatory laboratories conducted between November 2022 and May 2023 in collaboration with local schools. The complete activity contained two meetings under guidance of researchers of the University of Genoa and an in-between individual data collection of the

students' adult network, executed by the students themselves.

During the first meeting, students were organised in small groups of 4-5 members, and were asked to indicate the places they considered of importance, namely those particularly significant in the identification process of their own territory (phases 1-recognize and 2-understand). Each group was given a simplified map including natural and artificial aspects of the territory (e.g. hydrography, road network, settlements and morphology), with the aim of promoting self-localisation and facilitating the identification of the places of interest, i.e. those considered "important" for the community's identity (Table 1). An assisting template asked them to argue their choices and to specify the reason why those places should not disappear (Figure 2). During a final debate, the results of this first step were recollected and mapped on an overall map (format A0) and discussed collectively. At the end of the first meeting, students were taught to execute the same exercise with family and/or community members, and asked to bring back the collected data at the subsequent meeting.

The second meeting was dedicated to the collective recollection and mapping of the adults' places of interest. Finally, a general reflection and comparison of the data between the different age groups, was followed by a discussion on the meaning of the "living heritage" concept and on possibilities of protection and enhancement (phases 3-imagine and 4-choose). Through the collaboration of local schools, "participatory maps" by different age groups have been created for the visualisation of a series of qualitative information (e.g. names of places, cultural values and memories) that reflects the perceived local rural living heritage.

Group: .....  
 Names: .....  
 School and class: .....

Indicate the places of interest (= places that are characteristic and/or you would like to exist forever) on the map, and complete the table below:

N°	Placename	When do I go there?	Why is this place important?
1			
2			

IRIS: Inspiring rural heritage: sustainable practices to protect and conserve upland landscapes and memories – WP1: Participatory Mapping  
<https://www.heritageresearch-hub.eu/project/iris/>



Figure 2. The template (translated from Italian) filled in for each place of interest indicated by the respondents. Source: elaboration of the Author.

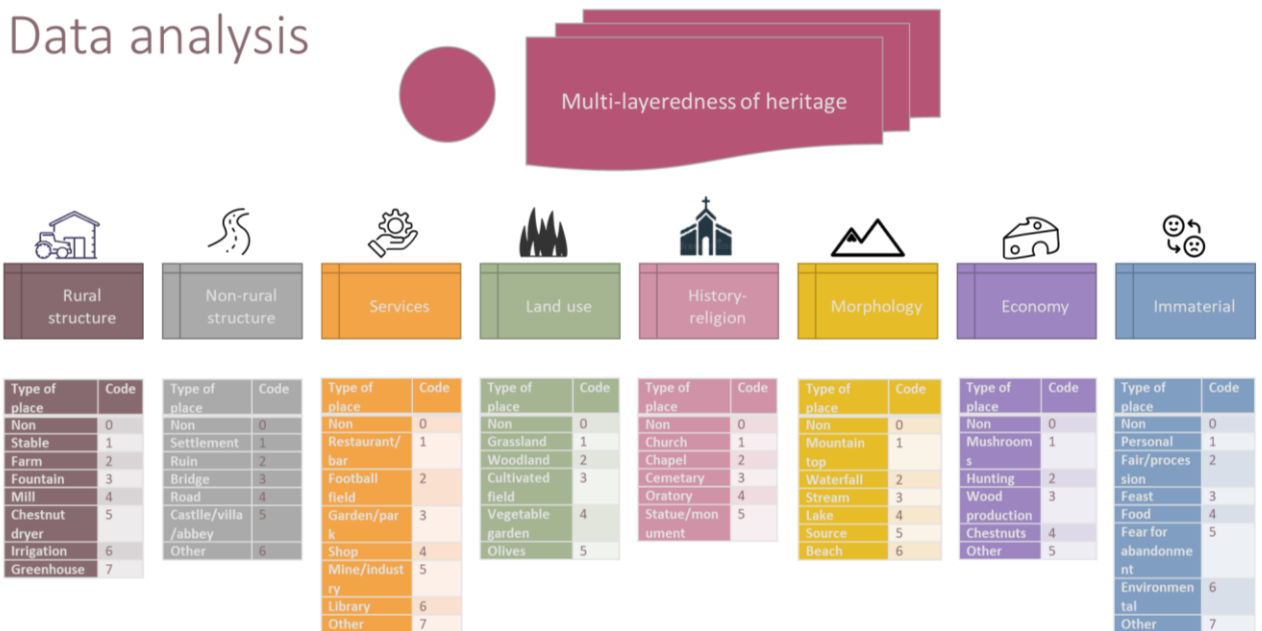


Figure 3. The multi-layered database structure. Source: elaboration of the Author.

The data analysis was executed in the following way: the information obtained from the participatory laboratories (for both minors as adults) was implemented in a relational database, in which each mapped point can have several levels of interest (Figure 3). Parallely,

the indicated places of interest were mapped as a point-based shapefile in a GIS environment (QGIS 3.16 Hannover) and an id-number was added. To visualize the spatial distribution of all the heritage features, heat maps were generated using the concentration map option within the

symbolology settings of the point layers. All mapped places of interest were included, allowing an integrated representation of heritage density with a maximum of 20. A fixed radius of 5 mm was applied, with the maximum value set to automatic, enabling normalised intensity values based on point distribution. The resulting maps highlight areas of higher concentration of heritage features, supporting the identification of spatial patterns and hotspots across the study area.

Moreover, the database constructed in Excel was joined with the layer of points through the shared column of id-numbers. As a result, the obtained information from the templates on the places of interest is spatially representable in a GIS environment. Through this organisation of the data, the multi-layeredness of the concept of heritage comes at the surface, since one location or place can have several reasons of interest or importance that enable to highlight both the horizontal as the vertical dimension of the concept of living rural heritage. It speaks for itself that certain places can have different levels of interest: for example, a stable (code 1 of rural structure) can be located in a grassland (code 1 of land use), where there is an annual fair or gathering (code 2 of immaterial heritage). Depending on what is the scope of the analysis, all of these levels can be requested to the database and visually represented: e.g. all the places with traces of rural practices, all the chapels, all the places where there is a large sense of personal relation, etc.

Generally, 472 places of interest were indicated (Table 1) and organised in eight major categories based on the type of place and/or the value it carries (Figure 3): places where there are rural structures present, places where there are infrastructures that not initially have rural means, places that offer different types of services, locations with a specific indication of land use, places with historical/ religious meaning, places that show a morphological uniqueness or that offer a certain type of economy, and places of an immaterial/intangible value.

Through this participatory and geospatial methodology, the project captured tangible and intangible features of living rural heritage, linking demographic, social, and spatial factors to community perceptions, values, and practices.

The resulting participatory maps provide a nuanced understanding of the social and cultural dynamics of the Ligurian mountain slope, informing both conservation strategies and future development policies (Barrientos et al., 2021).

### 3. Results

A general observation based on all mapped places of interest is the pronounced clustering of points in and around the six settlement centers of the study area where the participating schools are located. Similar clustering patterns are evident along the principal transportation axes situated in the lower valley floors, particularly along the Graveglia, Lavagna, Sturla, Entella, Aveto, and Trebbia valleys (Figure 4). Building on this overall spatial pattern, the following sections present the results of the spatial distribution between the six municipalities, the different age groups and the eight major heritage categories, followed by two illustrative examples that highlight how living rural heritage is expressed in concrete spatial and social terms.

#### 3.1 Spatial distribution and remoteness

The spatial distribution of mapped heritage features varies in relation to degrees of remoteness and territorial connectivity. As shown in Table 1, the highest numbers of places of interest were recorded in the more remote municipalities of Rezzoaglio and Rovegno, together with Carasco, which represents a more connected outlying municipality. These municipalities also correspond to those with the highest numbers of respondents, indicating a strong level of engagement in the mapping process. In contrast, the more coastal oriented municipalities show comparatively fewer mapped points. Spatially, heritage features in Rezzoaglio and Rovegno extend beyond settlement cores along valley systems and upland areas, whereas in Carasco mapped points are more evenly distributed and closely associated with settlement structures and infrastructure networks. Overall, the results highlight distinct spatial behavior of heritage features, but no direct correlation to remoteness and connectivity can be indicated.

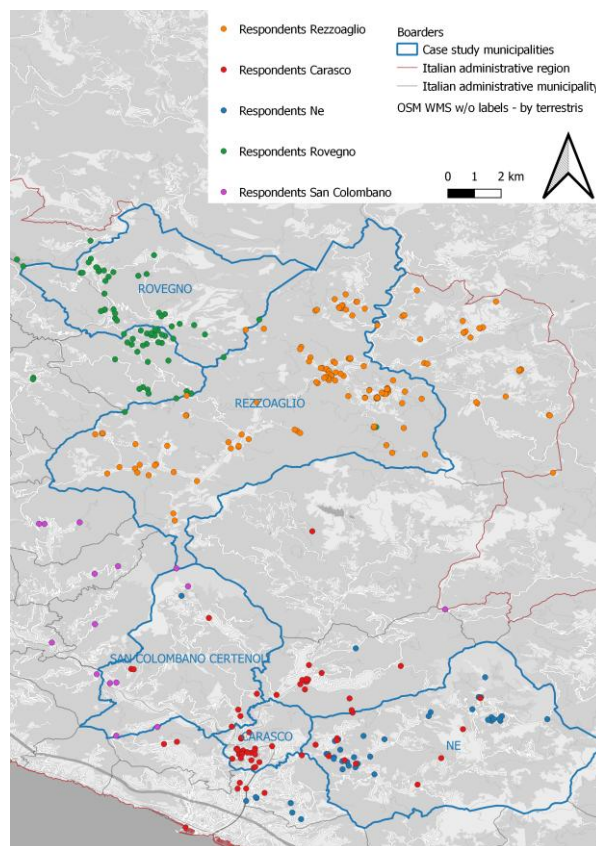


Figure 4. Overview of all the points of interest divided by the different groups of respondents (Carasco in red, Ne in blu, San Colombano in pink, Rovegno in green, Rezzoaglio in orange). Source: elaboration of the Author.

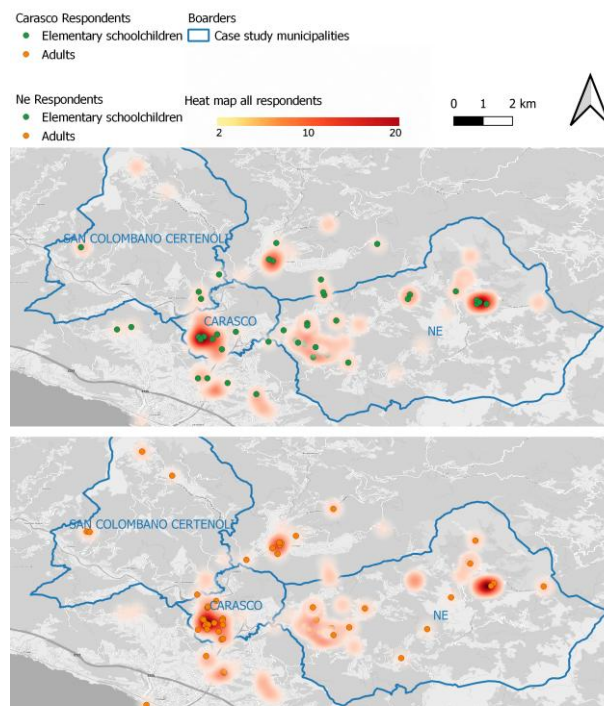


Figure 5a. Distribution of places of interest according to elementary schoolchildren and their relative adults or local stakeholders in Carasco and Ne. Source: elaboration of the Author.

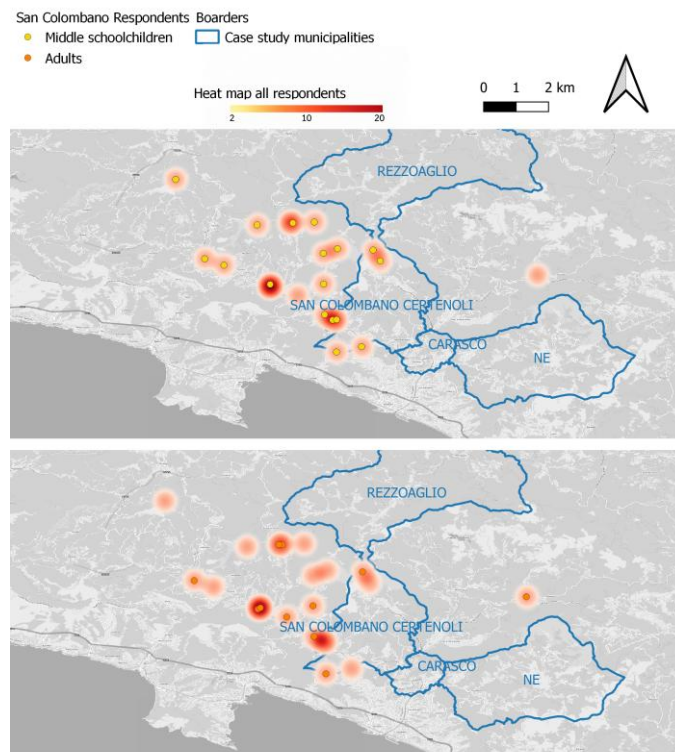


Figure 5b. Distribution of places of interest according to high school students and their relative adults or local stakeholders in San Colombano. Source: elaboration of the Author.

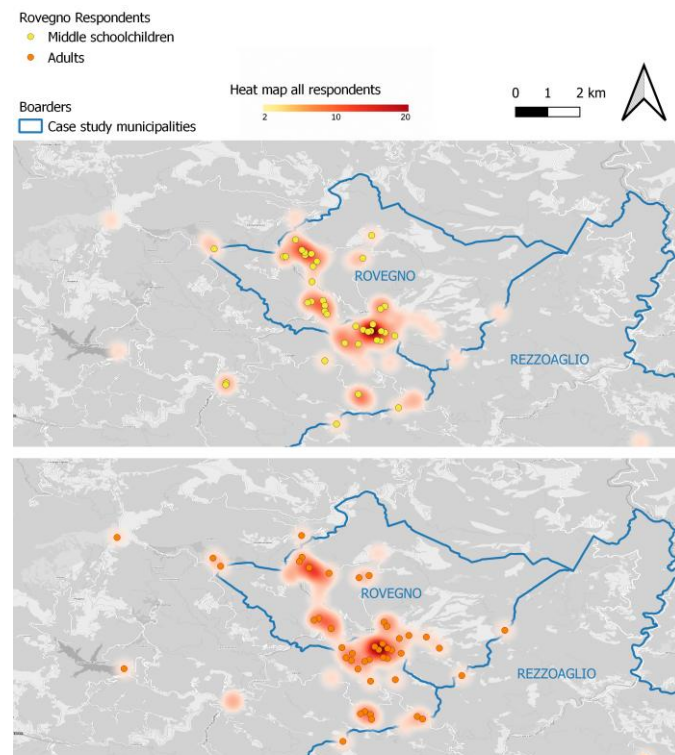


Figure 5c. Distribution of places of interest according to high school students and their relative adults or local stakeholders in Rovegno. Source: elaboration of the Author.

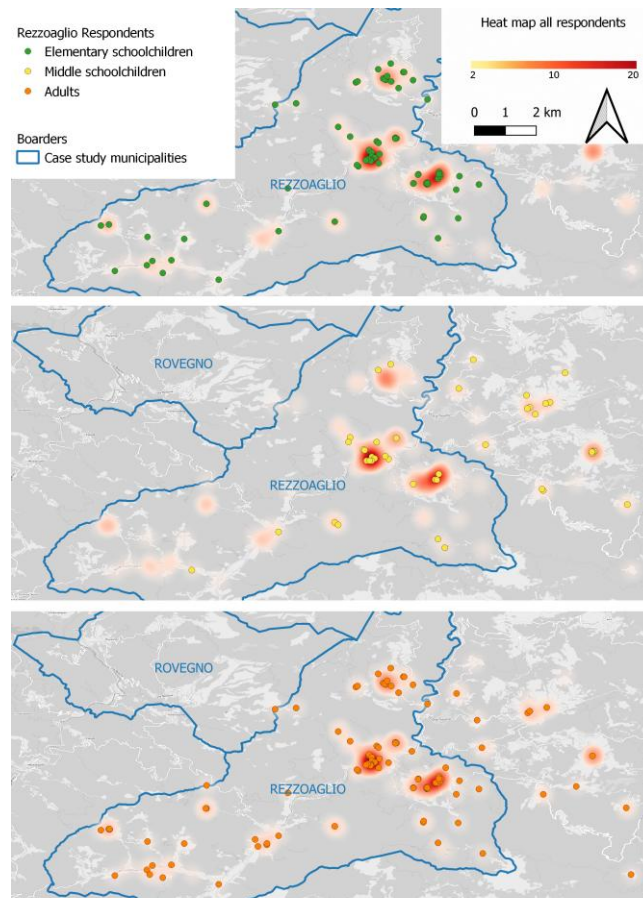


Figure 5d. Distribution of places of interest according to primary school kids and high school students and their relative adults or local stakeholders in Rezzoaglio. Source: elaboration of the Author.

### 3.2 Difference in age groups

The participatory mapping revealed clear differences in how age groups perceive and spatially represent local heritage. Schoolchildren (ages 6-11 and 11-13) tended to identify points of interest concentrated around settlements and public spaces, including playgrounds, sports fields, parks, shops, and historical or religious sites such as churches and monuments (Figures 5a-d, elaborated on basemap OSM WMS w/o labels by terrestris). In contrast, adults generally indicated a larger number and wider variety of locations, with points more dispersed across the landscape. Their selections emphasized tangible heritage – including rural structures (farms, irrigation systems, fountains) and non-rural structures (bridges, villas, castles) – as well as intangible values associated with land use, aesthetic, environmental, and social practices (e.g., fairs, hiking, and collective gatherings).

It is notable that children from the less remote municipalities (Carasco, Ne and San Colombano) identified far fewer sites associated with former rural practices – such as mushroom and chestnut gathering, hunting, and wood production – compared with schoolchildren in the more remote mountain areas of Rovegno and Rezzoaglio. In these remote areas, points of interest more frequently reflect a continuous connection with historical rural practices, indicating the presence of living cultural heritage maintained through ongoing local use.

In the cases of Carasco and Ne (Figure 5a), schoolchildren showed a high clustering of points around the main settlements of Consenti, Mezzanego, and Arzeno. These locations correspond to public spaces (football fields, playgrounds, parks), service centers (shops, administrative offices), and sites of historical or religious significance (churches, chapels,

monuments). In contrast, the responses of adults indicate a higher diversity and wider spatial dispersion of places of interest. Their selections are predominantly focused on the tangible heritage dimension, including non-rural structures (bridges, castles, villas), rural structures (irrigation systems, fountains, farms), and locations of historical or spiritual significance (churches and monuments).

Due to the relatively small number of respondents, both students and adults, the results for San Colombano Certenoli (Figure 5b) indicate a general tendency toward dispersion of places of interest rather than clear clustering. Additionally, responses do not show notable differences between age groups; both children and adults focused on sites where artificial and natural traces of collective heritage are present, including the ancient mine, the medieval bridge, waterfalls, and mountain tops.

In the case of Rovegno (Figure 5c), which includes a series of hamlets, most places of interest are concentrated in the centers of Rovegno and Fontanigorda. Middle school students primarily indicated points of social gathering, such as bars, restaurants, playgrounds, and the swimming pool, without reference to morphology or land use categories. Adults, in contrast, identified sites associated with land-use features, particularly woodlands and meadows, many of which have economic value (e.g., chestnuts, mushrooms, or timber) or intangible significance linked to fairs, aesthetic appreciation, or social activities such as hiking and picnics. Adults also highlighted features of local morphology, including mountain tops and lakes. Notably, respondents did not indicate any sites where pasturing activities remain active on the mountain tops.

In Rezzoaglio (Figure 5d), where participatory mapping involved two schools, differences across age groups are evident. Elementary schoolchildren identified the fewest places (26), mainly moderately clustered woodlands used for chestnut and mushroom gathering or hunting, as well as mountaintops with hiking trails and locations of annual fairs. Middle schoolchildren indicated more sites (43), focusing on places of social gathering or locations of particular local significance, with

varying degrees of clustering. Adults mapped the highest number and diversity of places, showing a dispersed spatial pattern. Their selections often combined material and immaterial heritage and, uniquely in Rezzoaglio, included sites associated with still active rural practices, such as pasturing and cheese production.

It draws the attention that the minors of the southern part of the whole research area, indicate much less places related with former rural practices (mushroom/chestnut picking, hunting activities, wood production) than the schoolchildren in the more remote mountain areas such as Rovegno and Rezzoaglio. An explanation lies in the fact that only in the remote mountain areas, an uninterrupted contact with the rural/cultural heritage of the past is registered, and hence, only here the existence of an effectively living cultural heritage is noted.

### 3.3 Spatial distribution of main categories

Other than the differences between the age groups, the spatial distribution between the main heritage categories is important (Figures 6a-f).

Rural structures (Figure 6a) are predominantly indicated by respondents in the mountain municipalities of Rezzoaglio and Rovegno and include stables, mills, fountains, and livestock farms for milk, cheese, or meat production. Although these farms rely on meadows and pastures, such land uses were rarely mentioned as part of the perceived rural heritage. In lower-lying municipalities – Ne, Carasco, and San Colombano – respondents identified similar rural structures; however, these farms focus on vegetable, flower, and olive cultivation, often closely linked to irrigation systems and fountains. Non-rural structures (Figure 6b), such as bridges, villas, and castles, are widely dispersed across the whole study area. Similarly, services (Figure 6c), including schools, bars, restaurants, playgrounds, museums, shops, and hiking trails, are distributed throughout the municipalities and are valued primarily for their role in daily life rather than for their heritage meaning.

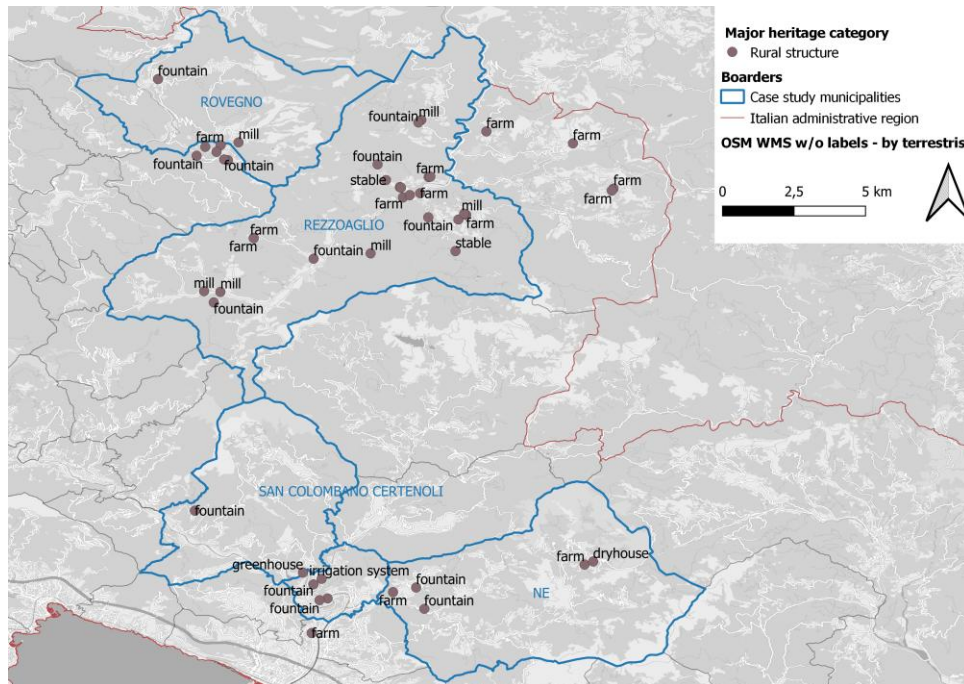


Figure 6a. Spatial distribution of the rural structures as category of places of interest for the whole study area. Source: elaboration of the Author.

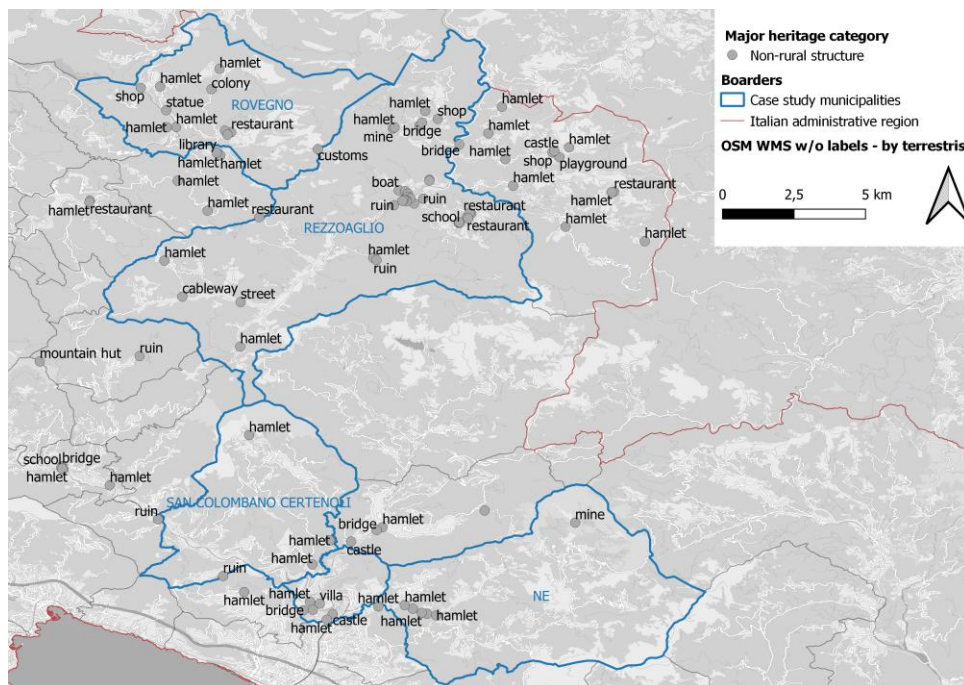


Figure 6b. Spatial distribution of the non-rural structures as category of places of interest for the whole study area. Source: elaboration of the Author.

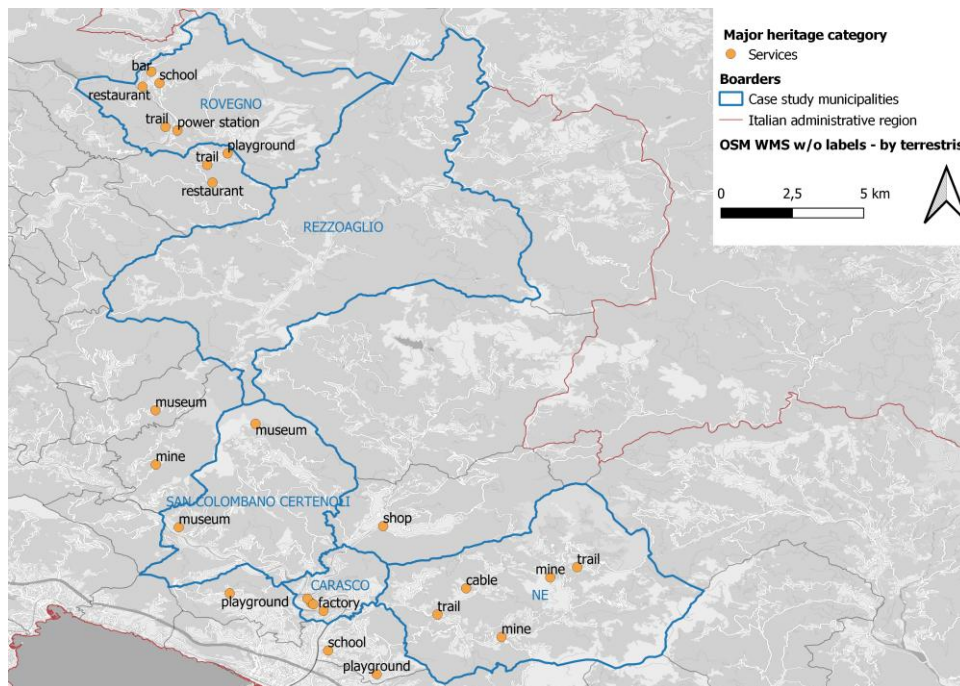


Figure 6c. Spatial distribution of the services as category of places of interest for the whole study area. Source: elaboration of the Author.

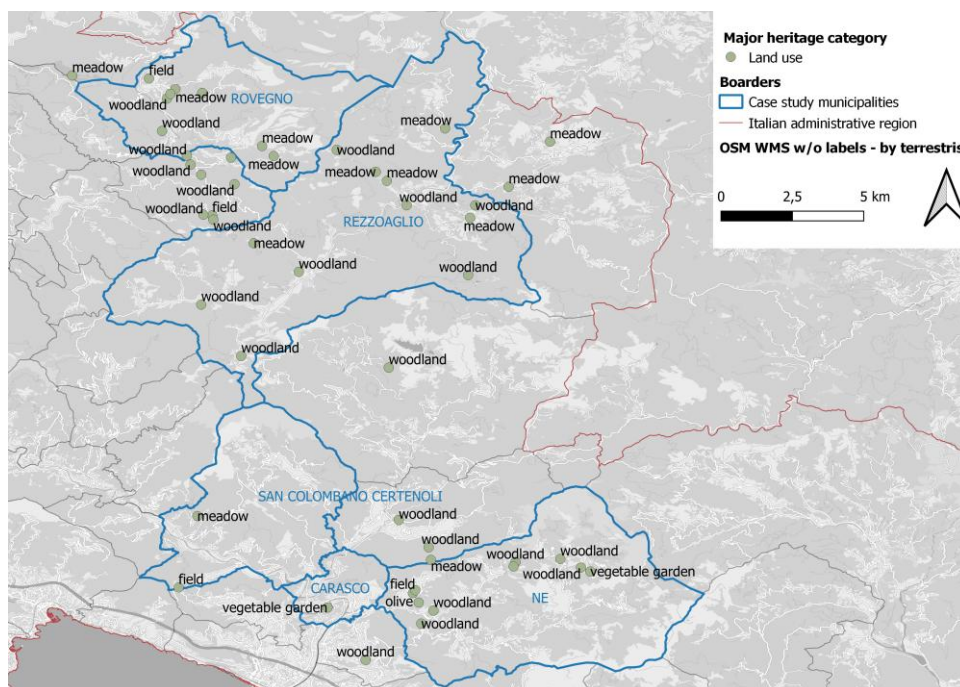


Figure 6d. Spatial distribution of land use as category of places of interest for the whole study area. Source: elaboration of the Author.

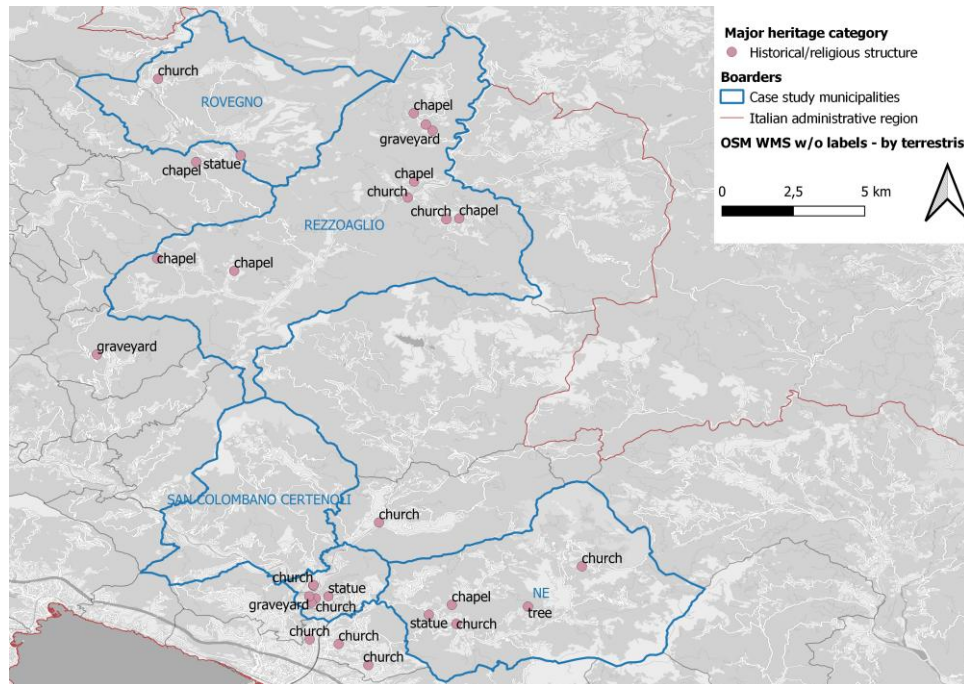


Figure 6e. Spatial distribution of the historical/religious sites as category of places of interest for the whole study area. Source: elaboration of the Author.

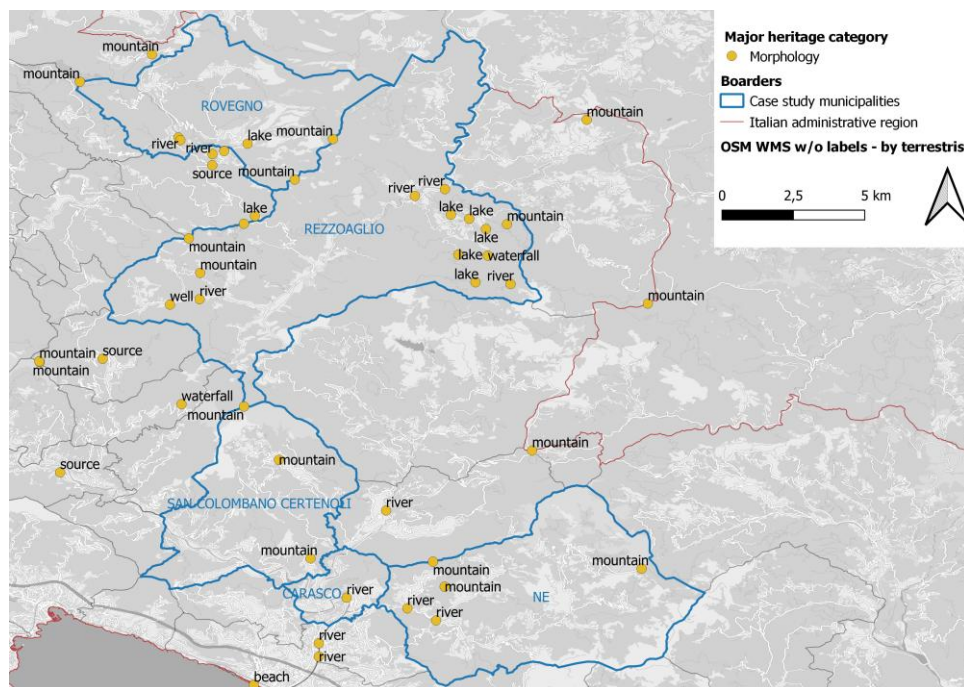


Figure 6f. Spatial distribution of the morphology sites as category of places of interest for the whole study area. Source: elaboration of the Author.

Land-use features (Figure 6d), including woodlands, grasslands, cultivated land, and vegetable gardens, are primarily highlighted in the mountain municipalities of Rovegno and Rezzoaglio, with some presence in Ne. In the mountains, woodlands and meadows are associated with traditional practices such as chestnut or mushroom gathering and hunting, while grasslands are mostly used for leisure. In lower-lying areas like Ne, woodland and grasslands are valued for recreational activities such as hiking and picnicking, largely detached from historical rural practices.

Sites with historical or religious significance (Figure 6e) often coincide with locations of morphological interest (Figure 6f) and frequently overlap with intangible heritage elements.

Generally, an important difference between the remote mountain areas of Rezzoaglio and Rovegno emerges and can be an indicator of the level of still living rural heritage. While in the case of the first municipality, there are numerous references to the principal seasonal fairs as a domain of experience of the local tradition, in the case of Rovegno, the same experience is not related with those type of occasions.

Overall, the distribution of these heritage categories highlights the layering of tangible and intangible values, showing how tangible, intangible, historical, and landscape features intersect and contribute to local identity, while also reflecting variations in the persistence of traditional rural practices across municipalities.

### 3.4 The current multi-layeredness of living rural heritage: two examples

To illustrate the multi-layeredness of living rural heritage and respond to the questions – what type of rural heritage reflects local identity, and under which circumstances an event-related tradition can be considered “living” – two examples from Rezzoaglio are presented.

**Mucca Cabannina – Scabbiamara:** This site (grassland id n°119, stable id n°120, farm id n°121) exemplifies layered rural heritage through the combination of a rural structure

(farm and stable), a typical land use (meadow), and an associated rural practice (cheese production). Its significance is amplified by the presence of the local autochthonous bovine breed, the *Mucca Cabannina*, which is also a Slow Food presidium. Respondents frequently highlighted the importance of preserving this traditional breed. Here, rural heritage remains truly living, sustained through the recovery of an ancient breed and the ongoing conservation and valorisation of the landscape shaped by traditional pasturing and cheese-making practices.

**The Mill of Brugnoli (1858):** Also located in Rezzoaglio, the mill exemplifies a more nuanced form of living heritage. Respondents valued it for its historical function: “an old abandoned mill where they grind corn, wheat, rye, and in winter, chestnuts collected from the village or neighboring villages”. Historically, the mill reflects the locally-based rural economy, water-powered flour production, and the broader agro-silvo-pastoral system of the Ligurian Apennines. Today, the mill is no longer used for daily production but is activated during a patronal feast, demonstrating that rural heritage can persist through occasion-based cultural practices, linking collective memory and identity to specific events in the community calendar.

Together, these examples demonstrate the varied expressions of living rural heritage: one sustained through ongoing practical use, the other maintained through symbolic and event-based practices, highlighting the complex interplay of tangible, intangible, and functional values in shaping local identity.

## 4. Discussion and Conclusion

The results demonstrate a high diversity of places of interest across the study area, with certain locations widely recognized by the entire community, while others face a high risk of losing their associated knowledge and values. Age plays a clear role in shaping perceptions: younger children predominantly indicate nature-based locations (woods, rivers, lakes), whereas adolescents show a preference for leisure-oriented sites. These findings respond directly to RQ2, revealing that heritage perceptions differ

between age groups, reflecting both experiential engagement and everyday practices.

The multi-layeredness of heritage emerges as a central theme: individual locations often hold multiple levels of significance, combining tangible, intangible, and functional values. Sites with intangible importance – such as festivals or patronal feasts – play a key role in maintaining community memory and identity, highlighting the need for decision-makers to integrate rural practices into governance and conservation strategies. This aligns with the research gap identified in the introduction: participatory and spatially explicit approaches to living rural heritage remain underdeveloped, particularly in upland and marginal areas where local knowledge is essential for heritage survival.

The participatory methodology proved effective in engaging students and their families, encouraging reflection on the significance of local landscapes and cultural practices. By integrating participatory mapping with geospatial tools, the survey made tangible and intangible heritage spatially explicit, addressing RQ1 by illustrating how heritage features are distributed across varying degrees of remoteness and connectivity. The data show that more remote municipalities, such as Rovegno and Rezzoaglio, not only generate a higher number of points of interest but also reflect the persistence of living rural heritage through ongoing practices, such as cheese production or chestnut collection. In contrast, areas closer to urban settlements emphasize social and leisure functions, revealing how heritage values shift with proximity and daily use.

Analysis of heritage categories (RQ3) further highlights spatial differentiation: rural structures and traditional agricultural practices are concentrated in mountain municipalities, whereas non-rural structures and service-related sites are more evenly dispersed. Historical and religious locations frequently overlap with intangible heritage elements, suggesting that certain sites function as cultural anchors, even when direct traditional practices have declined. The examples of the Mucca Cabannina and the Mill of Brugnoli illustrate two contrasting forms of living heritage: one sustained through active use and conservation, the other maintained

primarily through symbolic or event-based practices. These cases underline that “living” heritage may exist both as a practical continuity of traditional activities and as an enacted, socially recognized memory of past practices.

This participatory survey allowed students to reflect together on their perception of heritage and the places in which they live; which aspects they consider important and for which they would like greater protection and the possibility of usability in the future. The considerations arising from the debate have also allowed us to reflect on the processes of protection and conservation that, in order to be effective, should necessarily involve actively those who live daily in the territory. To this end, the dialogue between universities and local governments, through activities such as the presented participatory mapping, is a valuable tool for involving local communities in the formulation of effective strategies for the protection and enhancement of the territory.

Participatory mapping techniques offer powerful educational insights when used with elementary and high school students, particularly in relation to understanding and valuing rural heritage. By actively engaging children in identifying, representing, and discussing the landscapes and cultural practices around them, these methods foster place-based learning and strengthen intergenerational knowledge exchange. As highlighted by Piva (2020), participatory mapping encourages learners to perceive rural heritage not as a static collection of sites, but as a living set of relationships between people, land, and memory. Similarly, Ivona (2021) emphasizes that mapping activities nurture critical thinking and spatial awareness while giving students a sense of agency in interpreting their environments. Together, these perspectives show how participatory mapping can transform local heritage into an accessible, experiential learning resource, enabling young people to connect personal experience with broader cultural and environmental narratives. This echoes the principles outlined in the European Landscape Convention and CEMAT guidelines, reinforcing the importance of local participation in heritage conservation and landscape governance.

Finally, we can conclude that there is a high diversity of places that play a role in the construction of the sense of belonging of local communities within their spatial context. Complex elements constitute the rural heritage as an organic system, which shows extraordinary vitality, resilience, and an inherent sense of place. It is humans who undertake continuous operations from one generation to the next and integrate diverse elements (Du and Shi; 2019). What instead remains seemingly undefined is the meaning that the community assigns to the concept of living rural heritage. Therefore, this survey provided an opportunity to probe for consistency within the usual association of the concept of living rural heritage to socio-cultural practices that reflect the continuity of traditions that describe the special fusion between community and landscape at the base a common identity. In this respect, the coincidence of the most evocative places with places that offer opportunities for socialization based on the replication of ritual practices linked to an abandoned rural world, suggests the revision of the contents normally assigned to living rural heritage. In particular, today, rural heritage seems to recall more the process of theatricalization of former traditions than their continuity over time. In the same way, the image of what is endowed with life – living – seems to refer mostly to what is artificially “made alive”, as is evident from the common places of interest to every age group. Those places stimulate an artificial and temporary experience of their own socio-cultural identity due to an apparent reproduction of the foundations of the local landscape. From this perspective, the rural heritage is divided into a multiplicity of images that, as results from the survey, have as their only common element the opportunities for socialization offered by the replication of ancient practices, from the collection of chestnuts to religious processions connected to the cycles of agriculture, connected to an

economy that has become an exhibit. As stated before, it is therefore necessary to try to redefine the processes of sustainable valorisation and conservation in such a way as to adapt them to the form of living rural heritage. This is an extremely complex issue: this conclusion limits itself to an outline of an idea. Regarding the fragmentation of the landscape linked to the rural heritage which is occasionally brought to life, sustainable valorisation and conservation can be conceived as the planning and programming of interventions that are able to connect and harmonize the individual remains of that heritage where the local community still experiences and expresses themselves.

In conclusion, this research demonstrates that living rural heritage in upland areas is simultaneously diverse, layered, and dynamic, with its survival depending on both tangible continuity and community recognition. Participatory, geospatially explicit approaches provide a practical framework for understanding and managing this complexity, informing sustainable valorisation and conservation strategies. Future efforts should aim to strengthen the link between local practices, institutional governance, and heritage planning, ensuring that living rural heritage continues to shape community identity while adapting to contemporary socio-economic and environmental challenges.

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