

Аглядны артыкул

Разуменне традыцыйных сельскіх будынкаў Паўднёвай Італіі як рэсурсаў спадчыны

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Анотацыя. Гэта даследаванне прадстаўляе структураваны метада інтэграцыі сельскай культурнай спадчыны ў ужо існуючыя турыстычныя маршруты, з асаблівым акцэнтам на сіцылійскія вінныя шляхі, вядомыя як Strade del vino. Асноўная мэта заключаецца ў тым, каб пазіцыянаваць традыцыйныя сельскія будынкi як каштоўныя культурныя аб'екты і адначасова пашырыць магчымасці сельскага турызму. Прасоўванне гэтых будынкаў разам з мясцовымі віннымі і кулінарнымі традыцыямі можа спрыяць устойліваму сацыяльна-эканамічнаму росту, дыверсіфікацыі сельскай эканомікі і ахове культурных ландшафтаў. Прапанаваны падыход выкарыстоўвае дэталёвую рамку ацэнкі спадчыны для паляпшэння грамадскага разумення, інтэрпрэтацыі і калектыўнага ўспрымання сельскіх культурных каштоўнасцей. Даследаванне засяроджваецца на традыцыйным сельскім будынку з віннымі сцяпамі і алейнымі млынамі ў раёне К'ярамонтэ-Гульфі ў правінцыі Рагуза, падкрэсліваючы яго патэнцыял як даступнага аб'екта архітэктурнай спадчыны, пабудаванага з мясцовых матэрыялаў і з выкарыстаннем традыцыйных сіцылійскіх будаўнічых тэхнік. Аналіз таксама акцэнтуюе ўвагу на важнасці кансервацыйных практык, якія захоўваюць гістарычную ідэнтычнасць будынка і адначасова адпавядаюць прынцыпам рэстаўрацыі і прававым патрабаванням. Спалучаючы сацыяльныя, экалагічныя і эканамічныя аспекты, гэты падыход падтрымлівае шырэйшую праграму ўстойлівасці і ўзмацняе ўклад сельскай спадчыны ў развіццё ўстойлівага турызму.

Ключавыя словы: культурны турызм; традыцыйная сельская архітэктура; устойлівы сельскі турызм; вінныя шляхі; захаванне сельскай спадчыны..

Review Article

Understanding Southern Italy's Traditional Rural Buildings as Heritage Resources

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Abstract. This study presents a structured method for integrating rural cultural heritage into established tourism itineraries, with a particular focus on the Sicilian wine routes, known as Strade del vino. The main aim is to position traditional rural buildings as valuable cultural attractions while also widening the scope of rural tourism. Promoting these buildings together with local wine and culinary traditions can support sustainable socio-economic growth, diversify rural economies, and help protect cultural landscapes. The proposed approach applies a detailed heritage evaluation framework to improve public understanding, interpretation, and collective appreciation of rural cultural assets. The study focuses on a traditional rural building with wine cellars and oil mills in the Chiaramonte Gulfi area of Ragusa, highlighting its potential as an accessible architectural heritage site built with local materials and traditional Sicilian construction methods. The analysis also emphasizes the importance of conservation practices that protect the historical identity of the building while meeting restoration principles and legal requirements. By combining social, environmental, and economic considerations, this approach supports a broader sustainability agenda and reinforces the contribution of rural heritage to sustainable tourism development.

Keywords: cultural tourism; traditional rural architecture; sustainable rural tourism; wine routes; rural heritage preservation.

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Introduction

Rural areas and their associated landscapes are increasingly threatened by land abandonment, soil degradation, and the relocation of human activities toward urban centers. These processes lead to significant transformations in ecological systems and landscape structures, with projections indicating that such trends will affect a growing number of regions worldwide (Castillo et al., 2020). In response to these challenges, the conservation and enhancement of traditional rural landscapes have gained greater importance, particularly in light of international and European policy frameworks emphasizing their ecological, social, and historical value (Sonnino et al., 2014). Sustainable rural development involves redefining rural resources in ways that support employment in agricultural sectors, strengthen connections between rural and urban communities, and preserve land and environmental resources. This approach aligns with the widely recognized three dimensions of sustainability—social, economic, and environmental—which together form the foundation of sustainable development (Purvis et al., 2019).

The concept of sustainable development has been extensively examined in academic literature, with studies highlighting the interconnections between governance, economic models, management practices, and sustainability measurement systems (Giovannoni & Fabietti, 2013; Han, 2021; Janoušková et al., 2016). These theoretical

perspectives emphasize the importance of integrated strategies that consider environmental protection, economic growth, and social well-being. Furthermore, sustainability theories related to rural contexts underscore the need for effective planning, policy development, and decision-making processes that acknowledge the complex interactions between human activities and environmental systems (Mathis & Harrington, 2017). A foundational definition of sustainable development was established in the Brundtland Report, which described it as development that fulfills present needs without compromising the ability of future generations to meet their own requirements (World Commission on Environment and Development, 1987). This perspective highlights the necessity of maintaining a balance between economic advancement, social progress, and environmental preservation while ensuring the long-term resilience of natural ecosystems (Hawkes, 2014; Wu et al., 2016). Sustainable development is achieved when economic activities support environmental conservation and enhance social well-being, thereby maintaining or improving quality of life across generations (Hendiani & Bagherpour, 2020).

In addition to these three fundamental pillars, culture has increasingly been recognized as an essential fourth dimension of sustainability, as it shapes social identity, values, and collective memory (Hawkes, 2014; Loach et al., 2020). International frameworks, including UNESCO declarations and conventions, emphasize the important relationship between cultural diversity and sustainable development, recognizing culture as a key element that supports social cohesion, economic resilience, and environmental responsibility (UNESCO, 2001, 2005). Cultural heritage, therefore, plays a crucial role in promoting sustainable rural development, particularly through the preservation of traditional buildings and landscapes that reflect historical practices and regional identities.

The decline of traditional agricultural activities has contributed significantly to the abandonment of vernacular rural buildings, which once played a central role in agricultural production and rural life (Cillis et al., 2020; Picuno, 2012). These structures represent important cultural assets, as they embody traditional knowledge, construction techniques, and regional architectural characteristics. Several studies have highlighted the potential of cultural rural tourism as a sustainable strategy to support rural development, enhance economic opportunities, and preserve cultural heritage (Macdonald & Jolliffe, 2003; Villanueva-Álvarez et al., 2017). Cultural rural tourism contributes to both economic growth and cultural preservation by promoting local traditions, strengthening social relationships, and enhancing the attractiveness of rural destinations (An & Alarcón, 2020). Tourists increasingly seek authentic and meaningful experiences that connect them with local culture, heritage, and traditional lifestyles, thereby creating opportunities for rural communities to diversify their tourism offerings and improve competitiveness (Zloch & Štátná, 2020).

Sustainable rural tourism also contributes to environmental protection, economic revitalization, and social development by supporting local employment, improving infrastructure, and raising awareness of cultural and natural heritage (Bachleitner & Zins, 1999; European Summer Academy for Sustainable Rural Development, 2003). In addition, rural tourism can play an important role in preserving cultural identity and encouraging the revitalization of rural communities that have experienced population decline (Joo et al., 2020). Strategic approaches to rural tourism development emphasize the importance of balancing tourism growth with landscape conservation and cultural preservation to ensure long-term sustainability (Garau, 2015). Effective tourism planning and management strategies must consider environmental protection, business sustainability, and cultural preservation to ensure that tourism contributes positively to rural development (Villanueva-Álvarez et al., 2017). In this context, heritage interpretation has emerged as an important tool for enhancing the attractiveness and accessibility of cultural sites, enabling visitors to better understand and appreciate their historical and cultural significance (Leanza et al., 2016).

Heritage interpretation involves communication strategies designed to enhance visitors' understanding and emotional connection to cultural sites, thereby encouraging appreciation, conservation, and responsible tourism behavior (Blockley & Hems, 2005). This process plays a key role in transforming cultural assets into meaningful tourism

experiences, which can increase visitor engagement and encourage longer stays in rural areas (Pedersen, 2002; Szromek, 2019). Traditional rural buildings represent valuable cultural heritage elements, as they reflect historical construction methods, local materials, and traditional agricultural practices (Picuno et al., 2017). These structures possess significant cultural, historical, and economic value, and their preservation contributes to maintaining regional identity and promoting sustainable territorial development (Simona et al., 2012). The adaptive reuse of traditional rural buildings for tourism purposes, such as museums, accommodation, and cultural attractions, can enhance their economic viability while ensuring their long-term conservation.

Traditional rural buildings associated with agricultural production, including wine cellars and oil mills, offer unique opportunities for developing cultural and gastronomic tourism experiences. Wine tourism, in particular, represents an important model of sustainable tourism, as it integrates cultural heritage, agricultural traditions, and regional identity (Cuerva et al., 2019). Restoration and adaptive reuse projects have demonstrated the potential of transforming historic agricultural buildings into cultural attractions while preserving their architectural and historical integrity. However, restoration efforts must carefully respect historical authenticity, architectural characteristics, and regulatory requirements to ensure both cultural preservation and functional adaptation.

In Sicily, wine tourism has been formally recognized as an important cultural and economic activity, supported by national and regional policies that promote wine routes and related tourism experiences (Ministero delle Politiche Agricole, 2019). These initiatives aim to strengthen the connection between cultural heritage, local products, and tourism development while supporting sustainable rural economies (Bellia & Pilato, 2014). The Wine Roads system was established to promote vineyards, wineries, and traditional rural buildings as integrated tourism destinations, providing opportunities for visitors to experience local culture, gastronomy, and agricultural traditions.

Within this context, the main objective of this study is to develop a methodological framework for evaluating traditional rural buildings as cultural heritage attractions within an existing tourism itinerary, specifically the Cerasuolo di Vittoria Wine Road. This research focuses on a traditional rural building located in the Chiamonte Gulfi area, within the Fegotto estate, which represents an important example of rural architectural heritage constructed using traditional Sicilian materials and techniques (Lauretta, 1999). Many traditional rural buildings face challenges related to abandonment, structural deterioration, and limited accessibility, which reduce their potential for tourism development and heritage preservation (Arcidiacono et al., 2015). The proposed methodology aims to assess the suitability of such buildings for integration into cultural tourism routes, thereby supporting heritage conservation, enhancing visitor experiences, and promoting sustainable rural development.

Materials and Methods

The heritage site examined in this study was selected due to its location within a rural landscape characterized by numerous traditional rural buildings (TRBs), many of which remain underused despite their historical and cultural significance. Preserving and revitalizing these structures is essential, as they embody the historical identity and architectural traditions of the region. Furthermore, their adaptive reuse presents an opportunity to diversify tourism beyond coastal destinations, which currently dominate visitor activity and are highly seasonal, with peak tourist concentrations occurring between July and September. As a result, tourism infrastructure is primarily oriented toward seaside accommodations, limiting the development potential of inland rural areas.

The Fegotto Complex was established within the historic Fegotto estate, covering approximately 2,500 hectares in the municipality of Chiamonte Gulfi, located in the Province of Ragusa, Sicily. Its geographic position historically enabled control over transit routes connecting the Hyblean Mountains and the city of Catania (see Figure 1). Until the

mid-twentieth century, the estate functioned as a major agricultural center, producing wheat, tobacco, carob, almonds, grapes, and olive oil.

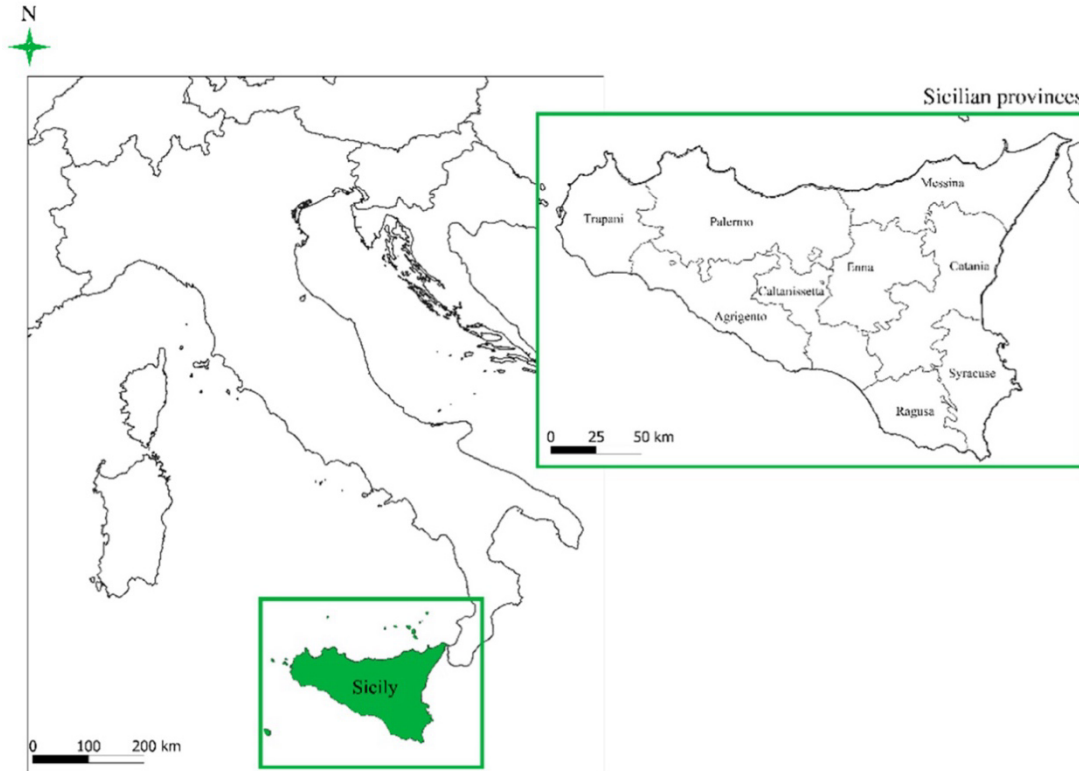


Figure 1. Geographic location of the Fegotto Complex in Chiaramonte Gulfi, Province of Ragusa, Sicily.

The complex represents a notable example of Sicilian latifundium architecture, with origins dating back to the seventeenth and eighteenth centuries. Renovation works carried out between 1873 and 1878 defined the current spatial organization, expanded the main residential building, and enhanced the architectural character of the estate, contributing to its historical and cultural significance (Rojas et al., 2021). The main residence, Villa Fegotto, occupies a visually dominant position and has been used as a filming location for cinema and television productions. The complex also includes a church, wine cellar, oil mill, residential buildings for workers, and a school that operated until 1975.

The estate consists of nineteen buildings organized around three courtyards, with the main courtyard serving as the central functional space. Constructed using locally sourced Comiso limestone, this courtyard provides access to the primary residence and adjacent church, which features a neoclassical façade (see Figure 2). Architectural elements of the villa, including window frames, doors, and structural details, reflect stylistic influences commonly found in urban architectural traditions.



Figure 2. View of Villa Fegotto and the central courtyard constructed using traditional Comiso limestone.

Surrounding the central courtyard are single-level buildings historically used by agricultural workers, including storage areas, barns, stables, and food production facilities. A large entrance portal leads to a secondary courtyard characterized by limestone paving and mature olive trees, emphasizing the agricultural heritage of the estate (see Figure 3). This area is enclosed by functional structures such as workshops, storage buildings, and production spaces. The wine cellar and traditional pressing facility (palmento) remain exceptionally well preserved, retaining original equipment and spatial configurations. The cellar's architectural layout features a three-nave design supported by limestone columns, demonstrating advanced construction techniques for its time.



Figure 3. Olive courtyard within the Fegotto Complex, illustrating traditional rural spatial organization.

Additional spaces include livestock shelters, storage facilities, and ancillary structures organized around a third courtyard, which functioned as an operational area for agricultural activities. The complex is traversed by a primary east-west axis that connects its various components and enhances accessibility. The northern section of the estate contains a landscaped garden designed according to nineteenth-century romantic garden principles, accessible directly from the public road (see Figure 4).



Figure 4. Landscape and garden area of the Fegotto estate reflecting nineteenth-century romantic garden design principles.

The tourism sector experienced significant disruption during 2020 and 2021 due to the COVID-19 pandemic, which led to restrictions on international travel and a decline in foreign tourism. In contrast, domestic tourism remained relatively stable and even increased in certain areas. In 2021, the Province of Ragusa recorded 198,707 tourist arrivals and 688,388 overnight stays.

The data indicate a predominance of domestic visitors, with foreign tourists accounting for only a small proportion of total arrivals and overnight stays. Among domestic travelers, residents from Sicily represented the largest group, followed by visitors from Lombardy, Lazio, and Campania. International visitors originated primarily from France, Germany, the United States, the United Kingdom, Spain, the Netherlands, Switzerland, Belgium, Poland, and Australia.

Tourism activity remains highly seasonal, with peak visitation concentrated during the summer months and primarily focused on coastal destinations. Accommodation capacity in 2021 included 11,944 hotel beds and 9,819 beds in alternative accommodation facilities, reflecting the province's reliance on traditional tourism infrastructure (World Commission on Environment and Development, 1987). This study developed a structured seven-phase methodology to evaluate the suitability of traditional rural buildings for integration into existing tourism routes, with the objective of supporting sustainable heritage management and tourism diversification. Increasing public awareness of cultural heritage values is essential for ensuring the long-term preservation of traditional rural buildings and promoting their sustainable reuse (Hawkes, 2014).

The first phase involved defining the visitor profile through questionnaires distributed to tourists staying in various accommodation facilities. The survey examined visitor demographics, motivations, travel behavior, expectations, and experiences. Understanding visitor characteristics provides essential information for evaluating tourism potential and planning heritage interpretation strategies (Blockley & Hems, 2005). The second phase focused on identifying interpretative elements that enhance the heritage value of traditional rural buildings, including architectural features, historical context, construction techniques, and environmental relationships. Heritage interpretation plays a critical role in improving visitor engagement and promoting cultural understanding (Leanza et al., 2016). The third phase involved evaluating accessibility using Geographic Information System (GIS) analysis. Tourism routes can facilitate regional development by distributing tourism benefits beyond traditional destinations and supporting rural economic diversification (Villanueva-Álvaro et al., 2017). The fourth phase assessed the physical condition and conservation status of the buildings by examining structural integrity, construction materials, and architectural features. The fifth phase defined strategic objectives for adaptive reuse, including potential applications such as museums, visitor centers, or tourism accommodation facilities. The sixth phase involved identifying necessary restoration actions, including appropriate materials, technologies, and conservation techniques. The final phase focused on sustainable restoration, emphasizing preservation of original architectural characteristics, traditional construction techniques, and environmental sustainability principles. Sustainable restoration contributes to cultural preservation while supporting environmental protection and economic development (Purvis et al., 2019). The overall methodological framework is illustrated in Figure 5.

FLOW - CHART METHODOLOGY

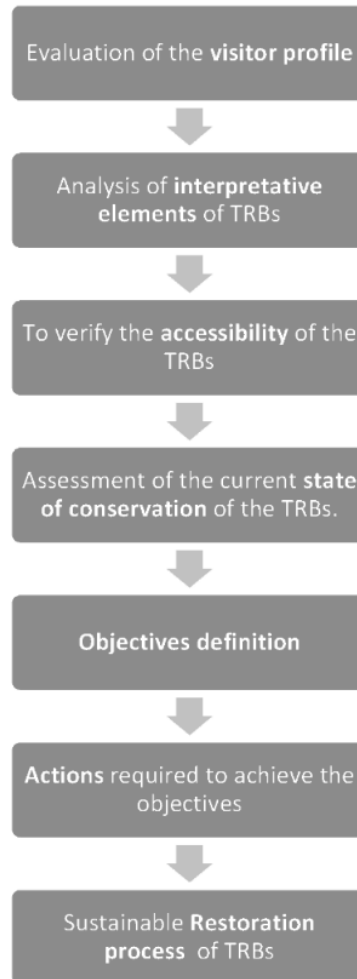


Figure 5. Flowchart illustrating the seven-phase methodology for evaluating and integrating traditional rural buildings into sustainable heritage tourism routes.

Results

Visitor Profile Assessment

This section presents the findings obtained from the visitor questionnaire survey. The results reflect tourism conditions influenced by the COVID-19 pandemic, which significantly disrupted international travel and negatively affected destinations dependent on foreign visitors. However, rural areas demonstrated greater resilience due to their reliance on domestic tourism, which experienced growth during 2020 and 2021. Understanding visitor characteristics is essential for developing heritage interpretation strategies that align with visitor expectations and enhance tourism experiences.

The survey results indicate that the majority of respondents were between 42 and 60 years old, accounting for 54.6% of participants. Most visitors were Italian nationals (84.7%), with Sicilian residents representing the largest subgroup (44.2%). These findings confirm the dominant role of domestic tourism in sustaining rural destinations during periods of global travel restrictions.

Educational background analysis revealed that visitors generally possessed a high level of education. Approximately 46% of respondents were professionals such as engineers, architects, lawyers, teachers, and academics, while 26% were employed in other professional occupations. These results suggest that the visitor segment consisted primarily of culturally oriented tourists with strong intellectual and heritage interests. The questionnaire also revealed limitations in tourism services, particularly the insufficient availability of informational brochures and professional tour guides. This deficiency contributed to shorter visitor stays, with approximately 46% of tourists remaining in the area for three days or less. These findings highlight the need to improve heritage interpretation resources and informational accessibility to enhance visitor engagement and extend tourism duration.

Further analysis showed that many visitors expressed interest in learning more about the historical and cultural significance of heritage sites within the Province of Ragusa. Rural architecture (32.0%) and gastronomy-related tourism (42.7%) emerged as the primary factors motivating visitation. Interest in rural architecture was strongly associated with appreciation of traditional rural building features, including architectural details and construction techniques (47%). Based on their demographic and motivational characteristics, many respondents can be classified as heritage tourists, who typically demonstrate strong interest in history, culture, and authentic heritage experiences (Timothy & Boyd, 2003). Additionally, transportation analysis showed that private vehicles were the dominant mode of travel, with 94% of respondents using personal transportation. This reliance reflects the limited availability and accessibility of public transportation infrastructure in rural areas.

Analysis of Interpretative Elements

The second phase of the analysis examined the interpretative characteristics of the Fegotto complex to evaluate its potential as a cultural tourism destination. Heritage interpretation plays a fundamental role in enhancing visitor engagement by connecting architectural features with historical, cultural, and social contexts (Smith, 2006). This evaluation was conducted using architectural documentation, field surveys, and SWOT analysis.

The analysis revealed that the building's architectural features reflect traditional Sicilian construction practices, characterized by the use of locally available natural materials such as limestone, wood, and stone. These materials demonstrate the integration of architecture with environmental and cultural conditions. Heritage structures serve as physical representations of cultural identity and social history, reflecting the technological capabilities and cultural traditions of their communities (Ashurst, 2007; Feilden, 2003).

Although the Fegotto complex exhibits unique architectural characteristics, including vaulted ceilings and specialized structural components, its construction methods and materials remain consistent with regional rural architectural traditions (see Figure 6 and Figure 7).

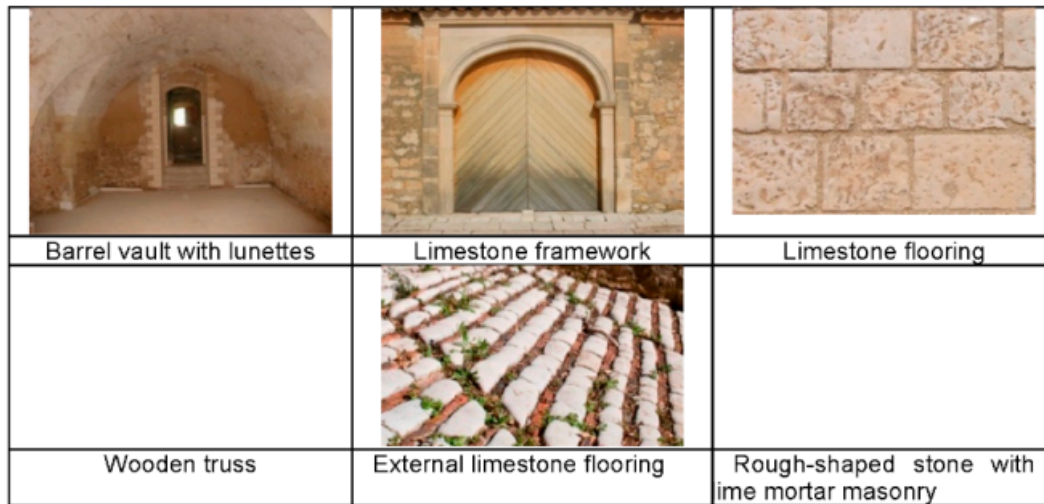


Figure 6. Example of the materials and building techniques used for Fegotto and TRBs in the surrounding area.

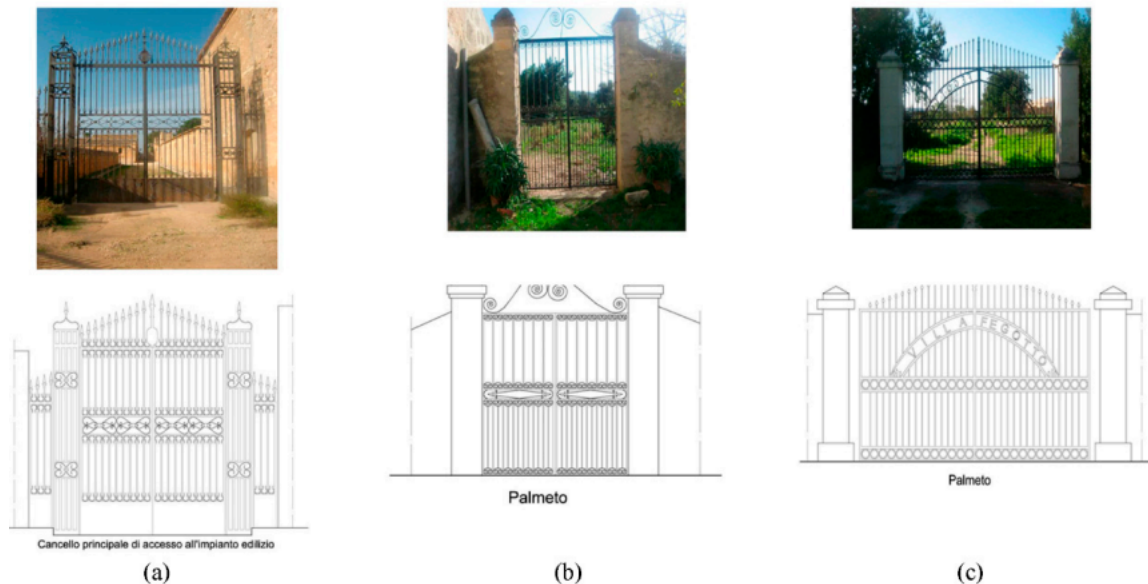


Figure 7. Examples of the interpretative elements of the Fegotto Complex; a, main access gate; b and c, access gates to Palmeto.

The primary interpretative elements identified include: Masonry construction, Limestone plaster finishes, Stone surface treatments, Vaulted structural systems, Architectural framing components, Traditional floor construction systems, Roof construction techniques and Rainwater collection and drainage systems. These elements collectively contribute to the heritage significance and interpretative value of the site.

Accessibility Assessment

The accessibility of the Fegotto complex was evaluated to determine its suitability for integration into a tourism route. The site is located within the municipality of Chiaramonte Gulfi in the Province of Ragusa. Currently, railway infrastructure is not available, as the previous railway connection was discontinued in 1949. Consequently, road transportation remains the primary means of access.

The main access routes include regional roads SS 514 and SP 6, which connect the site to nearby urban centers. However, public transportation services are not available in the immediate vicinity of the complex, limiting accessibility for tourists without private vehicles.

Despite these limitations, the site benefits from proximity to important tourism destinations. Comiso Airport is located approximately 12 km away, while Catania International Airport is located approximately 80 km from the site. Several major cultural and historical destinations, including Ragusa, Modica, Scicli, Noto, and Caltagirone, are located within accessible distances. Major heritage sites such as Syracuse and Agrigento are also reachable within regional travel distances.

Geographic Information System (GIS) analysis was conducted using Quantum GIS software (version 3.1) to evaluate transportation networks and regional connectivity. The GIS analysis illustrates road networks, major tourist destinations, and the relative location of the Fegotto complex (see Figure 8).

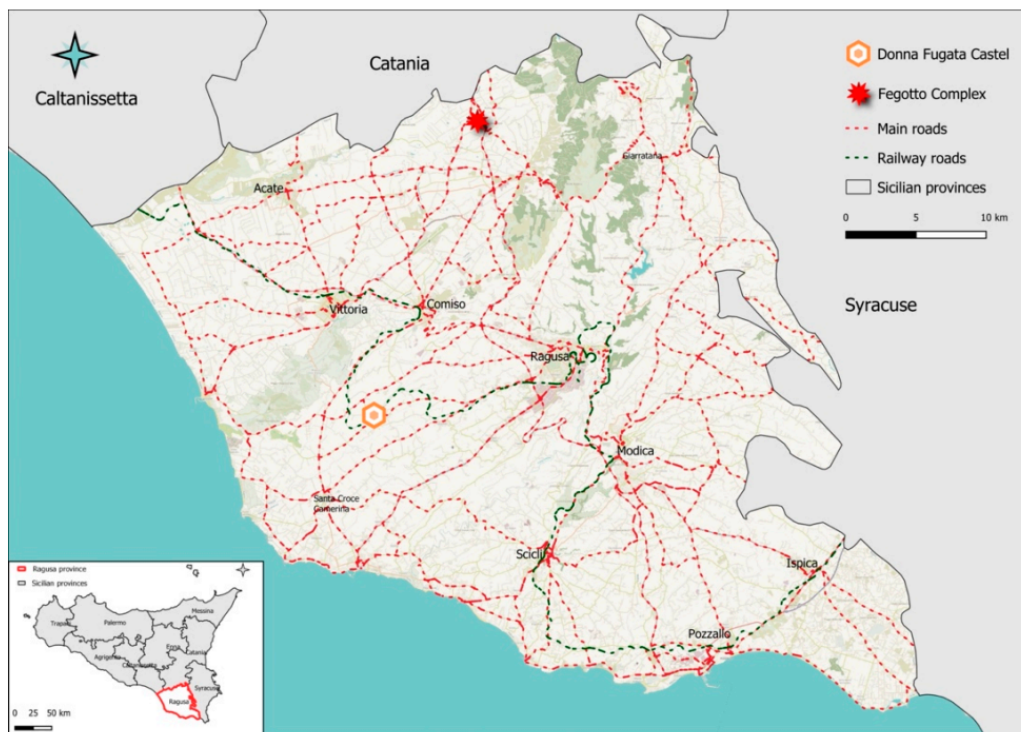


Figure 8. Main roads in the Province of Ragusa, railways, and the locations of the Fegotto site and Donnafugata Castle.

The findings indicate that limited public transportation represents a significant barrier to tourism development. Accessibility plays a critical role in tourism destination competitiveness, and destinations with limited accessibility often experience reduced visitor numbers (Page, 2009). Improving transportation infrastructure is therefore essential to enhance tourism potential and regional integration.

Conservation Status Assessment

A comprehensive architectural and structural assessment was conducted to evaluate the physical condition of the Fegotto complex. This evaluation provided essential information regarding structural integrity, preservation status, and restoration requirements. The analysis involved architectural surveys, structural inspections, and material assessments. These investigations enabled identification of preservation priorities and restoration needs while ensuring protection of the building’s historical authenticity (see Figure 9a and Figure 9b). The conservation assessment results are summarized in Table 1.

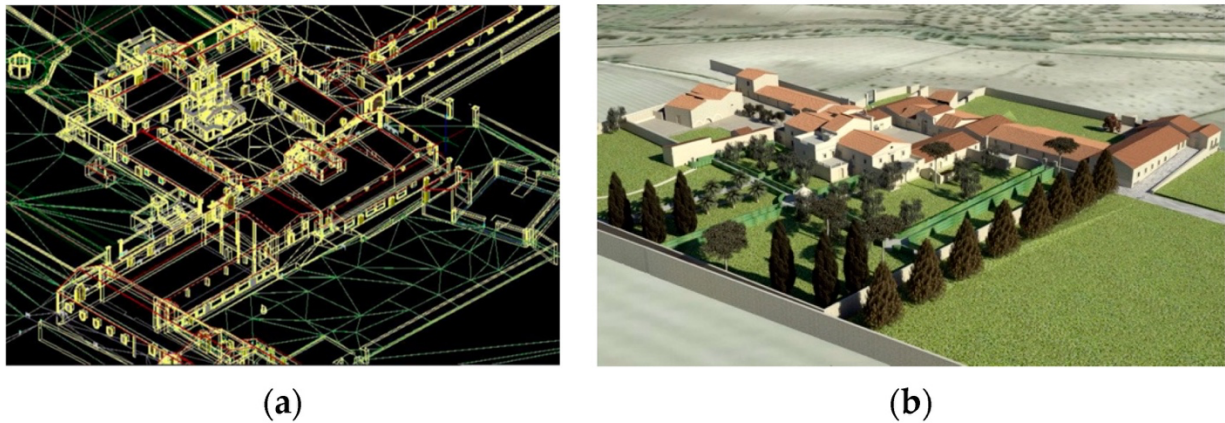


Figure 9. (a) 3d model and (b) an image of the Fegotto complex.

Table 1. Principals’ damages detected on the analyzed buildings.

Building Type	Observed Damage	Cause / Agent
Cellars	Perimetral walls	Rising humidity
Millstone (palmento)	Perimetral walls	Rising humidity
Dairy building	Perimetral walls; flooring system	Rising dampness
School	Perimetral walls; flooring system damaged	Descending humidity; infiltration of water from the damaged roof system; direct exposure to the sun; atmospheric agents
Farmworkers’ houses	Perimetral walls	Rising humidity

Definition of Objectives and Required Actions

Based on the site evaluation, adaptive reuse strategies were proposed to transform the Fegotto complex into a multifunctional cultural tourism destination while preserving its historical and architectural integrity. The proposed functions include: Storage and preparation areas for local products, Indoor wine tasting and sales facilities, Outdoor tasting areas, Wine heritage museum, Educational and interpretative spaces and Tourist accommodation facilities. The former dairy building was designated for product preparation and storage functions. Wine tasting and sales areas

were proposed within the traditional palmento structure, with a seating capacity of approximately 48 visitors. An outdoor tasting space was also proposed beneath the traditional pinnata structure, covering approximately 131 m² and accommodating approximately 20 visitors.

A wine museum was proposed within preserved sections of the palmento to showcase traditional wine production techniques and equipment (see Figure 10). Educational facilities were proposed within the former school building to support cultural interpretation, visitor education, and tourism promotion activities. Existing residential buildings formerly occupied by agricultural workers were identified as suitable for conversion into tourist accommodation facilities (see Figure 11). The proposed interventions are summarized in Table 2.



Figure 10. The indoor state of the millstone.



Figure 11. Ancient farmworkers' houses.

Table 2. Main actions scheduled.

Function	Area Useful for the Purpose	Restoration Actions Required
Preparation and storage of local products	Old dairy buildings	<ul style="list-style-type: none"> • Remaking of the flooring system • Work on the perimeter walls to prevent rising dampness • Construction of washrooms for staff and visitors
Tasting and sales	Millstone (palmento)	<ul style="list-style-type: none"> • Intervention on perimeter walls • Opening of two new windows to improve ventilation • Replacement of the existing earthen flooring system
Outdoor tasting area	Outdoor area under the “pinnata”	<ul style="list-style-type: none"> • Installation of new external flooring using self-locking bricks
Wine Museum	Millstone (palmento)	<ul style="list-style-type: none"> • Work on the perimeter walls to prevent rising dampness
Didactic activities	Ancient school	<ul style="list-style-type: none"> • Renovation of existing plaster • Cleaning of the flooring system • Recovery of existing frames to improve thermal performance
Tourists’ accommodations	Farmworkers’ houses	<ul style="list-style-type: none"> • Work on the perimeter walls to prevent rising dampness • Construction of new washrooms for each housing unit • Recovery of existing frames to improve thermal performance • Solar panel installation to improve energy efficiency

Sustainable Restoration Criteria

The restoration strategy was designed in accordance with sustainable conservation principles, emphasizing preservation of original architectural characteristics and use of traditional construction materials. Sustainable restoration aims to balance heritage preservation with contemporary functional requirements while minimizing environmental impact (Plevoets & Van Cleempoel, 2011).

The restoration approach prioritized preservation of original building materials, structural systems, and architectural features. New functions were introduced without compromising historical authenticity or architectural integrity. Natural, locally sourced, and environmentally sustainable materials were used during restoration, including wood, earth-based construction materials, and natural plasters. Renewable energy technologies, such as solar energy systems, were also incorporated to improve environmental sustainability.

The building’s original passive climate design contributed to environmental performance. Thick limestone walls provide natural thermal insulation, helping regulate indoor temperature and humidity. Thermal performance was further improved through the use of earth plaster and restoration of original construction features. This sustainable restoration strategy supports cultural preservation, environmental protection, and long-term tourism development.

Discussion

The long-term sustainability of rural landscapes is increasingly threatened by the abandonment and deterioration of traditional rural buildings and their surrounding environments. This process not only affects physical structures but also contributes to the gradual loss of cultural identity, historical continuity, and ethno-anthropological value embedded within rural communities. Sustainable rural tourism has been identified as an effective strategy to mitigate these negative impacts by promoting heritage conservation, supporting local employment, strengthening rural economies, and maintaining cultural continuity (Lane, 2009; Timothy & Boyd, 2003).

The primary objective of this study was to develop and apply a structured methodological framework to evaluate the suitability of traditional rural buildings (TRBs) for integration into existing tourism routes as sustainable cultural tourism assets. The application of this methodology to the Fegotto complex in the Province of Ragusa demonstrates its practical relevance for rural heritage conservation and tourism-based development. This approach provides both site-specific and broader implications for rural heritage management and sustainable tourism planning.

A key component of the methodology involved identifying interpretative elements capable of connecting the Fegotto complex with other rural heritage structures in the region. These interpretative elements include construction methods, architectural characteristics, environmental context, and socio-economic history. Such elements serve as essential tools for heritage interpretation by facilitating emotional engagement, strengthening visitors' sense of authenticity, and enhancing appreciation of cultural heritage (Smith, 2006; Tilden, 2007). The interpretative analysis conducted in this study primarily focused on construction materials and traditional building techniques, which represent tangible expressions of local knowledge and cultural identity. To enhance visitor understanding, interpretative materials such as bilingual educational panels could be installed at key entry points within the complex.

The visitor profile analysis conducted in this research played an important role in selecting appropriate interpretative strategies. The findings showed that most visitors were domestic tourists, particularly from Sicily, and that their travel patterns were strongly oriented toward coastal destinations. However, the results also revealed a strong interest in rural architecture and local gastronomy, indicating significant potential for expanding cultural tourism beyond coastal areas. Interpretative strategies that highlight architectural heritage, historical significance, and traditional production processes could strengthen the connection between visitors and rural heritage sites. Heritage interpretation has been widely recognized as a critical tool for transforming passive observation into meaningful and educational visitor experiences (Tilden, 2007).

Architectural analysis further confirmed that the Fegotto complex shares significant structural and material similarities with other traditional rural buildings in the region. These similarities reflect shared construction traditions and socio-economic systems historically associated with agricultural production. The existence of comparable heritage sites in the surrounding area provides opportunities to develop integrated tourism routes that connect multiple heritage locations.

One particularly relevant example is Donnafugata Castle, located approximately 30 km from the Fegotto complex. This heritage site represents an important tourism destination due to its architectural significance, cultural relevance, and accessibility. Although Donnafugata Castle differs in architectural typology, both sites share common construction materials and building techniques characteristic of traditional Sicilian rural architecture. Establishing tourism connections between these heritage sites could strengthen regional tourism networks and promote more sustainable tourism distribution. Tourism routes have been recognized as effective tools for enhancing regional tourism competitiveness while supporting rural heritage conservation (Timothy & Boyd, 2003).

Accessibility analysis highlighted transportation limitations as a major barrier to tourism development. The absence of adequate public transportation reduces accessibility and limits visitor mobility. Improving transportation

infrastructure, including the introduction of environmentally sustainable transport options such as electric shuttle services, could significantly enhance accessibility while minimizing environmental impact. Transportation accessibility is a critical factor influencing tourism destination attractiveness and competitiveness (Page, 2009).

The adaptive reuse strategy proposed in this study focused on preserving the architectural integrity of the Fegotto complex while introducing new functions compatible with cultural tourism activities. These functions include wine tasting facilities, cultural interpretation spaces, educational areas, and tourism accommodation. Adaptive reuse represents an effective strategy for preserving heritage buildings while ensuring their continued functional relevance in contemporary contexts (Plevoets & Van Cleempoel, 2011).

The territorial context surrounding the Fegotto complex also provides strong opportunities for tourism integration. The presence of numerous wineries within a 100 km radius demonstrates significant potential for developing wine tourism networks. Statistical data indicate a substantial number of wine producers in neighboring provinces, including Ragusa, Syracuse, and Enna, many of which produce certified DOC and DOCG wines (ISTAT, 2010). The integration of the Fegotto complex into regional wine tourism routes could enhance tourism diversification and support local economic development.

Additionally, the region contains numerous cultural and natural heritage attractions, including UNESCO World Heritage Baroque cities such as Ragusa, Modica, Noto, and Scicli, as well as archaeological sites such as Kamarina and protected natural reserves. These heritage resources contribute to the region's overall tourism value and strengthen its potential as a cultural tourism destination. Cultural landscapes characterized by the integration of natural and built heritage offer unique tourism opportunities and contribute to regional identity preservation (UNESCO, 2019).

Furthermore, the architectural characteristics of the Fegotto complex demonstrate similarities with historically significant rural industrial settlements such as Crespi d'Adda, which has been recognized as a UNESCO World Heritage Site. Like Crespi d'Adda, the Fegotto complex preserves important evidence of historical agricultural production systems and rural technological development. This similarity highlights the potential cultural and educational value of the site as a representative example of rural heritage preservation and technological history.

Overall, the findings of this study demonstrate that the integration of traditional rural buildings into cultural tourism routes represents a viable and sustainable strategy for heritage conservation, rural development, and tourism diversification. The proposed methodological framework provides a practical and adaptable approach for evaluating rural heritage sites and supporting sustainable tourism planning.

Conclusions

This study presented a methodological framework designed to assess the suitability of traditional rural building complexes for integration into existing cultural tourism routes, specifically the Sicilian Roads of Wine itinerary. The methodology was implemented through a case study of the Fegotto building complex, located in the municipality of Chiaramonte Gulfi in the Province of Ragusa, Sicily. The findings demonstrate that the preservation, restoration, and adaptive reuse of heritage rural buildings as cultural tourism assets can significantly contribute to the long-term sustainability of rural landscapes. Sustainable rural landscapes are characterized by balanced resource utilization, reduced environmental pressures, and the preservation of ecological diversity and cultural identity.

Food and wine tourism represent important forms of cultural tourism that contribute to the protection and revitalization of agricultural territories, particularly those associated with vineyards and traditional farming systems. Enogastronomic tourism offers unique experiential value by connecting visitors with local traditions, production methods, and cultural heritage. In recent years, the integration of cultural heritage and wine tourism has gained increasing importance, reflecting growing demand for authentic and experience-based tourism. One of the most

significant outcomes of cultural tourism development is its positive impact on local communities, including improved living standards, increased employment opportunities, and reduced socio-economic vulnerability while minimizing negative environmental and social consequences associated with rural transformation.

Cultural tourism also plays a strategic role in supporting the transition from production-oriented rural landscapes toward multifunctional rural environments characterized by sustainable land use and heritage conservation. Beyond its economic benefits, cultural tourism provides substantial cultural and social value by reinforcing regional identity, preserving traditional knowledge, and promoting community engagement. This form of tourism contributes to the economic resilience of rural regions while simultaneously reducing seasonal tourism concentration by encouraging year-round visitor distribution.

The results of this research confirm the validity of the proposed methodological framework in identifying and evaluating traditional rural buildings as potential cultural tourism destinations. The methodology offers a practical and adaptable tool that can support heritage conservation and sustainable tourism planning in rural areas. However, future improvements to the methodology should incorporate additional evaluation parameters, particularly those related to environmental and economic sustainability. These include life cycle costing (LCC), life cycle assessment (LCA), and the application of building information modelling (BIM) technologies. Integrating these approaches would enhance the ability to assess long-term maintenance requirements, environmental performance, and economic feasibility, thereby supporting more effective and sustainable reuse strategies for traditional rural buildings.

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