The Holistic, Digital Cultural Heritage Documentation of the Fikardou Traditional Village in Cyprus



Marinos Ioannides , Orestis Rizopoulos , Drew Baker , Elena Karittevli , Maria Hadjiathanasiou , Panayiota Samara , Ioannis Panayi , Marina Mateou , Iliana Koulafeti , Marios Koundouris , Kyriakos Efstathiou, George Savva , and Elina Argyridou

Abstract This paper focusses on the case study of Fikardou Village (Cyprus), a UNESCO World Heritage Tentative List monument, highlighting its unique cultural value by referencing historical evidence identified during our research. Our contribution investigates Fikardou's cultural offerings by presenting and analysing the major

M. Ioannides (\boxtimes) · O. Rizopoulos · D. Baker · E. Karittevli · M. Hadjiathanasiou · P. Samara · I. Panayi · M. Mateou · I. Koulafeti · M. Koundouris · K. Efstathiou · G. Savva · E. Argyridou Department of Electrical Engineering, Computer Engineering and Informatics, Cyprus University of Technology, UNESCO Chair on Digital Cultural Heritage, Arch. Kyprianou 31, 3036 Limassol, CY, Cyprus

e-mail: marinos.ioannides@cut.ac.cy

O. Rizopoulos

e-mail: orestis.rizopoulos@cut.ac.cy

D. Baker

e-mail: drew.baker@cut.ac.cy

E. Karittevli

e-mail: elena.karittevli@cut.ac.cy

M. Hadiiathanasiou

e-mail: m.hadjiathanasiou@cut.ac.cy

P. Samara

e-mail: panayiota.samara@cut.ac.cy

I. Panayi

e-mail: ioannis.panagi@cut.ac.cy

M. Mateou

e-mail: marina.mateou@cut.ac.cy

M. Koundouris

e-mail: marios.koundouris@cut.ac.cy

K. Efstathiou

e-mail: kyriakos.efstathiou@cut.ac.cy

© The Author(s) 2025

B. Neuts et al. (eds.), *Advances in Cultural Tourism Research*, Advances in Digital and Cultural Tourism Management, https://doi.org/10.1007/978-3-031-65537-1_10

outcomes of three H2020 EU-funded projects (TExTOUR, MNEMOSYNE, IMPACTOUR) that include Fikardou as a major component in their research programme. By elaborating on selected successful outputs such as policy interventions, new cultural tourism trends, advances in visitor management systems, and new business and/or governance models that arise from this specific case study, we argue for the advances that have been achieved in the cultural tourism sector in Cyprus, as exemplified through the experience of Fikardou Village as a developing cultural tourist destination exploring and embracing digital technology as a force multiplier in achieving its aims.

Keywords Holistic documentation \cdot Digital Fikardou Village \cdot Digital cultural heritage \cdot Cultural tourism \cdot Cultural strategies

1 Introduction

Fikardou Village is a traditional Cypriot village with rich cultural and natural heritage assets but a complex and sometimes competing set of economic, social and environmental challenges involving national, international, and local stakeholders that must be carefully balanced if the village is to capitalize on its memory and heritage resources as a sustainable cultural tourist destination. Views of Fikardou Village can be seen in Fig. 1.

Located on the southeastern slopes of the Troodos Mountain range, about thirty kilometres (30 km) southwest of the capital city of Nicosia, on the Eastern Mediterranean island of Cyprus, the origins of the village suggest its existence at least as far back as the fifteenth century. The use of the genitive case in the village's name





Fig. 1 The traditional Cypriot village of Fikardou © UNESCO Chair on Digital Cultural Heritage

G. Savva

e-mail: georgesavva@windowslive.com

E. Argyridou

e-mail: elina.argyridou@cut.ac.cy

suggests that it probably once belonged to one Tomazo Phicardo, notary to King James II during Frankish rule in Cyprus, as a feudal fief (George Jeffrey, 1918). The village is considered a genuine example of eighteenth- and nineteenth-century Cypriot folk architecture with some modifications belonging to the first decades of the twentieth century (Hegoumenidou & Floridou, 1987). In the mid-twentieth century, however, the trends of urbanization and rural abandonment led to a dramatic population decline, causing economic depression in the village, which left many properties deserted and at risk of becoming derelict. Due to its uniqueness the village was put under the supervision of the Republic of Cyprus Department of Antiquities in 1978, being listed as an "Ancient Monument" in its entirety, and a "Controlled Area" was established around the settlement to control any contemporary development in its immediate surroundings (Philokyprou & Limbouri-Kozakou, 2015). In 1984, the Department of Antiquities undertook a wide programme to revitalize the entire village, restoring collapsing houses and improving the image and infrastructure of Fikardou. Owners of private dwellings received generous state subsidies for the restoration and rehabilitation works they made. Aiming at high-quality protection and management of the heritage components that constitute its uniqueness the village was included on the UNESCO World Heritage Tentative List¹ in 2002.

2 Fikardou—The Challenge of Multimodal Heritage Use

2.1 Fikardou as a UNESCO World Heritage Tentative List Site

The entire village of Fikardou has been placed on the UNESCO World Heritage Tentative List² (UNESCO-WHTL), an inventory of those properties which each State Party intends to consider for nomination for inscription. States Parties are encouraged to nominate national properties that they believe to be of "exceptional universal value" in terms of their cultural and/or natural heritage but must comply to *The UNESCO Operational Guidelines for the Implementation of the World Heritage Convention criteria for the assessment of Outstanding Universal Value*,³ and satisfy at least one of the ten selection criteria.

Fikardou was nominated by the Republic of Cyprus Department of Antiquities under the Ministry of Communications and Works. It describes Fikardou as an "excellent example of a traditional mountain settlement, which has preserved its eighteenthand nineteenth-century physiognomy and architecture, as well as its natural environment", echoing the UNESCO sentiment "The main aesthetic quality is the integrity

 $^{^{\}rm 1}$ The rural settlement of Fikardou, Tentative Lists, UNESCO World Heritage Convention.

² https://whc.unesco.org/en/tentativelists/1673/.

³ https://whc.unesco.org/en/guidelines/.

and authenticity of the village, in complete harmony with its environment". Fikardou Village embodies four of the ten section criteria as follows:

- to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning, or landscape design;
- to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;
- to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
- to be an outstanding example of a traditional human settlement, land-use, or seause which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

2.2 Fikardou as a Cultural Heritage Resource

Due to its cultural, historical, and aesthetic value, the village has been the case study of academic papers, publications, and European projects. The village is one of the few examples left of a traditional settlement in Cyprus which has remained unspoiled over time and preserved elements and architectural features that demonstrate the traditional Cypriot way of life.

The architecture of the village is a representative example of Cypriot rural settlements during the eighteenth and nineteenth centuries (Philokyprou & Limbouri-Kozakou, 2015). The structures are small, unique and simple, constructed with local materials such as solid "iron" stone (*sieropetra*), pebbles, limestone slabs and mudbricks for the walls, and olive wood for the roof. Pine shingles and locally made tiles are the main components of sloping roofs, however most dwellings have flat roofs (known as *doma*), serving domestic functions notably the drying of grapes, pulses, and other products. Houses usually have two floors; the upper floor where the family would traditionally have lived, while the ground floor rooms were used for stabling animals and storing agricultural products.

At the northern edge of the village, two of the most important domestic structures can be found, the House of Katsinioros and the House of Achilleas Demetri, so named for their last owners. George Jeffrey (1918) wrote about them in 1918: "The House of Achilleas Demetris is also a representative example of 19th architecture in Cyprus, but it differs from the other houses in terms of construction, due to the incorporation of huge stones within the wall". Because of their architectural value, both houses are listed as "Ancient Monument Schedule A", meaning that they are state property and both were restored by the Department of Antiquities between 1984 and 1986 with a grant from the A.G. Leventis Foundation. The two buildings subsequently became

⁴ https://www.leventisfoundation.org/.





Fig. 2 Images of the Houses of Achilleas Dimitri (left) and Katsinioros (right) © Department of Antiquities

part of the Local Rural Museum project and received the Europa Nostra International Award recognizing outstanding heritage conservation initiatives (PIO, 1987).

Traditional monuments of Fikardou Village, like the House of Katsinioros and the House of Achilleas Dimitri, can be seen in Fig. 2.

Other notable buildings include a large winepress (*linos*) and the Church of Apostles Peter and Paul. The wine press was still operational until the second half of the twentieth century as a community cooperative, both the pressing mechanism and the large clay jars used to store wine are still preserved. The church built between the seventeenth and eighteenth centuries is a small, single-aisle church with a wooden slopping roof and walls built with local stones and a bell tower to the northeastern corner.

Although Fikardou is currently a quasi-abandoned settlement with only a handful of remaining permanent residents, the village has become a significant tourist attraction. While the cultural and natural heritage of the village and its surroundings are the predominant factors for tourism, Fikardou is more than an open-air museum. Contributing to the touristic offering is the active participation of Fikardou in the recent popularity and growth of organized traditional festivals promoting both local and national cultural heritage. For example, most recently Fikardou was awarded the best Christmas Village 2022–23 by the Cyprus Hospitality Awards of the Deputy Ministry of Tourism, a highly competitive and prestigious award.

2.3 Fikardou as a Cultural Tourist Destination

According to the United Nations World Tourism Organization,⁵ cultural tourism is "movements of persons for essentially cultural motivations such as study tours, performing arts and cultural tours, travel to festivals and other cultural events, visits to sites and monuments, travel to study nature, folklore or art, and pilgrimages".

⁵ https://www.unwto.org/.

Although tourism has great potential to promote a destination, attract visitors to study and learn about its cultural heritage and increase local revenue, some local communities and heritage experts are sceptical about tourism and possible negative impacts due to overcrowding, noise pollution and other nuisances, nature destruction, cultural appropriation, littering, and loss of authenticity, the very things that Fikardou wishes to guard against.

The IMPACTOUR project addresses sustainable cultural tourism as "integrated management of cultural heritage and tourism activities in conjunction with the local community creating social, environmental, and economic benefits for all stakeholders, to achieve tangible and intangible cultural heritage conservation and sustainable tourism development". To this extent, cultural tourism is about managing cultural heritage and tourism in an integrated way, working with local communities to create benefits for everyone involved. To ensure that both cultural heritage and the local community benefit from the channelling of tourism to the site, it is essential to include local stakeholders and communities in the decision-making processes. The goal is to integrate sustainable cultural heritage, tourism activities, and local communities, resulting in a greener environment, a healthier economy, and happier people. Finding the proper balance between the economic, social, and political aspects of tourism has been gaining importance.

3 e-Fikardou—Implementing a Digital Cultural Strategy

3.1 e-Fikardou—Creating the Platform

Managing and maintaining the demands of protecting heritage assets while promoting and supporting tourism, requires cooperation and constant dialogue with local communities, national and international agencies and, of course, tourists themselves, is essential if all parties are to benefit from cultural tourism. The TExTOUR project aims to establish pioneering, sustainable cultural tourism strategies to improve deprived areas in Europe and beyond. It further seeks to recognize difficulties, establish cooperation between regions and countries, and integrate the generated knowledge into a platform. The TExTOUR project team at CUT is working on a collaboration with Fikardou (one of the eight pilot sites in the project) to create a digital platform for the village. Named eFikardou.eu, 6 the platform showcases applications presenting Fikardou's tangible and intangible cultural heritage, allowing the wouldbe visitor to plan their visit and be informed of its significance as a UNESCO-WHTL, seasonal events and responsible tourism. The platform includes 3D models, 360° Tours, Virtual Reality (VR) Tours, a Virtual Gastronomy Lab, e-books, images, and storytelling. Notably, the platform features a 3D model of the entire digitized village, its monuments and historical objects. Furthermore, it embodies the holistic

⁶ https://efikardou.eu/.

digital documentation and archiving of the village's intangible cultural heritage, its related data, metadata, and paradata—the "Information about human processes of understanding and interpretation of data objects" (Denard, 2009).

Considering the different types of user needs, the team organized several workshops to produce valuable results and choose actions to be implemented. The team invited stakeholders, interested parties, and locals to participate and share their thoughts. A standout element of these workshops was that people who would have otherwise been passive "end-users" were offered the opportunity to be actively engaged in the decision-making process. This upgrade from end-users to decision-makers has been crucial in allowing the stakeholders to shape the development of the e-Fikardou platform, most notably for the local community, allowing them to decide the scale and form of impact on the local economy and market. Given that, currently, the Fikardou community generates zero revenue from tourism, it is a new opportunity for the village to decide what kind of incentives to offer in order to attract the desired types of visitors, investors, and businesses, and to what degree they wish to engage in economic ventures. It also presents an opportunity for Fikardou to reach out to its diaspora and invite them to return and bring life back to the village.

One of Fikardou's prime cultural elements is the harmony of the village with its natural environment and the advancement of the village must be approached strategically in order to protect this asset. The actions chosen in the framework of TExTOUR project in collaborating in the Fikardou pilot supported this requirement and formed the basis for developing the e-Fikardou platform. The e-Fikardou platform serves as a vessel for collected data and generated knowledge designed to offer a unique, integrated experience (and at the same time to educate users) and engagement with Fikardou's tangible and intangible cultural heritage. Moreover, the platform supports policymakers and practitioners in assessing cultural tourism strategies, services, and facilities as the sector develops within the village.

The platform incorporates educational content, an interactive e-book (Fig. 3), and a downloadable application from the Fikardou e-Gastronomy Lab (Fig. 4). The virtual gastronomy lab has been developed under the guidance and cooperation of the creators of the Cyprus Food Museum which is the first of its kind worldwide. Additionally, the platform includes VR Tours of the entire digitized village with the ability to access fully digitized points of interest (POIs) (Fig. 5). Additionally, the creation of the BIM (building information modelling) model is in progress (Fig. 6). Also, the 360° Tour application links the various location points from the digitization laser scan results and ultimately allows the user to navigate through the village from point to point, as can be seen Fig. 7. The 360° Tour is also compatible with the VR experience.

Among others, the e-Fikardou platform includes the following characteristics:

- **Shareability**: By integrating links and downloadable apps within the e-platform content and creating a platform readable in multiple formats with multilingual menus.
- **Functionality**: Integrating the generated knowledge into the platform to boost cultural tourism and support policymakers and practitioners.



Fig. 3 Images of the interactive e-book © UNESCO Chair on digital cultural heritage



Fig. 4 Screenshots of the virtual gastronomy lab at the house of Katsinioros © UNESCO Chair on digital cultural heritage



Fig. 5 $\,$ 3D dense point cloud from drone photogrammetry @ UNESCO chair on digital cultural heritage



Fig. 6 Creation of the BIM model using as base the point cloud of terrestrial laser scanner and drone © UNESCO chair on digital cultural heritage



Fig. 7. 360° Tour images from the inner layout of the village © UNESCO chair on digital cultural heritage

- Usability: By incorporating User Interface (UI)/User Experience (UX) components. The user is guided by recognizable icons and titles, with a practical and easily readable menu interface.
- Accessibility: By offering the opportunity to people who cannot travel to the site and to people with disabilities to experience Fikardou through a faithful Virtual Tour designed in collaboration with the Office of the Commissioner for Administration and the Protection of Human Rights (in its capacity as the competent authority for the protection and inclusion of persons with disabilities).

3.2 e-Fikardou—Holistic Heritage Digitization and Documentation

The process of holistic digitization and documentation of the movable and immovable tangible cultural heritages of Fikardou Village is crucial for the protection, preservation and renovation of the village and is based on the research outputs of the EU Study VIGIE2020/654 (Commission, 2022). Additionally, the 3D digitization process can significantly improve the accessibility of the unique cultural heritage of the village for research, innovation, education, and enjoyment. Digitized 3D cultural heritage tangible objects can be used in several ways such as.

• High-quality 3D scans and records can be used by archaeologists and engineers in conservation, protection, and conditional/structural assessment.

- Data of medium quality for 3D printing are extensively used in the creative industry sectors such as the games industry, XR applications, and education.
- Low- and/or high-resolution 3D structures are delivered through online platforms, repositories, and infrastructures to facilitate the work of scholars, archaeologists, museologists, historians, architects, engineers, multidisciplinary researchers/ experts, and students.

The Study lays out clear guidelines and best practice in how to conduct a digitization campaign for cultural heritage and considers the wider implications of quality, complexity, and stakeholder requirements that are vital if the created "digital twin" is to be of maximum use and impact across multiple use cases as a trusted and authentic representation of cultural heritage assets. This is the fundamental principle behind the holistic documentation of cultural heritage and the MNEMOSYNE methodology.

3.3 e-Fikardou—Taxonomy of Holistic Documentation

Fikardou Village's monuments and environment as well as its embedded intangible aspects and features were examined using the MNEMOSYNE project methodology for the holistic documentation and digitization of tangible cultural heritage. The project developed an integrated taxonomy for the tangible cultural heritage assets of the village supporting the representation of movable/immovable heritage, the complexity of heritage assets and the embedded nature of intangible heritage assets within the context of the Fikardou study. The proposed taxonomy divides heritage into tangible and intangible components, with a focus on creating a class for tangible heritage. By dividing these two categories, it will be possible to determine where intangible heritage can be recognized, how it interacts with tangible heritage, and how this detailed information can be integrated into this system.

In its most basic form tangible cultural assets can fall into one of two categories, namely, movable or immovable (Fig. 8). Classifications beyond this simple division, however, become more complex as definitions become refined and progressive classification is a major challenge. The subcategories are distinguished by various difficulties and levels of complexity that have been recognized and handled in various ways. Although there may be an overlap between the categories—even at the movable/immovable classification level—they should be considered separately before expanding the wider knowledge system that is available for each object, monument, and site of Fikardou.

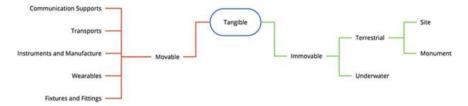


Fig. 8 Classification of tangible heritage class into the movable and immovable cultural heritages of Fikardou village

The following standards are used to categorize movable objects:

- function which refers to an asset's technical capabilities;
- form which refers to the typological categories of an asset;
- *subject type* which describes a particular use or purpose of an asset that distinguishes it from another physical form with similar physical characteristics;
- material/technique which refers to the physical characteristics of the asset relating to its creation or manufacture, including its material(s) and production technique(s), where those are discernible;
- location or context which serves as a crucial connecting point between tangible and intangible heritages, as well as the heritage of both movable and immovable objects, and emphasizes documenting the asset's temporal and physical provenance;
- state and condition which covers the asset's entire lifecycle, pre- and postdepositional.

Furthermore, monuments can be classified according to:

- 1. *feature* depending on the spatial–temporal variables, rooted in the general environment;
- 2. *significance* intended as the main function attached to the monument and how it related to the human social economic context (e.g. storage, cultic, etc.);
- 3. (3a) *components* partitioned into two categories, namely, space, which can be delimited (indoor) or not (outdoor) (3b) *built elements* referring to the parts composing a specific structure depending on the segmentation of the space they provide.

The village can be categorized by using a general taxonomic system based on The Getty Vocabularies, within the classes of "Tangible", "Immovable", "Terrestrial", "Site", "Function", and "Residential", to "villages" the indicative type for Fikardou as a cultural heritage asset (Fig. 9). Furthermore, the data and information needed to record the tangible facet of this cultural heritage asset are represented in classes such as "Elements" and "Materials". The "Elements" taxonomy of the village includes the historical monuments of the village such as the church, winepress, museum, and

⁷ https://www.getty.edu/research/tools/vocabularies/aat/index.html.

Fig. 9 Conceptualization of holistic documentation regarding Fikardou Village



traditional houses. Finally, "Materials" taxonomy refers to the physical characteristics of the asset relating to its creation and manufacture, including its materials and production technique, where those are discernible.

The intangible information of the asset is recorded in the class "Context", which includes general and historical information about Fikardou Village.

Subsequent branches can be added to the class tree increasing the complexity of the representation but deepening the understanding and interrelationships between the components of the assets. Further details of these taxonomies for Fikardou Village are available for the Fikardou case study from the MNEMOSYNE project.⁸

⁸ https://erachair-dch.eu/case-studies/.

3.4 e-Fikardou—Creation of a User Classification

As noted previously a vital component to implementing the cultural strategies chosen to support Fikardou was the inclusion of parties at all levels of investment in developing the village as a cultural heritage asset, from UNESCO to the Department of Antiquities to residents of Fikardou and the wider community diaspora. The MNEMOSYNE methodology considers all stakeholders, or asset users, to be part of the documentation process classifying and categorizing these them based on their needs and backgrounds. This is in part supported by the taxonomy which can be used to assist in identifying missing stakeholders and engaging them with the project dialogue.

The first step of this classification is to define interdisciplinary user groups, their members, and identify users' knowledge of cultural heritage. The main criteria by which users are displayed are informational needs (general, educational, trade visitors), expertise (domain expertise and technical expertise), and motivations (curiosity, work, planning visits, pleasure, captive, and non-captive learning). These categories distinguish previously identified groups and provide a way to introduce specific categories of users whose contribution is frequently underestimated or not considered at all (e.g. the hobbyist).

Figure 10 shows the four main identified categories, based on their area of expertise and knowledge with corresponding subcategories. We note that experts are also involved as users. The four main categories are.



Fig. 10 The multidisciplinary community of experts and users involved in the documentation and knowledge of Fikardou Village

• *experts* with domain and technical expertise in this particular area, e.g. historians, geographers, and geologists;

- *case study experts* with empirical knowledge and studies of this domain, e.g. curators, archaeologists, architects, surveyors, civil engineers, and IT specialists;
- *non-experts* who are motivated by this particular area, e.g. students, tourists, guides, policymakers, decision-makers, the general public, the tourist industry, and creative industries:
- *case study users* who are involved in the use and reuse part of the process, e.g. educators and multimedia experts.

3.5 e-Fikardou—Data Acquisition and Digitization Pipelines

While the documentation process, taxonomy and user classification are vital in defining the problem domain (what needs to be digitized, who are the stakeholders, how will the results be used, etc.), it does not inherently address the practicalities of data acquisition actualization. EU Study VIGIE2020/654 (European Commission, 2020) establishes best practice in data acquisition both in terms of planning a digitization campaign and in the recording of paradata as part of the holistic documentation and digitization process. The MNEMOSYNE method implements these guidelines allowing the objective measurement for the confidence and credibility in produced data, metadata, and paradata described by the fundamental parameters of Complexity and Quality.

The complexity of 3D data acquisition is determined by multiple factors that can be evaluated and assigned a confidence weighting; for example, software and hardware are evaluated based on reliability, operability, compatibility, maintainability, security, etc. A more specific evaluation can be undertaken as necessary, in the case of hardware based on license availability (i.e. frequencies, interferences with other systems), the precision of multisensory systems under different environmental conditions, the usability (i.e. communication, transfer of data, battery life, available storage), the efficiency (i.e. speed of data and accuracy), and sensor integration. These groupings and subcategories, including their rationale and evaluation criteria, can be found within the Study (European Commission, 2022).

Figure 11 shows the resulting general radial chart for the evaluation of the complexity of digitizing Fikardou Village, with categories highlighted to indicate the expected effort and estimated impact of these factors and contribution to complexity from each subcategory within a particular group.

The MNEMOSYNE methodology aligns itself with the position expressed by the Expert Group on Digital Cultural Heritage and Europeana (European Commission, 2022) that "Quality in 3D digitisation of cultural heritage is not only about capture accuracy and resolution, but also about other key aspects such as historical accuracy, range of data and metadata generated and collected, and fitness for purpose". The

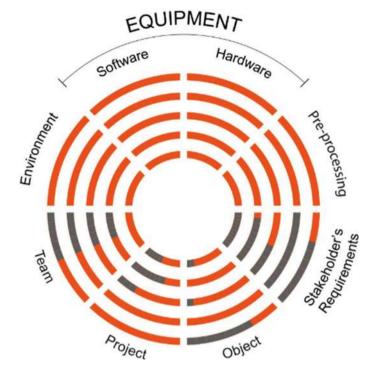


Fig. 11 Radial chart describing the complexity parameters for Fikardou Village

methodology therefore records the wider aspects of quality in regard to the documentation of the project, not in the fidelity of 3D data output (although it may be indicative of high-fidelity results).

In a similar approach to the quantification of complexity, the quality parameters' documentation types are grouped according to recording type/task with subcategories for specific parameter weighting. For example, when considering the recording of Materials this is broken down into individual parameters like yield, fatigue, tensile or toughness. These parameters in turn may be directly or indirectly, singly or collectively, engaged with the overall quality of the digitization process in response to the complexity imposed by the properties of the concerned material(s), i.e. chemical composition, moisture, corrosion, carbonation, resistance, and porosity which refer to the layers of the material parameter. These groupings and subcategories, including their rationale and evaluation criteria, can be found within the Study (European Commission, 2022).

The resulting quality of the digitization for Fikardou is described in Fig. 12.

The 3D digitization process necessarily varies according to the heritage asset under consideration (as described through the taxonomy), the processes and methods utilized during the acquisition (the complexity parameters), the physical disposition of the asset (the quality parameters) and the potential uses or purposes of the produced

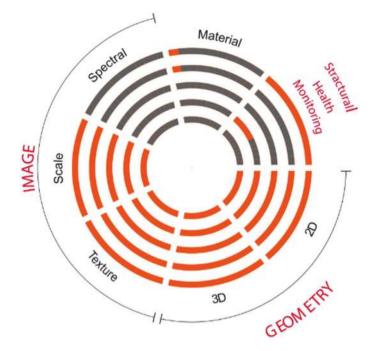


Fig. 12 Radial chart describing the quality parameters for Fikardou Village

material (identified during the user classification). Taking all of these into consideration, if the criteria set by the parameters are achieved, the confidence in the results of a digitization campaign and the resulting data capture's fidelity as a faithful and complete record of a cultural heritage asset is increased within the given (and known) constraints.

In the case of Fikardou Village, having holistically considered the digital documentation of the site provided a ground truth on which to base confident, informed and appropriate decision-making (based on the strategies/actions developed in the IMPACTOUR and TEXTOUR projects) in collaboration and engaging with all stakeholders at the appropriate level, and ultimately the realization of the e-Fikardou platform, its content and digital cultural tourism offering.

4 Conclusion and Future Plans

This paper has presented the case study of Fikardou Village, a UNESCO Tentative List monument, as a successful example of cultural tourism advancement. The three European projects that include Fikardou in their work plan have decidedly set the pace for opening new routes in experiencing tourism in Cyprus. Nevertheless, already plans are in place to further the objectives of each one of the projects and to establish

new lines of inquiry. Specifically, in the context of the TExTOUR project, the CUT team aims to digitize the cycling and walking routes and experiences in and around the village recording and mapping of the routes for accessible tourist activities.

Figure 13 shows the first stage of the mapping process in KML format and integrated into Google Earth. When all stages of the process are completed, the results will be fully integrated into a geoinformatics platform with applications for cyclists, hikers, and visitors. Moreover, such athletic excursions can be combined with experiencing the surrounding nature or a visit to the village to experience its traditions and gastronomy through touristic scenarios and available workshops. The village seeks to capitalize on this and establish a Cycling/Hiking Centre to organize and host sports events, to create local accommodation for visitors, as well as introduce modest commercial activity through bike rentals.

As part of the wider commitment to revitalize the village and stimulate the local economy, the CUT team, in collaboration with the Department of Antiquities and the Community Council of Fikardou, has been working on creating incentives for renovating the buildings to attract former residents back to the village or to rent them to new people who wish to enjoy the lifestyle that Fikardou now offers. Alternatively, given the increased tourist activity in the village, there is interest in how buildings may serve visitors as shops run by local owners or as potential rentals. The next step

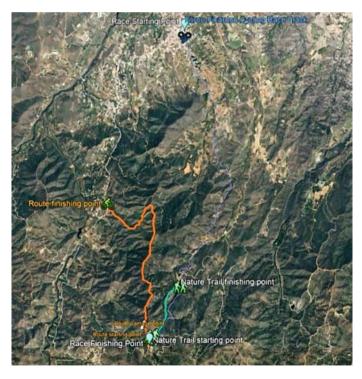


Fig. 13 Fikardou-Kalo Chorio cycling/hiking routes mapping KML

is to organize a pan-community gathering, bringing together village residents and property owners who may not reside in Fikardou, to inform them of these incentives and opportunities.

Finally, the project co-designs pioneering and sustainable cultural tourism strategies to improve deprived areas in Europe and beyond. This framework contains provisions for the creation of a roadmap of cooperation around cultural heritage and tourism between Fikardou, Cyprus and Anfeh, Lebanon. Anfeh and Fikardou share important similarities; both are placed on the Tentative List of the UNESCO World Heritage, and both present a harmonious relationship between the built and the natural environment, enabling a perspective of the cultural landscape. A milestone of this cooperation has been the signing of a Memorandum of Understanding (MoU) between the municipalities of the two cultural sites. This MoU signifies a remarkable partnership between an EU and a non-EU member for regional development and sets a new precedent for furthering cultural diplomacy in the Eastern Mediterranean and the Middle East, allowing for the interaction of peoples, the exchange of language, religion, ideas, arts, and societal structures, thus forming and/or strengthening relations between divergent groups. The Levantine Basin has always been an epicentre of interaction, not only regarding trade in goods, but importantly, regarding the exchange of ideas, values, traditions, and other aspects of culture or identity, whether to strengthen relationships, enhance socio-cultural cooperation, promote national interests and beyond. Hence, the cooperation between Fikardou and Anfeh re-establishes long-standing traditions and shared history of the region.

The goal is to design and set up a roadmap for the development of long-term sustainable cooperation between the two regions, including the local communities, as well as local and regional policymakers and stakeholders. Resources from the two sites include local agriculture and gastronomy, art and crafts, literature and music, and underwater, urban, and natural sites of historical, religious, and archaeological significance. This aims to introduce local tourism exchange, widening of regional professional networks, knowledge exchange, commerce and trade on local products.

Acknowledgements *IMPACTOUR* has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 870747.

MNEMOSYNE project has received funding from the European Union's H2020 Framework. Programme for research and innovation under Grant agreement no. 810857

TEXTOUR has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no.101004687

EU VIGIE2020/654 Study at the request of and financed by the European Commission, Directorate-General of Communications Networks, Content & Technology VIGIE 2020/654.

Special thanks to the excellent cooperation with the Community Council of Fikardou and the Cyprus Department of Antiquities which is responsible for the management of the archaeological heritage of Cyprus. The settlement of Fikardou has been under the supervision of the Department since 1978, as an "Ancient Monument" in its entirety, and within a "Controlled Area".

⁹ Anfef, Lebanon.

References

- Denard, H. (ed). (2009). *The London Charter for the Computer-Based Visualisation of Cultural Heritage*. London, [Online]. Retrieved from https://www.london-charter.org/.
- E. Commission. (2022). Directorate General for Communications Networks, and Technology, Study on quality in 3D digitisation of tangible cultural heritage: mapping parameters, formats, standards, benchmarks, methodologies, and guidelines: executive summary. Publications Office of the European Union. https://doi.org/10.2759/581678.
- European Commission, Expert Group on Digital Cultural Heritage and Europeana. (2020). Basic principles and tips for 3D digitisation of tangible cultural heritage for cultural heritage professionals and institutions and other custodians of cultural heritage. Luxembourg [Online]. Retrieved from https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=69201.
- George Jeffrey, F. S. A. (1918). A description of the historic monuments of Cyprus. Studies in the archeology and architecture of the Island. Nicosia: Governing Printing Office, Nicosia, Cyprus [Online]. Retrieved from http://www.archive.org/details/cu31924028551319.
- Hegoumenidou, F., & Floridou, A. (1987). *Phikardou: A traditional village in Cyprus*. Nicosia: Chr. Nicolaou and Sons Ltd, A.G. Leventis Foundation, Dept. of Antiquities.
- Philokyprou, M., & Limbouri-Kozakou, E. (2015). An overview of the restoration of monuments and listed buildings in Cyprus from antiquity until the twenty-first century. *Studies in Conservation*, 60(4), 267–277. https://doi.org/10.1179/2047058414Y.0000000136
- PIO. (1987). Houses in Fikardou Village are selected for Europa Nostra's certificate of value. Press and Information Office, 3.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

