# The Emergence of the Obscured: A Study of Abandoned Villages in Paphos District

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Abstract. The present research focuses on abandoned villages in Paphos, Cyprus - an area with the highest concentration of such settlements on the island. The study aims to identify and recognise these deserted villages, analyse the reasons for their abandonment and evaluate their historical and cultural significance. By examining population data, maps and archival resources spanning 1881 to 2011, the research offers a detailed understanding of the district's evolution and the challenges these areas face today. Moreover, it reveals a complex interplay of factors driving abandonment, including urbanisation, economic hardship, isolation, environmental degradation, as well as historical and political events. This multifaceted approach highlights the unique cultural and social dimensions of these abandoned settlements', positioning them as vital elements of Cyprus's heritage. Methodologies such as demographic analysis, geographical mapping and comparative research with earlier studies offer actionable insights. These findings underscore the urgent need for legislative reform and interdisciplinary collaboration to protect and preserve the settlements. By offering a holistic view of the abandonment phenomenon, the research provides a framework for developing effective management strategies that can be applied both locally and internationally. The ultimate goal is to safeguard these invaluable cultural assets for future generations.

Keywords: Cultural Heritage, Traditional Settlements, Abandoned Villages

### 1 Introduction

### 1.1 Introductory Concepts

The phenomenon of abandoned settlements has garnered growing attention in the fields of cultural heritage, landscape studies, and rural development. Socio-economic transitions, environmental degradation, and political instability contribute to rural depopulation [1]. Such observations are made in recent scientific studies [2] which refer to rural areas in Europe. These areas host more than 55% of the total population and encompass a unique and distinctive cultural and natural heritage. However, they are now facing common issues of disengagement, depopulation and economic and social

crises. This phenomenon of decline was also observed by many authors in a considerable number of rural areas in many Mediterranean regions [3].

At the same time, abandoned villages are increasingly recognised as symbolic land-scapes that embody cultural memory, collective identity, and spatial continuity [4]. In the Mediterranean context, traditional rural settlements reflect complex histories shaped by demographic shifts, land-use change, and historical events [5]. The role of traditional villages around the word as important carriers of both tangible and intangible cultural heritages - including historical narratives and folk customs of different times and regions - is underlined in many studies [6]. The value of traditional rural settlements is reflected in the authenticity of the architectural form and building materials, as well as in the continuation of their useable value, their ecological notion, the harmony between man and nature, and their economic potential [6]. These academic perspectives underline the importance of understanding abandonment not only as a loss, but also as a potential for heritage awareness, identity continuity and sustainable planning. Within this framework, the present study contributes to the growing discourse on cultural land-scapes in transition.

According to scientific studies [7], important characteristics of vernacular settlements disappear due to the lack of value awareness and inappropriate policies. In the past, the value identification of traditional villages mostly stayed in the general value description, which was not enough to highlight the unique overall value of each village. Now, a new attempt has been made [7] to identify the value of traditional villages as lying in the combination of object value and subject perception. This approach is considered more conducive to the scientific formulation of protection and sustainable development strategy.

Many studies [8] focus on the conservation and rehabilitation of vernacular settlements as a crucial aspect of cultural heritage, emphasising their unique characteristics and their connection to local identity. They also explore the concept of sustainable living heritage conservation through community-based approaches. It is argued [8] that sustainable heritage conservation is not just about preserving physical structures, but also about empowering communities, fostering cultural identity and promoting sustainable development. The need for conservation practices that balance the protection of heritage with the needs of present and future generations is also highlighted [8]. Heritage conservation can be a catalyst for socio-economic development by creating opportunities for tourism, local crafts, and cultural industries.

In order to reverse the depopulation processes of vernacular settlements different approaches are suggested in the literature [3]. These include the need to foster an interrelationship between the top-down and bottom-up approach through collaborative governance, to minimise ongoing depopulation and territorial dislocation, and leveraging potential synergies between available resources to ensure viability of the initiatives and provide visitors a high-quality experience. Recent research findings [2] show that participatory processes can attract local communities and engage them into the development and the implementation of local regeneration plans, fostering heritage ownership and inclusion.

Despite growing interest in the topic, the case of Cyprus remains underexplored in international literature, particularly in relation to transdisciplinary heritage approaches.

There is only a limited number of studies dealing with the documentation and evaluation of abandoned villages. The most important work is the documentation of abandoned settlements by Gilles Grivaud [9] which will be discussed in detail in this paper. More recent studies were carried out by M. Yioutani Iacovides, who proposed a distinction between 'rehabitable' and 'non-rehabitable' settlements in Cyprus, underlining their symbolic and use/social values. In their investigation, Vionis and Papantoniou [10] argue that rural abandoned spaces in Cyprus preserve their historic memories and identity. Within this framework, the present study contributes to the growing discourse on cultural landscapes in transition.

To explore these ideas in a concrete context, this research focuses on the region of Paphos in Cyprus - a district marked by a high concentration of abandoned villages that embody many of the characteristics described above. Located at the westernmost edge of Cyprus, Paphos is a region rich in history, culture and traditions (see Fig. 1). While its urban centre attracts significant attention, the district also holds a quieter narrative – that of its abandoned villages. These settlements, which once thrived as vibrant hubs of community life, now bear marks of the social and economic transformations that influenced their fate, reflecting the evolution of their societies.

The term 'abandoned settlement' as used in this paper refers to areas that are either entirely uninhabited or only have a few remaining residents. Although the exact population threshold defining such a settlement is not established in the literature, a gradual and dramatic decline in population is a critical criterion [11]. The specific term can sometimes refer to areas that remain inhabited, but with a significantly smaller population than in previous years. The perpetuation of abandonment results in 'dead' places, creating discontinuities and other issues related to the prolonged non-use of the respective space [11].

The abandonment of these villages in the Paphos area extends beyond the cessation of human presence. It disrupts cultural continuity, threatening the collective memory that these spaces embody. Yet, such settlements continue to serve as vital carriers of cultural identity, with their architectural design, spatial organisation and traditions representing the legacy of their communities. Preserving these spaces requires more than physical restoration. Revitalising previous activities, where feasible, can support sustainable development and ensure the protection of cultural heritage. This paper highlights the significance of these villages and emphasises the urgent need for coordinated preservation efforts, using the district of Paphos as a case study to explore these broader implications.

Fig. 1. The island of Cyprus. Case study of the Paphos district

#### 1.2 Abandoned Villages as Keepers of Cultural Memory

Paphos has the highest number and concentration of abandoned settlements in Cyprus, making it a significant area for research into the phenomenon of abandonment. These settlements remain active carriers of cultural and historical memory, reflecting the development of the societies that once flourished within them.

Each village retains its unique identity through its architecture, spatial layout and longstanding traditions. These elements collectively contribute to the cultural memory of the region, harmonising natural heritage with the distinct character of each community. This diversity is evident in the variety of villages across Paphos, from small mountainous hamlets to traditional agricultural settlements, each offering valuable insights into the region's cultural and social evolution.

These villages stand as witnesses to historical and social transformations, revealing how communities either adapted to changing circumstances or gradually abandoned their roots. Studying these villages shows that their abandonment does not mark the end of their history. Instead, it signals the beginning of a new chapter in which both their tangible and intangible heritage continue to shape Cyprus's cultural memory.

#### 1.3 Abandonment Factors

The abandonment of places, particularly settlements, is a complex phenomenon affecting many communities worldwide. In Cyprus, this process began centuries ago, with once-thriving areas gradually becoming isolated. Settlements were deserted for various reasons, influenced by social, economic, political and environmental factors that evolved over time and across regions.

These causes are often interconnected, shaped by the unique development conditions of each community. According to the literature, significant historical contributors to abandonment include wars, famine, epidemics, climate change and environmental disasters (e.g., floods and wildfires). These factors continue to impact the island today [12].

In addition to these challenges, social and economic transformations also play a pivotal role. Population shifts caused by urbanisation, lifestyle changes and the decline of traditional occupations have led to the depopulation of many settlements. Modern urban centres, offering broader opportunities and services, increasingly attract residents from rural areas.

Political instability and poor resource management further compound the issue. Ineffective political decisions and mismanagement often trigger conflicts and undermine regional stability, accelerating the decline of vulnerable communities [13]. Addressing settlement abandonment requires a multidimensional approach that examines the interplay of these factors to develop effective strategies for preserving and revitalising affected areas.

# 2 Research Methodology

This research was conducted as part of an independent study within a postgraduate programme on Conservation and Restoration of Historic Buildings and Sites at the University of Cyprus. The study combined bibliographic research with empirical data analysis to investigate the phenomenon of abandoned settlements in the Paphos district.

The primary source of data was the digital database of traditional Cypriot architecture (www.vernarch.ac.cy), which provides population records from censuses conducted by the Republic of Cyprus between 1850 and 2011. This data was systematically processed through the creation of tables, graphs and maps, facilitating the identification of demographic changes and the classification of abandoned settlements. The maps presented in this study were manually prepared by the author using a base map of the Paphos district and demographic data sourced from the VernArch platform. Settlement locations were individually identified and plotted, incorporating historical and spatial information to reflect patterns of abandonment and population change over time. For the purposes of this study, settlements with a population of up to 50 residents were defined as abandoned.

The analysis was further expanded to include a historical dimension, drawing on Gilles Grivaud's, 'Studies and Memoranda' (1998), to examine the context prior to 1881. This comparative approach enabled the verification of findings and the formulation of reliable conclusions regarding the evolution of these settlements and the factors contributing to their abandonment.

The methodological framework ensured comprehensive and credible analysis, providing essential insights into the significance of abandoned settlements and a deeper understanding of the causes behind their decline.

### 3 Research Results

### 3.1 Identification of Abandoned Villages in Paphos

For study purposes, only settlements with fewer than 50 residents are included and considered abandoned. To facilitate analysis, abandoned settlements were categorised into groups based on population thresholds of fewer than 50, 20, 10 and 5 residents. Since there is no universally defined minimum population number that characterises a settlement as abandoned, this classification was adopted as a working definition for the research.

Out of the 160 villages found in the Paphos district, 44 villages (28% of all villages in the area under study) have fewer than 50 residents. Of these, 28 villages (18%) have fewer than 20 residents, 24 villages (15%) have fewer than 10 residents, and 21 villages (14%) have fewer than 5 residents (see Fig. 2). The number of abandoned villages in Paphos is significant, with more than 25% of the district's settlements classified as ghost areas on the island. These settlements have experienced gradual depopulation over time and, in some cases, have reached a point of having no permanent residents.

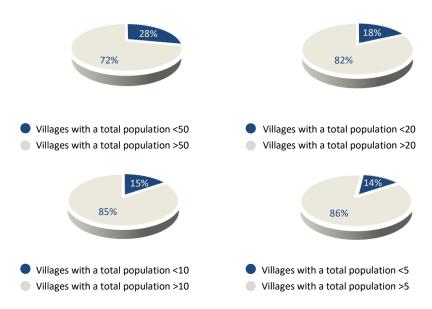


Fig. 2. Percentage distribution of abandoned and non-abandoned settlements

More specifically, the abandoned villages of Paphos include Agia Marina Kelokedaron, Agios Isidoros, Agios Ioannis of Salamiou, Akoursos, Anadiou, Kato and Pano Archimandrita, Bretsia, Gerokipia, Eledio, Evretou, Zacharia, Karamoullides, Kato Arodes, Kidasi, Kourtaka, Lagoudia, Lapithiou, Livadi, Lizata, Loukrounou, Maronas, Meladia, Mesana, Milia, Mousere, Moro Nero, Pano Akourdalia, Potima, Praitori, Prastio Kelokedaron, Sarama, Skarfos, Souskiou, Tera, Falia, Fasli, Filousa Kelokedaron, Filousa Chrysochous and Foinikas.

The high number of abandoned villages in a relatively small district raises questions and concerns, highlighting the need for further study. This significant percentage has made the identification and spatial mapping of these settlements essential. Key questions arise regarding their location and characteristics: Are they situated in mountainous or coastal areas? Do they occupy large or small portions of the district? Are they predominantly Greek Cypriot, Turkish Cypriot, or mixed communities? Were these villages organised in groups and abandoned during a specific historical period for specific reasons?

To address these questions, it is crucial to identify and study the abandoned settlements in detail. The recognition and visualisation of data offers insights that help address key questions about these deserted villages (see Fig. 3).

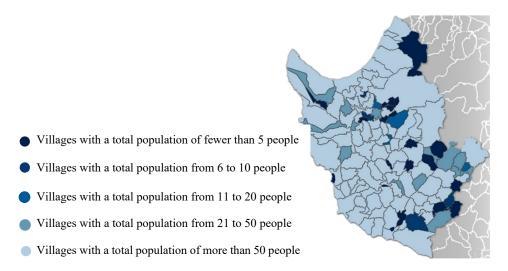


Fig. 3. Abandoned settlements of Paphos

The deserted villages occupy a large portion of the Paphos district. Most are located far from administrative boundaries and at a distance from the urban centre, which was likely a primary factor in their abandonment. Only a few abandoned villages are found along the coastal areas, indicating in these cases probable concerns and fears that may have driven residents to relocate. The inhabitants of the area showed a clear preference for settling in more mountainous regions, closer to the administrative boundaries. Many of these abandoned settlements appear to be clustered, with neighbouring villages potentially influencing one another in a chain reaction of decline and abandonment.

Before examining the historical periods during which depopulation occurred, it is important to investigate whether these villages were inhabited by Greek Cypriots, Turkish Cypriots, or mixed communities (see Fig. 4). Identifying the demographic composition of residents can provide different perspectives on the causes of abandonment.



Fig. 4. Origin of the population of Abandoned Settlements in Paphos

Research shows that 55% of Paphos's abandoned villages were inhabited by Turkish Cypriots, 36% by Greek Cypriots and the remaining 6% by mixed communities. Specifically, 24 abandoned Turkish Cypriot villages, 16 Greek Cypriot villages and 4 mixed villages were identified.

- Abandoned Villages by Demographic Composition:
- Turkish Cypriot villages: Agios Isidoros, Agios Ioannis Salamiou, Anadiou, Androlikou, Vretsia, Evretou, Zacharia, Karamoullides, Kato Arodes, Kidasi, Kourtaka, Lapithiou, Loukrounou, Maronas, Meladia, Melandra, Moro Nero, Prasteio Kelokedaron, Sarama, Souskiou, Tera, Falia, Fasli, Foinikas.
- Greek Cypriot villages: Agia Marina Kelokedaron, Gerokipia, Eledio, Koilinia, Livadi, Mesana, Milia, Mousere, Pano Akourdaleia, Potima, Praitori, Skarfos, Filousa Kelokedaron, Filousa Chrysochous.
- Mixed villages: Akoursos, Pano Archimandrita, Lagoudia, Lizata.

The following diagrams provide a clearer illustration of the depopulation of villages with fewer than 20, 10 and 5 residents. Categorising settlements in this way helps to clarify the severity of the abandonment issue in Paphos. The findings confirm that many villages have populations below 50, but also below 20, 10 and even 5 residents. Identifying the origins of these residents helps refine the analysis and leads to more specific results.

The 28 villages depicted in Figure 5 have populations of fewer than 20 residents. Some of these villages are clustered together, while others are more sparsely distributed. Most of the clustered settlements appear to be Turkish Cypriot. This grouping may have been intentional, aimed at providing residents with a sense of security in an unfamiliar or vulnerable environment.

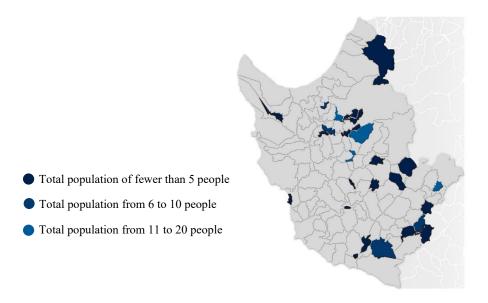


Fig. 5. Abandoned settlements of Paphos district with a population of fewer than 20 people

Figure 6 depicts a total of 24 villages, with only 4 having between 11 and 20 residents, as indicated in Figure 8. This suggests that many of the abandoned settlements had very few residents, a number that may have gradually decreased to zero over time. This trend will be further examined in subsequent stages through the analysis of more recent population censuses.

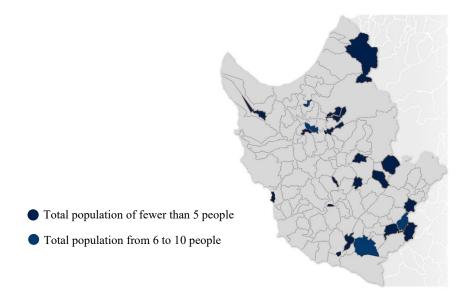


Fig. 6. Abandoned settlements of Paphos district with a population of fewer than 10 people

Figure 7 illustrates the settlements with the smallest populations among all previous categories. Most of these villages are in mountainous areas, with very few near the coastal regions. At first glance, they appear scattered across the district, although some are clustered. Most of these settlements were inhabited by Turkish Cypriots. Specifically, 15 villages are Turkish Cypriot, 4 are Greek Cypriot and 2 have mixed populations.

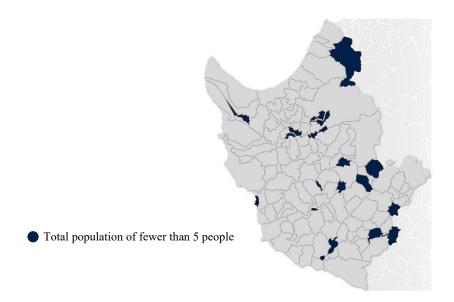


Fig. 7. Abandoned settlements of Paphos district with a population of fewer than 5 people

# 3.2 Comparison of Abandoned Villages in Paphos District: Past and Present According to Gilles Grivaud

During the research process, it was deemed necessary to study the abandoned villages of the past, as documented in Gilles Grivaud's work [11]. The objective was to compare the findings of Grivaud's historical study with the abandoned areas in the Paphos district today.

Grivaud's extensive research focused on abandoned villages across Cyprus, examining their history and causes of abandonment. A review of his book and various related articles provided an opportunity to identify common elements between his study and the current research. These similarities and differences helped draw conclusions about the historical evolution of these settlements.

Grivaud's research covers the period between 1550 and 1881, identifying epidemics, disease outbreaks and wars, as well as climatic challenges, such as drought and crop failures, as the primary causes of abandonment [14]. Through his investigation of depopulated areas across the island, Grivaud found that between 1375 and 1460, Cyprus had 20 abandoned villages. This number increased to 70 between 1460 and 1550. These findings formed the basis of his study, which aimed to enhance understanding of abandoned settlements throughout the island [11].

Grivaud examined each district of Cyprus individually, including the Paphos district. For clarity, he divided the region of Paphos into two sections: Paphos and Chrysochou. His findings revealed that by 1881, the district had a total of 71 abandoned villages – 51 in the Paphos area and 20 in the Chrysochou area (see Fig. 8).

CHY %	16 2,7	4 0,6	14 2,4	73 12,6	52 9	6 1	34 5,8	214 36,7	31 5,3	138 23,7	582 100
?	2	1	-	32	•	•	-	1	-	6	4.
CH				2	1	-		8	1	8	2
PA	3		1	1	-		1	22		23	5
AV	-	-	-	1	-	-	1	1	2	4	
LI	1	2	11	3	1	3	3	30	3	9	6
MA	1	-	-	-	-	-	1	12	2	5	2
SA	-	-	1	-	3	-	-	2	1	3	1
PE	1	1	-	15	8	1	12	48	7	23	11
VI	3	-	-	8	13	2	8	22	4	29	8
CE	4	-	-	1	4	-	2	21	3	9	4
ME	1	-	1	6	22	-	4	27	5	17	8
CA	-	-	-	4	-	_	2	20	3	2	3
Contrée	1200- 1300	1300- 1375	1375- 1460	1460- 1560	1572	1600- 1700	1700- 1800	1600- 1800	1800- 1881	1600- 1881	Tota

Fig. 8. Total record of abandoned settlements according to the study by Gilles Grivaud

According to Grivaud, Paphos had one of the highest numbers of abandoned settlements compared to other districts in Cyprus. This aligns with the findings of the present study, which similarly shows a significant number of deserted villages in the Paphos region today.

Based on the maps found in Gilles Grivaud's archive, an effort was made to identify abandoned settlements from that period (1550 to 1881). The investigation revealed that almost all villages in Paphos have retained their original names to the present day (see Fig. 9). However, a key question in this study is identifying the villages referred to by Grivaud that have maintained a stable population, as well as those classified as deserted between 1550 and 1881.

Figure 9 illustrates both abandoned and non-abandoned villages in Paphos, using different symbols to distinguish them. According to Grivaud's findings (1998), 43 villages were identified as abandoned, while the remaining were classified as non-abandoned.



Fig. 9. Record of the settlements in Paphos during the period 1550-1881

Many of the abandoned villages from that period (mentioned by Grivaud) remain deserted today (recognised as such by the present study). A total of 13 villages have been in a state of abandonment since the 1880s. Over time, these settlements were unable to recover, as no efforts have been made to revive them. These villages are depicted in Figure 10.

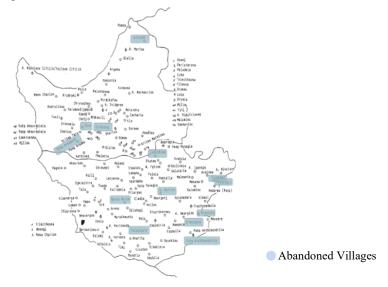


Fig. 10. Common abandoned villages of the past and present

It is evident that some of the villages identified by Grivaud remain abandoned to this day. Further study of the older abandoned settlements has produced intriguing results. However, comparing past and present data can, in some cases, complicate the findings. Certain villages classified as ghost settlements until the 1880s later experienced a population resurgence, only to be deserted again over time. An example of this is the village of Lapithiou. In other cases, villages that Grivaud documented as abandoned before 1880 have since been revived, with their population increasing and remaining stable to the present day. One such example is the village of Kato Arodes (see Table 1). These findings may sometimes be misleading, and more research is required to reach more definitive conclusions. This raises questions and leaves gaps in the research regarding the comparison between past and present abandoned settlements.

Table 1. Record of the total number of residents in Kato Arodes and Lapithiou

	Total Number of men and women														
	1881	1891	1901	1911	1921	1931	1946	1956	1960	1973	1976	1982	1992	2001	2011
Kato Arodes	148	249	250	292	331	296	475	491	432	559	53	54	20	19	39
Lapithiou	147	126	125	127	111	108	146	164	156	203	2	8	0	0	0

The comparison between the results of this research and Grivaud's study was essential, as he had systematically and thoroughly examined the same subject in the past. The analysis revealed both similarities and differences between the data gathered in the two studies, confirming its reliability and improving the understanding of the issue under investigation. These findings, both consistent and divergent, warrant further exploration and open new avenues for research in this area. They may serve as a starting point for future studies and the advancement of knowledge in this field.

# 3.3 Data Recording and Analysis of Abandoned Settlements as Identified Nowadays

To complete this research and draw accurate conclusions regarding the abandoned settlements, more detailed data from the VernArch database, was investigated and analysed. This chapter presents all processed numerical data, accompanied by relevant tables and graphical representations that detail the evolution of these settlements over time. These visual aids help clarify the trends and factors contributing to settlement depopulation, providing a framework for further analysis and conclusions.

### - Analysis of the Total Population

Once processed appropriately, the raw data collected for each period provides a broader and more significant perspective on the development of settlements in Paphos. Presenting this data can reveal trends in population movement and shed light on the impacts of historical events that unfolded on the island during various periods.

Using graphical representations as key tools, an effort was made to correlate the abandonment of areas in the Paphos district with potential causes, particularly political

and socio-economic factors. The visual data highlights changes in population and the development of settlements over time (see Figs. 11, 12, 13, 14).

Within this framework, studying the recorded population data across different periods allows for the identification of key timeframes during which abandoned villages underwent significant changes. Historical events such as wars, epidemics, economic crises and population displacements have substantial impacts on settlement populations and remain primary causes of decline and abandonment.

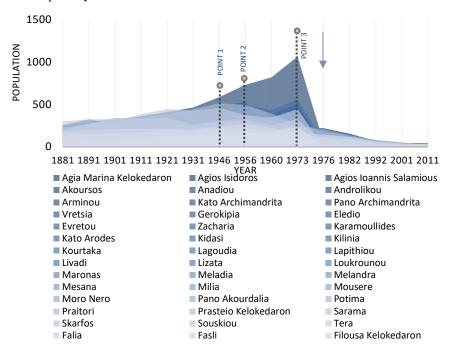


Fig. 11. Record of the total population overtime in areas with fewer than 50 residents

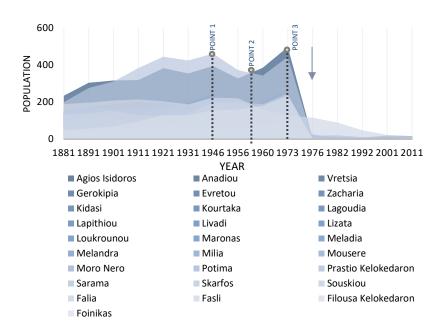


Fig.12. Record of the total population over time in areas with fewer than 20 residents

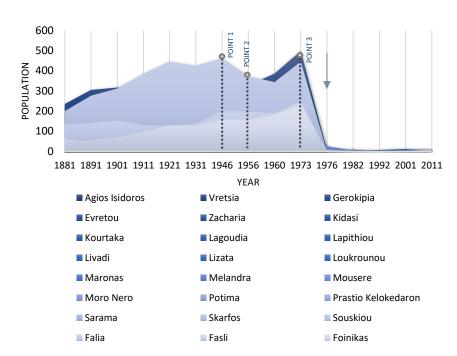


Fig. 13. Record of the total population over time in areas with fewer than 10 residents

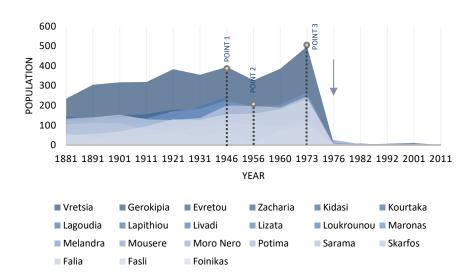


Fig.14. Record of the total population over time in areas with fewer than 5 residents

These figures highlight the significant demographic shifts that have occurred over time, with these settlements having fewer than 50 residents by the time of the 2011 census. The population decline across 44 of the district's 160 communities underscores a major issue affecting the social structure and economic development of each area.

The available data indicates that the abandoned areas in Paphos follow a common pattern of evolution over time. Population decline during specific historical periods reflects key events in Cyprus's history. Graphs illustrate these downward trends during critical periods, including 1946 - 1956, 1956 - 1960, and most notably, 1974. The year 1974 stands out as a turning point, marking the onset of widespread abandonment in areas already at risk of depopulation. From that period onward, these settlements experienced gradual population loss, ultimately resulting in the current state of near or complete desertion. This trend underscores the complex relationship between historical events and social structures, highlighting how key moments in Cyprus's history have influenced the island's demographic and social dynamics.

In 1946 (Point 1 in Figs. 11, 12, 13, 14), all population graphs show a decline in the population figures for most of the studied settlements. This phenomenon is likely tied to the desire and push for Cyprus's union with Greece. This issue first emerged in the early 20th century but gained significant momentum during the 1940s, sparking reactions and conflicts among the island's ethnic communities. The Turkish Cypriot community strongly opposed the idea, and the resulting tensions and unrest significantly affected Cyprus in 1946. These disturbances may have played a crucial role in the movement of residents.

Instability and conflict create unsafe conditions, which in turn, can prompt people to leave their areas in search of security. Moreover, conflicts can undermine the economic and social stability of a region, limiting access to services and essential resources. These

events influenced political developments on the island during the 1950s and shaped discussions regarding Cyprus's future [15].

Another significant historical event that influenced Cyprus was the island's National Liberation Struggle in 1956 (Point 2 in Figs. 11, 12, 13, 14). This movement began in 1955 and lasted until March 1959, with its impact directly linked to the recorded population data across various areas. Specifically, in 1956, all graphs clearly show a sharper downward trend in resident numbers over time. It is worth noting that while the population had been steadily declining since 1946, the decrease became more pronounced around 1956.

Efforts to liberate the island from British colonial rule, along with the aspiration for Cyprus's union with Greece, significantly influenced population movements, daily habits and the way of life in the Paphos district. These socio-political changes contributed to further depopulation and reshaped community structures in the region [15].

The National Liberation Struggle of 1955-1959 had significant consequences for the future of the island. The impact of these events is evident in the population graphs (Point 2 in Figs. 11, 12, 13, 14), which show a marked decline in resident numbers at that time. This decline reflects the significant influence of these historical events on individual communities [16]. Tensions between the Greek Cypriot and Turkish Cypriot communities escalated during this period, eventually leading to the division of Cyprus in the 1960s. This division contributed to the establishment of the Republic of Cyprus and the creation of an autonomous Turkish Cypriot administration [17].

Another significant factor that contributed to the continued decline of communities between 1955-1960, was the transition from an agricultural economy to one based on tourism and industry. This shift led to intense urbanisation, which had devastating effects on rural areas. As people moved to cities in search of better employment opportunities and improved living conditions, rural regions began to depopulate. The loss of the agricultural workforce resulted in reduced local production and the abandonment of traditional farming practices. This ultimately led to significant degradation of the rural landscape and the erosion of local cultural heritage [17].

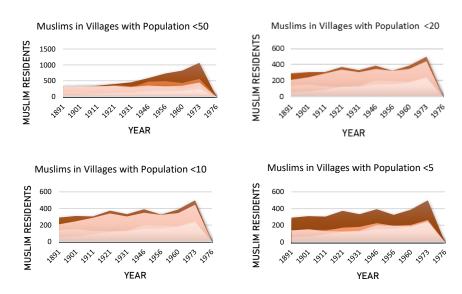
The most significant historical event to take place on the island was the Turkish invasion on July 20, 1974, which became the primary cause of settlement abandonment. This event, marked at the turning points of the population graphs (Point 3 in Figs. 11, 12, 13, 14), had dramatic consequences for each village. Armed conflicts between Turkish and Cypriot forces culminated in the occupation of a large portion of the northern part of the island by Turkish forces. During this period, many villages were abandoned as residents fled. The invasion caused forced population displacements and a population exchange between the northern and southern parts of the island. Insecurity and ongoing hostilities compelled people to leave their homes and properties, seeking safety and protection in other regions far from the conflict zones [18].

### - Analysis of the Total Number of Muslim Residents

The analysis of all preceding data demonstrates that both ancestry and religion were significant factors influencing the abandonment of villages in each district. The majority of these abandoned settlements were Turkish Cypriot, indicating a close connection

with the island's historical events. Therefore, exploring the religious beliefs of residents, particularly those of Muslims, is essential to better understand the relationship between religion and the abandonment of these settlements.

Through a brief analysis, Figures 15, 16, 17 and 18 were created to illustrate the number of Muslim residents and to determine whether the religious composition of these abandoned villages influenced the decision to leave due to the presence of Turkish Cypriots (see Figs.15, 16, 17, 18). Considering the historical events that have shaped the relationship between Cyprus and Turkey, the effects on the abandoned areas in the district are likely predictable.

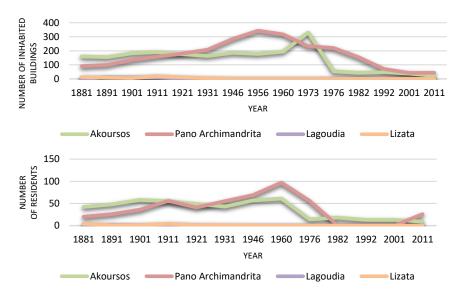


**Figs. 15., 16., 17., 18.** Record of the total number of Muslim residents over time, in areas with populations of fewer than 50, 20, 10, and 5 people

The graphs show a continuous fluctuation in the number of Turkish Cypriot residents, particularly after the 1974 invasion. This fluctuation reflects a clear trend towards the abandonment of settlements.

# - Analysis of the Building Infrastructure in Abandoned Settlements

A consequence of settlement depopulation is not only the reduction in resident numbers but also the neglect of the built environment. As the population declines, there is a corresponding decrease in the number of uninhabited buildings as people abandon their property and the land where they once lived. This results in the degradation of the landscape and infrastructure, as shown in the following graphs (Figs. 19 and 20).



**Figs. 19., 20.** Comparison of the number of inhabited buildings with the total population for 4 mixed villages in Paphos

Beyond socio-economic and political factors closely linked to settlement abandonment, other significant causes also play an important role. The mass departure of residents from a settlement can also be attributed to environmental factors and natural disasters. Extreme weather conditions, such as prolonged droughts, extreme temperatures and floods, can have severe impacts on both the landscape and the built environment, ultimately leading to the abandonment of affected areas [18]. Examples of settlements abandoned due to such extreme weather phenomena include Foinikas and Theletra.

Foinikas is a unique settlement that was deserted due to rising water levels in a nearby dam. Today, it suffers from a lack of care and maintenance, both in terms of the landscape and its remaining structures – a condition common to many of today's abandoned settlements. The village of Theletra has been abandoned for 30 years. It was deserted due to landslides, with residents relocating to a nearby higher-altitude settlement, also named Theletra.

Isolation and the lack of essential infrastructure are also crucial factors contributing to settlement abandonment. Villages in remote areas often suffer from limited opportunities for various reasons. This, combined with the lack of basic infrastructure such as schools and hospitals, as well as restricted access to essential services and employment, presents significant challenges. These hardships make such areas less attractive for habitation, deterring residents from living under such conditions.

The abandonment of settlements in the Paphos region reflects a complex interplay of factors that have shaped the area's landscape today. From social and economic hardships and isolation to environmental challenges and political uncertainties, each aspect forms part of the larger picture that defines the current situation.

The documentation, study and analysis of data on abandoned settlements was essential to understand the severity of this phenomenon. The collection and organisation of

key information on deserted communities was deemed crucial. The extensive data available on the VernArch platform proved valuable for drawing the conclusions of this research.

# 4 Legal Framework of Cyprus and Policies

To safeguard the historical and cultural value of abandoned traditional villages an effective legal framework is required to ensure their protection, restoration, and sustainable development [19]. Cyprus currently lacks a specialised policy for these settlements, unlike other European countries where adaptive reuse programmes, legal incentives, and zoning regulations have successfully revitalised similar areas [20].

Specifically today, the only protection that can be provided by the state to ruined villages in Cyprus according to existing legislation is either their designation as areas of special character by the Department of Town Planning and Housing or the declaration of all individual buildings within abandoned settlements as listed buildings (by the Department of Town Planning and Housing) or ancient monuments (by the Department of Antiquities, often involving the expropriation of said buildings). This legislative coverage is considered insufficient today because the former (designation of areas of special interest) does not constitute adequate protection measurements while the latter (protection declaration of each individual dwelling) is a time-consuming process that requires the notification of each individual owner for the inclusion of their building in a protection regime.

At the same time neither of the above actions include the involvement of the inhabitants and stakeholders. Following this second process, almost all individual buildings have been declared protected (ancient monuments) in a few ruined settlements in Cyprus (such as Fikardou and Parsata) and a few buildings have been preserved and reused for museum purposes (e.g. Fikardou). However, the revival of these ruined settlements has not been achieved due to the limited number of buildings preserved and the lack of involvement of other community bodies and citizens in this process.

To address these challenges and safeguard the protection and revival of abandoned traditional settlements, Cyprus can adopt good and successful practices from other European models, implementing actions such as:

- Legal Protection Status: Recognising abandoned villages as protected heritage sites, ensuring their conservation under national law
- Encouragement of financial incentives for property owners while preventing long-term neglect; a strategy successfully applied in Italy and Spain (Use It or Restore It Policy)
- Public-Private Partnerships: Engaging government bodies, private investors and local communities to finance and implement restoration projects, as seen in France [20]
- Sustainable Economic Integration: Allowing low-impact tourism development while maintaining heritage integrity, following successful models from Greece and Portugal [21]

 Adaptive Reuse Initiatives: Transforming abandoned structures into eco-lodges, educational hubs, or cultural centres, fostering economic sustainability

To ensure the success of these interventions, Cyprus should establish an Integrated Action Plan, that can include [22] the following:

- a) a National Register of Abandoned Villages, documenting their condition and restoration potential
- a Heritage Protection Fund, supporting renovations and incentivizing conservation efforts
- c) a Local Engagement Strategy, empowering communities to participate in revitalisation projects

It should be noted that legislation alone is not enough to ensure the protection; community involvement is essential. Public awareness campaigns and citizen-driven heritage programmes, such as Finland's 'Adopt a Monument' initiative, show how grassroots efforts can significantly contribute to preservation [23]. By combining legal reforms with community engagement, abandoned villages can be reintegrated into Cyprus's cultural and economic landscape.

### 5 Discussion

The objective of this research was to identify and recognise abandoned settlements in the Paphos district and analyse the reasons for their decline. The study emphasised the importance of investigating these settlements, particularly after 1881, in order to document their evolution and socio-political context. Through mapping and analysis of settlements with fewer than 50, 20, 10 and 5 residents, the research provided a clearer understanding of the demographic shifts and abandonment trends. By comparing past and present data, the study uncovered patterns of depopulation and identified critical turning points in Cyprus's history, which directly impacted rural communities.

The comparison with Gilles Grivaud's historical findings confirms the persistence of vulnerability in many of these settlements, while also revealing cyclical patterns of abandonment and partial recovery. These results suggest that abandonment should not be viewed merely as a terminal condition, but rather as part of an evolving process tied to broader structural transformations.

The demographic composition of the villages (Greek Cypriot, Turkish Cypriot, and mixed) further complicates the narrative, pointing to sociopolitical disruptions and cultural displacement. Furthermore, environmental and geographical constraints appear to reinforce the vulnerability of remote or mountainous settlements. The spatial analysis performed in this study strongly supports this, showing that remoteness and lack of connectivity coincide with the most extreme cases of abandonment. These remarks are in line with other studies in the Mediterranean area [3] and Europe [2] where remote vernacular settlements face common issues of disengagement, depopulation, decline and economic and social crises.

To better interpret these patterns, the study proposed a classification model based on population thresholds and historical permanence. This model is consistent with typologies previously suggested in the literature. Yioutani-Iacovides [24] proposed a distinction between 'rehabitable' and 'non-rehabitable' settlements in Cyprus, based on their potential for reuse, physical condition and legal status. The present study builds upon that logic by applying a similar rationale through demographic and spatial metrics, offering a complementary approach to identifying critical levels of abandonment.

Additionally, the research showed that certain abandoned villages, although no longer inhabited, retain symbolic and cultural importance within the collective memory of local communities. This is reflected in the way some of these places are still referenced in social narratives or retain emotional attachment among former residents and their descendants. This interpretation aligns with the findings of Vionis and Papantoniou [10], who argue that rural spaces in Cyprus – even when physically abandoned – may continue to act as anchors of memory and identity. A similar observation is made by other scientific studies, which underline the tangible and intangible values of these settlements [6]. The present study confirms this perspective by illustrating how abandonment transforms the function and perception of these landscapes, rather than erasing their cultural relevance.

Finally, the proposed visual mapping methodology contributes to recent scholarship promoting integrated, heritage-sensitive planning for marginalised landscapes. As noted by Yioutani-Iacovides in her later work [25], any future management must take into account both the symbolic and practical characteristics of these settlements. The present study provides tools that could support such planning, especially by local authorities or academic institutions seeking to prioritise cultural continuity in rural Cyprus.

### 6 Conclusions

The phenomenon of rural abandonment, as explored in this study, raises not only historical and spatial questions, but also broader challenges of sustainable territorial governance. While the analysis was grounded in the context of the Paphos district, the tools and approaches employed – including classification models and spatial visualisation – have wider applicability for regions facing similar demographic decline and land-scape transformation.

From a strategic planning perspective, the insights offered here underscore the need for integrative policies that address both the material decline of rural settlements and their intangible cultural value. These insights can contribute to forward-looking frameworks for inclusive rural regeneration and memory-sensitive development.

In this context, the study aligns with global objectives outlined in the 2030 Agenda for Sustainable Development [26]. Specifically, it supports SDG 11 (Sustainable Cities and Communities), by highlighting the cultural relevance of neglected settlements and the need for inclusive, heritage-conscious planning. It also intersects with SDG 15 (Life on Land), which promotes the sustainable use of terrestrial ecosystems and the preservation of traditional landscapes [27]. Recognising abandoned villages as part of living

cultural landscapes opens up possibilities for participatory, adaptive and locally grounded interventions that enhance long-term resilience.

Ultimately, the study reinforces the importance of contextualised and transdisciplinary approaches to cultural heritage at risk. Its findings may inform both academic research and practical frameworks for sustainable development in rural environments beyond Cyprus.

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