"LIGHTHOUSE FAMILIES" IN GREECE: THEIR CONTRIBUTION TO FORMING AND PRESERVING COASTAL CULTURAL IDENTITIES

Polyxeni Moira, Dimitrios Mylonopoulos, Paraskevi Kakaroucha

Abstract: The Hellenic Lighthouse Network (HLN) is one of the most historic and best organized coastal and open sea lighting systems across the world. Greek traditional built lighthouses and beacons are perceived as an integral part of coastal cultural identities since they encapsulate tangible and intangible qualities.

Lighthouse keepers in Greece have been influenced by the roughness of the landscape and the isolation of their profession. At the same time, their communities, the so-called "lighthouse families", have contributed to the construction and preservation of coastal natural and manmade cultural resources.

The paper seeks to delineate the cultural capital and tourism potential of life at lighthouses in Greece. It also underlines the significance of Greek lighthouse families' role in protecting, revitalizing and rebranding the cultural characteristics of coastal areas. The survey was conducted in the context of a doctoral thesis and was based on qualitative research methods. Literature review, study visits at lighthouse zones, and interviews with professionals in the field and persons emotionally connected with lighthouses, produced results that confirmed our research hypotheses.

Keywords: Hellenic Lighthouse Network, lighthouse keepers, lighthouse families, coastal cultural identity, Greece

Polyxeni Moira, University of West Attica, Greece, polmoira@uniwa.gr, 0009-0005-0194-7399
Dimitrios Mylonopoulos, University of West Attica, Greece, dimilon@uniwa.gr, 0009-0003-5757-7708
Paraskevi Kakaroucha, University of West Attica, Greece, pkakarouha@yahoo.gr, 0000-0001-9187-2434

Introduction

The Hellenic Lighthouse Network (HLN) is one of the most historic, best organized and densest (about 1/10 km of coastline or 1/5.4 NM) coastal and open sea lighting systems worldwide. It includes more than 1600 lighthouses, beacons and buoys. Traditional built lighthouses and beacons were installed between 1822 and 1926, i.e., after the beginning of the Greek War of Independence against the Ottoman Empire (1821) and were gradually incorporated into the national marine and defence infrastructure. They have been characterized as Monuments of Modern Cultural Heritage since they were erected at least one hundred years ago [11].

The majority of Greek lighthouse complexes and buildings are found in locations of natural beauty and architectural interest; some of them are situated within conservation areas (e.g., Sapienza Island, Pylos) and world heritage sites (e.g., Fort of Old Town, Corfu). Greek lighthouses are almost handmade albeit remarkable and multifaceted structures that represent tangible and intangible qualities. They absorb local, national and global connotations, and reflect monumental, technological, political, social, practical, aesthetic and spiritual values. As a result, they are deemed to be a core element of coastal cultural identities to many regions and the whole country despite their practical utility being minimized due to their automation. Still, they enchant people pursuing sophisticated and reclusive activities beyond the mass tourism spectrum. Greek lighthouse scenery inspires authors and artists, too; that is why it is depicted in a plethora of literary works, music (lyrics and video clips), advertising and cinema products [9].

Lighthouse keepers are inextricably associated with the history, operation and protection of lighthouses. Each one's experiences, narratives, perceptions or emotions are unique. However, lighthouse keepers' collective 'habitus' [4], memory and expertise have comprised a sui generis cultural ecosystem. As a social group, lighthouse keepers in Greece have been influenced by the harshness of the Greek landscape and the extreme isolation of their profession. At the same time, their autonomous and self-dependent communities, the so-called "lighthouse families", have substantially contributed to the construction and preservation of coastal natural and manmade cultural resources over time. Notwithstanding, the modernization and digitization of shipping equipment and navigational aids, as well as improvement to access through sea routes and land roads, have simplified lighthouse keepers' routine. Their profession is considered obsolete, or even unnecessary, but their regular presence at lighthouses seems to be a catalyst for the sustainability of buildings, the surrounding environment, land and seascapes [9, 15].

The paper seeks to explain the cultural capital and tourism potential of life at lighthouses in Greece. It also discusses the importance of Greek lighthouse families' role in preserving, refreshing and rebranding the inherent cultural features of coastal areas. The survey was conducted in the context of a doctoral thesis and was based on qualitative research methodology [9]. Literature review, study visits at lighthouse zones, and interviews with people familiar with lighthouses, produced results that verified our hypotheses. Formal and unspoken rules of living and collaborating, intercultural communication, intergender and intergenerational relationships, kids' education, games and toys, food seeking,

preparing and storing practices, ordinary, festive and mourning rituals, attitudes towards nature and spiritual matters, oral history and legends are some of the topics that were observed, reported and regarded as worth recording, evaluating, interpreting and disseminating under the scope of lighthouses forming and preserving distinct coastal identities in Greece.

Methods

The research was carried out between 2020 and 2023, in three stages. Relevant scientific books and articles were collected and reviewed; literary texts (novels, poems and song lyrics), films, advertisements and music video clips, posters, stamps and telephone cards were gathered and analyzed, too. Study visits and interviews were conducted throughout the research, most of them during its final phase.

The aim of the entire research was very broad and exceeds the limits of the present paper. Regarding lighthouse keepers, the aim was threefold: (i) focusing on particular aspects of their living and working conditions as a social group, with emphasis on the 19th and 20th centuries (i.e., before the automation of lighthouses), (ii) explaining the non-obvious or underestimated importance of lighthouse families for the integrity and evolution of coastal cultural identities, and (iii) suggesting ways of recognizing, preserving and promoting that exceptional cultural ecosystem through tourism and educational activities.

Scientific research on lighthouses has been developing mainly after their automation and/or decommissioning (late 20th century). The growing number of such publications could be attributed to the fact that lighthouse complexes and surrounding areas are in danger of alteration and/or loss of their tangible and intangible characteristics, since lighthouse keepers have gradually evacuated them. Although environmental and climate pressure has been a permanent threat to lighthouses, due to their marginal locations, human presence has always worked protectively, both preventively and restoratively. Many of the relevant works come from the field of applied science and usually refer to the maintenance, reconstruction and utilization of specific buildings [10, 18] or suggest lighthouse architectural standards for strengthening coastal communities' resilience against climate change [17]. Social sciences and humanities are mostly interested in lighthouse keeping as a working and living milieu, bizarre or historical incidents and notable personalities (engineers, keepers, etc.) [1, 3, 8, 16], the postmodern use of lighthouses for cultural and tourism purposes [2, 12, 13, 14] or critical approaches to well-known literary texts and films referring to lighthouses [5, 6, 19].

Searching for 'lighthouse texts', i.e., literature, films, songs, etc. that mention or implicate lighthouses as buildings, locations or symbols, was based on criteria (keywords), such as 'lighthouse', 'beacon', 'lighthouse keeper' and 'lighthouse keeping', in Greek and English language. While research being in progress, it was found that vibrant lighthouse allegory also appears on book or disc covers and film promotion posters regardless of their literal content. As a result, hundreds of similar 'items' were found but only some of them were accessible

through libraries, bookstores, archives, etc. In total, ninety novels, short story and poem collections, forty-two films, two hundred and fifty songs and dozens of other 'lighthouse' objects were analyzed (context analysis method).

Study visits were considered as a necessity for a research of this kind. It was a hands-on, context-based, embodied approach to experiencing, recording and understanding authentic conditions at lighthouses although a lot of things have become easier nowadays compared to the past. The selection of the fifty-four lighthouses (1/3 of protected ones) that were studied was based on their accessibility, approval from the Lighthouse Service and/or communication with competent lighthouse keepers (if any), the strategic/geopolitical perspective (regions of Hellenic Maritime Space), geographical (mainland and islands), micro-local (degree of difficulty in access), historical (period of construction) and morphological (type of construction and current state) importance of the buildings. During visits, a series of characteristics were taken into account according to IALA recommendations on the preservation of lighthouse heritage [7]. An observation grid including a series of closed (Yes/No, gap filling, grading, etc.) and open-ended (lighthouse keeper presence, exact location, situation, marked trails, other close-by places worth visiting, etc.) questions was used to estimate each lighthouse's cultural meaning and tourism potential.

The interviewees have supported and showcased Greek lighthouses with their work or have been connected to lighthouses through their family biography. They are lighthouse keepers, lighthouse keepers' adult relatives, Lighthouse Service officers, and professionals who have included references to lighthouses in their work. Interviews were given by ten active and five retired lighthouse keepers, eight relatives (offspring, grandchildren, godchildren, nieces-nephews), three (civilian and military) Lighthouse Service officers, four writers, a photographer, a painter, an architect and a former Lighthouse Service Commander and author of books dedicated to the history of the HLN. A list of questions was created to ask all of them; some of the topics discussed were lighthouse symbolism, cultural and tourism use of lighthouses, lighthouse keepers' education and role, etc. Interviews were semi-structured, so that participants could feel free to talk about the duration and quality of their relation to lighthouses or any thoughts regarding the survey.

Results

Our research process has generated multiple findings confirming the hypotheses regarding lighthouse families in Greece: (i) Greek lighthouse families' living and working conditions constitute a versatile cultural ecosystem, (ii) Greek lighthouse families' contribution to the integrity and evolution of coastal cultural identities has received little scholarly and institutional (governmental) attention; thus, it is neglected or even disdained, and (iii) that unrivalled cultural capital could be studied, classified, interpreted and signposted through tourism and educational activities ensuring sustainability for lighthouses and coastal areas as cultural entities. The results can be organized in three sections, as follows:

(i) Aspects of Greek lighthouse families as a social group: People who worked and lived in lighthouses in the past two centuries composed an unconventional social group. Lighthouse attendants, assistants and technicians, as well as members of their families and rare guests (inspectors, doctors, castaways or passers-by), coexisted, permanently or occasionally, under the same roof. They had to collaborate harmonically and perform demanding standardized tasks round-the-clock in order to keep lighthouses neat and functional. Prescribed rules and ethical principles regulated relations in lighthouses but also between their inhabitants and the external world: the authorities, seafarers and local communities. Whoever violated the canon was punished or suspended. Modus vivendi and operandi was not as idyllic as described in romantic or thrilling pieces of literature and art. In fact, hard work and limited space or other resources in Greek lighthouses, most times away from civilization, could change the dynamics any time, but lighthouse families had to find a new balance quickly and remain attached to their common goal. Cohabitation was experienced differently by each person, depending on a number of factors, such as reasons for being there, duration of a shift or appointment, distance from mainland or populated areas, age, etc.

Lighthouse families developed codes of communication with people from other cultures that needed their guidance or care. They had to be supportive, undiscriminating and tolerant within their communities, too; women, children and elderly parents usually lived with lightkeepers and assisted them with chores because they could not afford an extra home. Tenure at lighthouses turned into a family affair. Approval from the Lighthouse Service was required in order for lighthouse keepers to enter into marriage; their wives had to be Greek and were checked for any subversive opinions until the 1970s. Traditional gender roles were the norm except for cases that women or young members of the family had to be in charge, when lighthouse keepers were ill or injured. Between 1920 and 1935, the Greek State hired about fifty destitute lighthouse keepers' widows on short-term contracts, because of transfers or leaves that Balkan Wars and World War I had induced.

Children had to adapt to those conditions and parental work mobility, learn from nature, siblings and adults, or sometimes be prepared to follow an almost predestinated career in lighthouse keeping. As for their routines, lighthouse children were very imaginative. Apart from helping with lighthouse operation or going to school (if there was one at a reasonable distance), children were educated at home, learned to be responsible for younger siblings and pets, invented games outdoors and crafted toys from materials found everywhere, loved swimming, diving and fishing, enjoyed reading and storytelling, respected the elderly and appreciated life. Lighthouse children often came face-to-face with sickness and death; they perceived them as a natural part of the life cycle. Some of the retired lightkeepers in our research confessed to having been importunate with juveniles; on the contrary, participants that had lived at lighthouses when they were kids said that the whole experience was only for the benefit of their personality and skill building. It is worth noting that lighthouse keepers' daughters and sons participating in our research recalled life at lighthouses with nostalgia.

According to some interviewees, lighthouse families' attitudes towards nature were 'rather healthy'. Austerity and nativeness of materials and techniques in Greek lighthouses construction have rendered them eco-friendly and compatible with their natural surroundings anyway; they seem to cause no rupture or intrusion into land or seascapes. Lighthouse keepers served in places exposed to wild natural phenomena, trying to early warn about severe weather changes, prevent accidents and protect crews, passengers, freight and the environment from disasters. They had no intention of taming nature; instead, they admired its genuine sublimity and power, and expressed their feelings in stories, poems, paintings and handicrafts in their leisure time. Spiritual concerns differed among lighthouse residents, depending on each one's personal life route and mindset. Generally speaking, most members of lighthouse families believed in God and kept Orthodox Christian tradition alive through their everyday, festive and mourning customs. Religious and patriotic books provided by the Lighthouse Service cultivated devotion to God and the State.

Food and water procuring and storing was a logistical enigma for lighthouse families. Scheduled visits from supply ships were not frequent and long distances were difficult to travel even by boats or donkeys provided by the Lighthouse Service. Lighthouse families had to manage their supplies prudently and improvise alternative solutions, such as growing small farms with vegetables, herbs and domestic animals (hens, goats, etc.), going fishing or hunting, and preserving goods. The ground was not always tender but survival instinct, creativity and cooperation brought results. Lighthouse families faced the same problems with materials and parts for the maintenance of lighthouses, as well as for their own medical care. Conditions at lighthouses and scarcity of professional medical treatment resulted in some members of lighthouse families sickening, dying and being buried near lighthouses.

Historical sources about Greek lighthouses are rare or incongruous; oral history and lighthouse logs fill the gaps. Until the beginning of the 20th century, education was not compulsory in Greece and illiteracy rates were higher in remote areas. Lighthouse zones were no exception to that rule. Lighthouse families struggled to serve their sacred duty and survive; storytelling was an educative, comforting and uniting habit, a way of bringing people together, as well as a means of preserving the meaning of lighthouse keeping as a vocation. Isolation and, sometimes, substance use produced stories teeming with heroic deeds, fairies, mermaids and ghosts. Writers participating in our survey admitted being inspired by such stories, while other interviewees remarked that literature and cinema have exaggerated or idealized life at lighthouses.

(ii) The importance of Greek lighthouse families for the integrity and evolution of coastal cultural identities: All methods implemented in our research showed that Greek lighthouse families' legacy has received little attention although legislation protects lighthouses as modern monuments. Scholars and governmental or regional bodies in Greece study and promote lighthouses sporadically through publications or small-scale cultural activities, respectively. Nonetheless, lighthouse families' intertemporal role in forming and preserving coastal cultural physiognomy is either underestimated or even ignored. Greece

developed its territory, diplomacy and trade, spread its civilization and evolved as a maritime nation via the sea highways. Lighthouses have become recognizable and treasured landmarks, while their curators have contributed to the establishment of Greece's long nautical tradition; therefore, they deserve more scientific concern and targeted publicity by competent stakeholders.

Lighthouse families' cultural significance is not defined or visible either in academia or in tourism development plans for several reasons listed in the research. Just to name a few of them, the philosophy of the Lighthouse Service is military, lighthouses are still part of the national defence system, economic and legal restrictions hold maintenance and valorization initiatives or private sector engagement back. As a result, a magnificent cultural universe is at risk of disappearing into oblivion, whilst meticulous documentation, evaluation, interpretation and prominence of lighthouse families' organization, practical knowledge, gastronomy, customs or legends could anticipate deterioration or irreversible damage to coastal identities, offer sustainable approaches to contemporary challenges related to climate crisis (e.g., sea level rise, erosion, drought, biodiversity loss) and invigorate national cultural product with broader effects on Greek economy and society.

(iii) Ways of recognizing, preserving and promoting Greek lighthouse keepers' legacy through tourism and educational activities: According to our research findings, acknowledging lighthouse families' heritage as a distinct and influential component of coastal cultural identities could be the first step to systematically preserving and promoting it. One active lighthouse keeper, his father's successor to lighthouse posts, said characteristically: *'What happened at lighthouses some decades ago should not stay there; it is time scholars and authorities dealt with life at lighthouses seriously. Authors and painters have done a good job but the real thing is still undisclosed. Our generation* [lightkeepers today] *has a critical role, too'*. Additionally, a retired keeper compared lighthouse heritage to that of ancient monuments and expressed his expectation that soon politicians, experts and citizens would be as aware and proud of lighthouse cultural capital as he was.

What those two interviewees implied was actually repeated in some more interviews. If lighthouse heritage is going to be protected and showcased so that it continues determining the cultural character of Greek coasts, effective measures must be taken immediately. Environmental pressure is accelerating sea and landscape transformation; a horizontal, comprehensive and feasible strategic plan ought to be put into action urgently. The majority of research participants emphasized the Lighthouse Service policy and funding. They remarked that increased extroversion could make lighthouses more attractive and accessible to experts from many disciplines and the general public, but budget is considered a crucial parameter, too. A low-cost entrance fee and private sponsorship were suggested as legitimate sources of extra revenue for the Lighthouse Service to be able to expedite and intensify their diligent efforts to keep lighthouses alive.

Modern lighthouse keepers in Greece have a pivotal role in preserving and interpreting the heritage of their profession provided that they are trained to develop 'postmodern' knowledge and skills. History, geography, geology and

tourism management subjects should enrich their training curricula and everyday practice so that they can host and guide visitors or work as 'multipliers' in educational projects addressed to teachers, students or other interested groups. Around sixty lightkeepers take care of the HLN nowadays; traditional built lighthouses are more than one hundred and forty. Numbers speak of a disproportion that cannot ensure the sustainability of lighthouse buildings and surrounding areas. Dissemination of lighthouse legacy into primary and secondary school, vocational training and university syllabi, as well as tourism event planning, would probably amplify its visibility and guarantee its protection for present and future generations. More knowledgeable lighthouse keepers, with a positive attitude towards the necessity and usefulness of their new job description, would best respond to such a quasi-existential challenge.

In any case, study visits and participants' statements concerning limited carrying capacity (small gross internal and external area), combined with rough topography of Greek lighthouses, pointed to similar conclusions: only small-scale events could take place inside or in the courtyard of particular complexes, e.g., lighthouse training classes, art exhibitions, literature tributes, weather or wildlife observation boot camps, treasure hunting. Lighthouses in Greece are too delicate and/or inaccessible to welcome great numbers of visitors simultaneously. Digital technologies (e.g., virtual and augmented reality, artificial intelligence) could increase public outreach and alleviate or support lightkeepers' duties, through information archiving and parameterization, identification of lighthouse cultural features, reviving life at lighthouses, monitoring conditions at buildings and neighboring locations, trail designing and maintenance, museum or educational interactive activities preparation, etc. Lighthouse families' heritage should have a central position in any endeavor of this kind.

Discussion

Lighthouse families have been the 'soul' of lighthouses, coastal and backcountry areas, and maritime history in Greece. They have worked diligently, in low-paid and high-responsibility jobs, putting on the map and bolstering communities forgotten by governments, and protecting land and sea ecosystems. Their existence has been full of contradictions: independence and military obedience, freedom and imprisonment, stability and volatility, isolation and communication, alienation and cohesion, cosmopolitanism and provincialism, progressivism and conservatism are intermixed in their world. These antitheses have rendered lighthouse cultural wealth so attractive and lighthouse families' contribution to cultural identities so unique.

Small provincial societies respected lighthouse families; lighthouse keepers were honored like doctors, teachers and priests. They acted as liaisons between local communities and the central administration, while lighthouses functioned as meeting points, information hubs, or even decision-making centers. Besides, needs at lighthouses in terms of materials, tools and labor, as well as lighthouse keepers' humble but stable salaries, boosted local economies.

One could argue that the same ethos can be observed in lighthouses or other remote places everywhere on Earth. A comparative analysis of national lighthouse systems could reveal a lot of similarities. Indeed, literature review has shown that lighthouse families in other countries have more or less performed their duties; their cultural capital has been recognized and preserved thanks to central policies and/or local initiatives, mainly in the so-called 'Western' world. In contrast to lighthouses in other countries, Greek lighthouse structures are gradually abandoned and desolated after their automation, despite being protected as modern monuments. The number of lighthouse keepers and technicians reduces due to retirements and scarce new placements, budgets are tight, private involvement is discouraged or hindered; as a result, lighthouse cultural adding value, tangible or intangible, is in jeopardy.

Greek lighthouses epitomize the turbulent historical transitions of Modern Greece; so do lighthouse families. While Greece was trying to catch up with other European countries, lighthouse families had to overcome a myriad of adversities and created their own cultural 'hallmark': the emergence and maturation of the Greek State after nearly four centuries under Ottoman rule, World and civil wars, dictatorships, pirates, smugglers and traffickers, illiteracy, bureaucratic rigidness and nepotism, economic crises and cutbacks, and, lately, climate change. Nevertheless, lighthouse families have managed to keep their lighthouses illuminating the horizon and become an integral and solid part of Greek culture, a peculiarity of which has been family-orientation, i.e., close bonds among family members.

Although lighthouse equipment has always been advanced, following international standards thanks to Stylianos Lykoudis' persevering efforts (Army Navy Officer, Head of Lighthouse Service, first half of 20th century) and pressure from shipping companies and political players, life at lighthouses has had its own rhythm and originality. Lighthouse families have embraced innovations, preserved their traditions, responded to challenges, survived and created a whole cultural habitat with impact on neighboring areas.

Modernity was 'implanted' in lighthouses by female presence, too. Although women's recruitment was a matter of force majeure, temporary and/or of welfare nature, it was groundbreaking for Greece of the early 20th century, since it signaled their entry: a) in a male-dominated, 'masculine' working space, b) in a military profession, to which they could have access only as nurses until then, and c) in paid jobs in the public sector, where their employment was still an exception. Women's position at lighthouses was deemed as an extension of their traditional and socially acceptable duties as housewives. It was not perceived as provocative or anti-conformist, so it did not cause any reactions. On the contrary, it softly opened the way for other women to question culturally constructed dividing lines and gain visibility in the public sphere.

Greek lighthouse families' cultural contribution is inestimable. Its uniqueness deserves documentation, respect and strategic incorporation in national cultural and tourism policy, especially in the modern era of globalization and cultural homogenization.

Conclusion

Lighthouses have been guiding seafarers, and decorating coasts and dangerous outcrops since the distant era of the archetypical Pharos of Alexandria. They have prevented shipwrecks that would have adversely affected people, cargos and the environment. Lighthouses radiate light, hope and safety, but they would seem just spiritless material constructs if lighthouse families did not inhabit, operate and preserve them.

Lighthouse keeping has been more than a marine profession in Greece; it represents an idiosyncratic and multifaceted cultural ecosystem that has been influencing coastal identities in ways explained in this paper. Although their job description is different than it was in the past two centuries, lightkeepers are still responsible for the sustainability of buildings and surrounding areas. Their role is even more solitary nowadays, since their families do not follow and support them with lighthouse tasks. However, lighthouse keeping can be modernized without losing its military character. It can be enriched to include new knowledge and skills that could render lighthkeepers suitable for interpreting, revitalizing and rebranding the cultural characteristics of both lighthouses and coastal areas in the context of small-scale tourism and educational programs.

Most of Greek lighthouses are too delicate or unapproachable to host great numbers of visitors; still, some of them, that could be selected upon certain criteria (e.g., location, current situation, carrying capacity, lightkeeper presence) can operate as cultural and tourism hubs that will revive life at lighthouses through targeted events, such as guided tours, book reading evenings, wild life observation camps or other activities suggested in our study, with emphasis on lighthouse families' heritage, and could rejuvenate and diversify the national tourism product.

Acknowledgments

References

[1] Adler M.C. (2014) - *To the Rescue: Picturing Ida Lewis*, Winterthur Portfolio 48 (1), 75 - 104.

[2] Azevedo A. (2018) - *Lighthouse tourism: is there a "dark" side?*, International Journal of Tourism Cities 4 (1), 54 - 67.

[3] Blouin K. (2022) - *Storying early Alexandria: occluded histories, colonial fantasies*, Bulletin of the Institute of Classical Studies 65 (1), 42 - 54.

[4] Bourdieu P. (2006) - *Η Αίσθηση της Πρακτικής (Le Sens Pratique),* Αλεξάνδρεια, Αθήνα [in Greek].

[5] Brown P.T. (2009) - *Relativity, Quantum Physics, and Consciousness in Virginia Woolf's 'To the Lighthouse'*, Journal of Modern Literature 32 (3), 39 - 62.

[6] Dreyer C.J. (2023) - *(Eco)horror of Masculinity: Confronting Abject Nature in the Films of Robert Eggers*, Southern Communication Journal 88 (5), 454 - 465.

[7]   International Association of Marine Aids to Navigation and Lighthouse Authorities - IALA (2013) - *Report of an IALA Seminar on the Preservation of Lighthouse Heritage, Executive Summary, EEP21-14.2.2.2.*, www.iala-aism.org/product/report-seminar-on-preservation-of-lighthouse-heritage-june-2013/.

[8]   Iwasaki H. (1990) - *A family of the "lighthouse engineers" Stevenson Thomas Stevenson-Civil Engineer*, Historical Studies in Civil Engineering 10, 151 - 162.

[9]   Kakaroucha P. (2023) - *Greek traditional lighthouses as cultural and tourism resources*, Doctoral Thesis, Department of Tourism Management, University of West Attica, Athens, Greece [in Greek].

[10]   Kim D. (2011) - *Saving national heritage: cost-benefit analysis for policy alternatives of protecting Cape Hatteras Lighthouse in North Carolina*, Journal of Safety and Crisis Management 1 (1), 17 - 34.

[11]   Lighthouse Service (nd) - https://yf.hellenicnavy.gr/ [in Greek].

[12]   MacDonald S.M. (2018) - *Sentinels by the sea: keeping as an alternative tourism performance*, Text and Performance Quarterly 38 (1-2), 19 - 37.

[13]   Magnani E. & Pistocchi F. (2017) - *The Role of Lighthouses in the Construction Of Coastal Identities*, Journal of Tourism, Culture and Territorial Development Special Issue 6, 123 - 143.

[14]   Moira P., Kakaroucha P. & Mylonopoulos D. (2021) - *Lighthouse Tourism: Suggestions for an Innovative and Sustainable Use of the Greek Traditional Lighthouses*, International Journal of Hospitality & Tourism Studies 2 (2), 135 - 142.

[15]   Παπαγεωργίου Γ. (2019) - *Ελληνικοί Πέτρινοι Φάροι (Greek Stone Lighthouses)*, Επτάλοφος Α.Β.Ε.Ε., Αθήνα [in Greek].

[16]   Roseman S.R. (2022) - Lightkeeping and Family-Making, in Neis B., Murray C. & Spinks N. (eds.), *Families, mobility, and work* (pp. 285-303), Canada: Memorial University Press.

[17]   Somers, S. (2023) - *Lighthouse Architecture and Climate Change: FEMA and Coastal Communities*, Undergraduate Academic Journal, 5, 72 - 77.

[18]   Tomaszewska A., Drozdowska M. & Szafrański, M. (2020) - *Material Parameters Identification of Historic Lighthouse Based on Operational Modal Analysis*, Materials 13 (17), 3814.

[19]   Viola A. (2000) - *Fluidity versus muscularity: Lily's dilemma in Woolf's 'To the Lighthouse'*, Journal of Modern Literature 24 (2), 271 - 289.