

# RE-INHABITED ISLANDS

## Mapping a design model for resilient territories in the Mediterranean

Laura Daglio, Stamatina Kousidi

section	typology	DOI
ARCHITECTURE	ESSAYS & VIEWPOINT	<a href="https://doi.org/10.19229/978-88-5509-291-3/612021">doi.org/10.19229/978-88-5509-291-3/612021</a>

### ABSTRACT

Facing the European challenge of rural land abandonment, reactivation strategies are implemented to counter the shrinking phenomenon and to properly address the issues of conservation and enhancement of the landscape, conceived as a result of natural and anthropic transformations, cultural and societal changes over time. The paper aims at drafting possible approaches for such a regeneration design, also through the case of Antikythera, Greece, a significant example of Mediterranean cultural landscape. Based on the interpretive analysis of the place and supported by case studies, possible design models are disclosed, according to the categories of connectivity, resignification, participation, and communication. Final considerations are introduced in order to contribute to the debate and to define the strategies for the regeneration of Mediterranean landscapes, improving their resilience.

### KEYWORDS

depopulation, sustainable development, tourism, architectural design, Antikythera

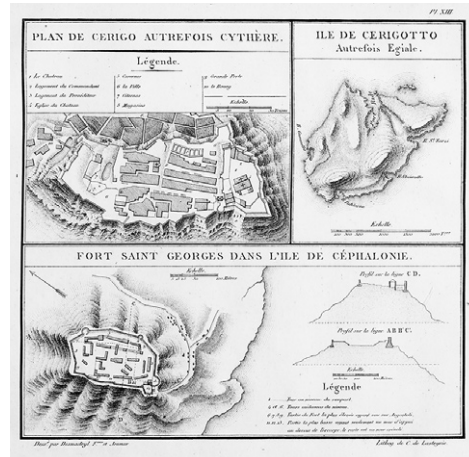
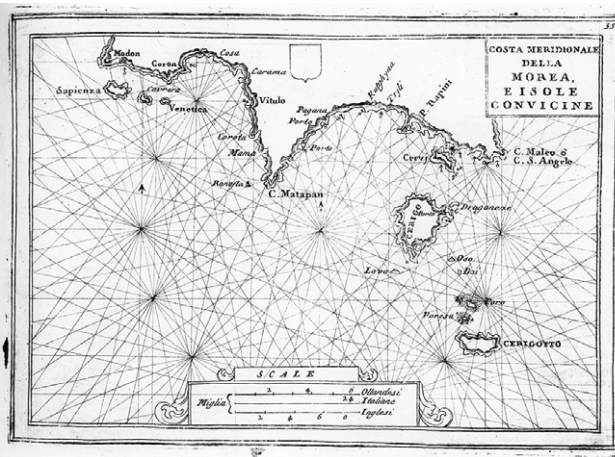
**Laura Daglio**, Architect and PhD, is an Associate Professor in Architectural Technology at the Department of Architecture, Built environment and Construction engineering (DABC), Politecnico di Milano (Italy). Member of the ABC-PhD Board, her research activities focus on environmental design and sustainability in architecture as well as on the regeneration of the built environment at the different scales. Mob. +39 338/80.62.751 | E-mail: [laura.daglio@polimi.it](mailto:laura.daglio@polimi.it)

**Stamatina Kousidi**, Architect and PhD, is an Assistant Professor in Architectural and Urban Composition at the Department of Architecture and Urban Studies (DASU), Politecnico di Milano (Italy). Member of the Board of Experts at the AUID-DASU PhD. Her research is at the interface of theories and projects of the modern and contemporary eras with an emphasis on the environmental aspects of architecture. Mob. +39 342/62.32.275 | E-mail: [stamatina.kousidi@polimi.it](mailto:stamatina.kousidi@polimi.it)

The decline of the population and the abandonment of rural areas have long become a major challenge in European countries, triggered by different factors (geographical location, political situation, financial conditions, social changes, environmental factors, accessibility etc.) and characterised both by common phenomena and by specific features and occurrences related to the respective areas. Regeneration strategies addressing the resilience of shrinking territories tackle the trade-offs between conservation and enhancement of the landscapes as the long-term results of natural and anthropic transformations, as well as cultural and societal perceptions. However, the tightening in the progress of events and the signs of an emerging awareness have introduced new meanings to the debate, bringing about an increased ambiguity of consolidated concepts, new opportunities and challenges to design approaches.

On the one hand, current research (Cramer et alii, 2018) has pointed out the threat that environmental issues, linked to phenomena such as climate warming, will intensify in the coming decades resulting in unforeseen consequences beyond repair for the local communities and the economically valuable activities attached to them. Changes in biodiversity, the degradation of the landscape, in/direct sea influence are some of the challenges associated with this threat which puts into question the definition, the goals, and the tools of a conservation strategy. On the other hand, under the influence of environmental, energy, and human health concerns, architects, urban designers, and landscape architects are nowadays called on to embrace the 'natural' dimension of territories perceiving them as both resource and site. The terms 'revival', 'reforestation', and 'rewilding' are increasingly gaining ground in contemporary design debates with the drive towards an architectural agenda for sustainability. The already blurred boundaries between the natural and the artificial acquire a new meaning with the surfacing awareness that conserving wildness in an increasingly humane world requires curatorial anthropic actions; a call for maintenance activities also to support the endemic species and habitats in fallow abandoned rural areas which offers a wider insight into the current understanding of environmental protection. Finally, the fight against the pandemic and the resulting habit changes entail a general rethinking of space in terms of distance, mobility, and accessibility, as well as of time in terms of work lifestyles and tourism.

In the light of this evolving context, the paper sets out to draft a revision of possible approaches and modes which argue in favour of a renewed comprehensive design of shrinking territories, mainly targeting the long-term abandonment processes due to social and economic dynamics and the prospective abandonment linked to climate change. Accordingly, the case study of Antikythera island, Greece is disclosed: a site of natural, historic, archaeological, and biogeographical value whose native landscape is the result of the millennia-long interaction of geology, ecology, and culture. Beyond the long-standing fascination associated with the Aegean islands in the travelogues that span from the Middle Ages to the present day, alluding to notions of myth and exoticism, autonomy, and remoteness (Fig. 1), nowadays the Mediterranean islands are



**Fig. 1** | Map of the southern coast of Morea and adjacent islands (Costa Meridionale della Morea e Isole vicine), 1688 (source: Coronelli, 1688).

**Fig. 2** | Top view of the Venetian castle of Kythera; Map of Antikythera; Top view of the fortress of Agios Georgios on Kefalonia island, 1823 (source: Bory de Saint-Vincent, 1823).

faced with ambiguity. Antikythera is undergoing a rapid depopulation owing to its isolated location, as one of the most remote, smallest, and underpopulated places in the insular Mediterranean (Fig. 2).

A typology of design projects, which argue for renewed comprehensive approaches to the re-enhancement of the place, involving multiscalar, multilayered, and multifunctional processes, is then discussed, following a specific mapping of morphological, environmental, and territorial conditions. In particular, key notions are introduced and analysed: the reactivation of a reconceptualised connectivity (physical and virtual, also based on ancient travel networks); the redesign of energy and natural infrastructures and man-made systems that acknowledge the local climatic conditions, topographic and landscape features, human dynamics and management actions; a rethinking of the agency of architecture in shaping large-scale geographies; the engagement of local communities in re-establishing a new sense of place. Prior to these actions, an analytical process is envisioned: for the identification of the specific issues and assets, problems and opportunities, of a given area. Attention is drawn to alternative ways of inhabiting remote insular areas which aim to integrate spatial, material, and formal attributes through progressive ways of tourism, socially and culturally sustainable.

**Understanding the place: the case of Antikythera** | As a first step towards the development of the reactivation design, an interpretive phase was carried out, aimed at investigating the cultural landscape of the island as the result of «[...] dynamic and collective cognitive and material processes, determined by the interaction between com-

munities and environment», and intended as a driver for the foundation of regeneration approaches (Oppido et alii, 2018, p. 620). The understanding process grounded on a multidisciplinary literature review and on a wide range of mapping and graphic restitutions also involving the time factor on a short- and long-term perspective, was conceived not only as a mere analytical endeavour but as a preliminary strategic design (Brown, 2008), starting with the systemic recognition of the place, and setting its environmental, economic, social, cultural, institutional, tangible and intangible aspects into a broader integrated perspective.

The interpretive process discusses, on the one hand, recurring features, common to the Mediterranean rural landscapes and especially the islands, providing a methodological support for referencing the proposal through the collection of similar experiences and case studies and simultaneously opening up perspectives for a scaling up of the design approach. On the other hand, it highlights the unique characters of the place, to be singled out as potentials rather than issues, as an unavoidable trigger for the said strategies, suggesting targeted regeneration paths to offer new modes of understanding, possibly offering a new reference for future interventions.

First, the ‘islandness’ condition emerges affected by the scale – Antikythera has a surface area of only 20.04 square kilometres (Fig. 3) – and is, given its remoteness, intensified by a very limited accessibility in terms of transportation. Accordingly, the depopulation problem here is shared with other small islands, which are, in contrast to the large ones, extremely fragile contexts in the contemporary world, affected by phenomena of urban and industrial concentration; for them, the main factors of space modelling have always been the relations with the mainland (Ciaccio, 1984). «Small islands fall back into a state of isolation every time their relationships with the mainland and with the outside world, for a variety of reasons, happen to be interrupted. In the islands, exchanges and isolation mark alternate phases of decay and progress» (Staniscia, 2013, p. 259).

Moreover, the concept of remoteness, which can be considered as a common issue with inland areas lacking accessibility, also bears the meaning of escape and reclusion and can be interpreted as an opportunity for certain forms of getaway tourism, especially in the current changing context due to the pandemic. A new scale and time to tourism has in fact been set (Ward, 2020) where the essential infrastructures refer to the digital connection rather than mobility and transportation, also disclosing new potentials for complying with sustainability goals (Niewiadomsky, 2020). Isolation, in addition, can become an opportunity for certain research activities to be developed on site far from the relation with densely populated and ‘contaminated’ areas, thus introducing also new forms of repopulation.<sup>1</sup>

The main controversial character of Antikythera, bearing its specific identity, was thus declined playing with its ambiguity, unravelling diverse shades of meaning and significance. Simultaneously, an attempt at recognising the place as belonging to broader physical and virtual systems was made. This attempt aligned with a ‘holistic land-

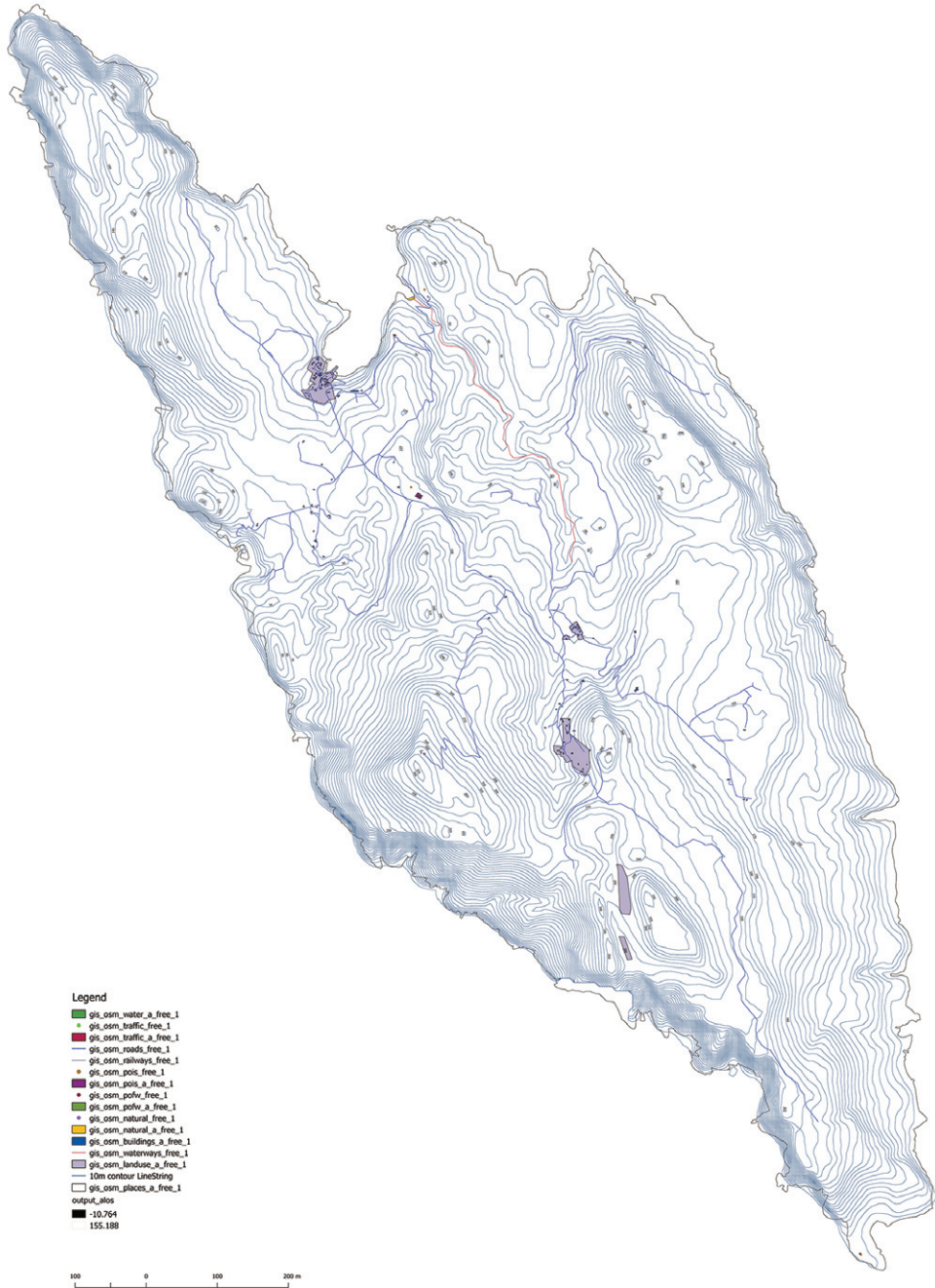


Fig. 3 | Map of Antikythera island (credit: Daglio, Kousidi, Slllovinja).



scape approach' which aimed to address the complexity of the landscape features of the area, understood as a mixture of natural, cultural and social features, and to put forward, from an architectural design perspective, «the study of processes and relationships and their links within the landscape, while at the same time build bridges between ecology and culture, past and present, experts and stakeholders» (Vogiatzaki, Pungetti and Mannion 2008, p. 357). Accordingly, landscapes are understood not as «[...] static backdrops or dependable environments upon which cultural practice is inscribed, [but as entities which] are themselves agents that take part in the constitution of the world. [In the Anthropocene era it is crucial] to rethink the status of the human among other species, nonhuman beings, and ecologies, [hence questioning] the temporal sovereignty of 'human time'» (Harmansah, 2020, p. 41). In fact, a deep understanding of the geographical location of the island in the middle of the Mediterranean reveals that it has, since ancient times, been the crossroads of commercial routes from antiquity to the Venetians as well as a natural hotspot, an important stop-over destination for migratory birds, including numerous raptor species, also thanks to the very low human impact (Figg. 4-8).

Second, the analytical phase highlighted the presence of rural terraces covering almost the entire surface of the island – now undergoing a rapid process of decline due to the abandonment of the agricultural and breeding activities – as one of the main features of the landscape (Bevan and Connolly, 2003). It is a common feature of the Mediterranean identity and heritage, testament of a historical interaction between man and nature, which has shaped the landscape as we know it nowadays. Several multidisciplinary studies demonstrate that the Antikythera terraces are currently under threat and subject to rewilding processes and to disruption and landslides risks harshened by the intensification of storms because of climate change. In fact, these widespread spatial structures bear the evidence of a long-term interaction and different degrees of correlation between terrace construction and human population (Bevan et alii, 2013). From a geological point of view, these structures reduce soil erosion phenomena (Bevan and Connolly, 2010) and, according to agronomy research, shrubs and wild vegetation quickly recolonise the agricultural land despite their abandonment, resulting in a rapid increase of the investments required to once again allow cultivation (Palmer et alii, 2010).

The argument about the future of these landscapes represents a remarkably clear example of the controversial juxtaposition between environmental and conservation issues: on the one hand, the idea that rewilding means that 'nature is taking back'. On the other hand, we are faced with a broader more complex system of negative effects on the ecosystem as well as the loss of a rich significant heritage (Agnoletti, 2014). However, the multifunctionality of these Mediterranean landscapes should be addressed. The goal of reinstating agriculture as a means of restoring the terraces and as a strategy for economic redevelopment, should thus be accompanied with an integrated programme of related activities aimed at enhancing the local identity and embracing the rural historical settlements, including the ancient windmills as an unavoidable com-



**Fig. 4** | Antikythera: View of the Aplytares Cape and of the lighthouse on the southern coast of the island (credit: N. Patsiouris).



**Fig. 5** | Antikythera: View of the lighthouse (1926) on the southern coast of the island (credit: N. Patsiouris).



**Fig. 6** | Antikythera: View of the Kamarela beach (credit: N. Patsiouris).



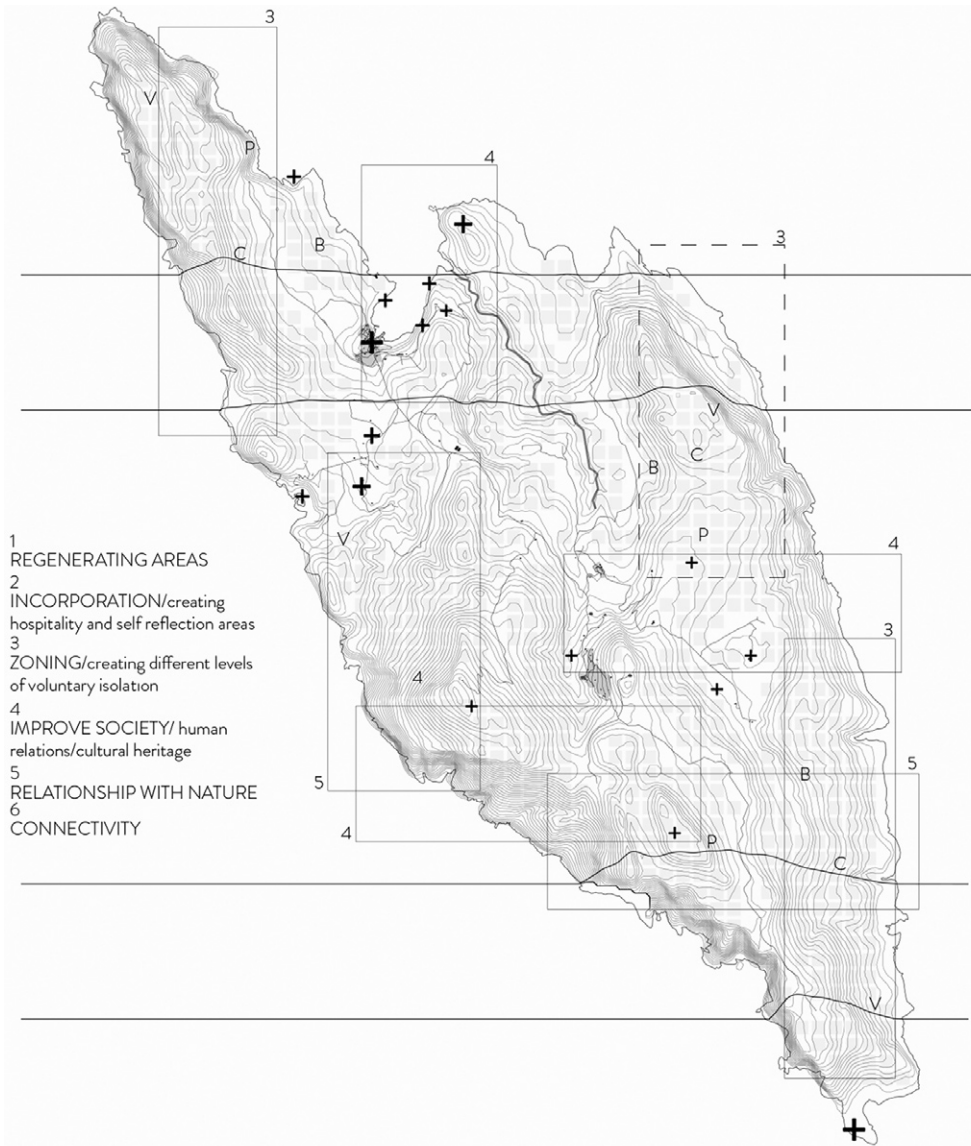
**Fig. 7, 8** | Antikythera: Typical view of the island's landscape; View of the Port (credits: N. Patsiouris).

ponent also for the definition of strategic approaches (Fig. 9). Finally, the intangible heritage was addressed highlighting, on the one hand, the cultural knowledge of crafts and skills handed down from one generation to the next and, on the other hand, a corpus of oral traditions and rituals as a fundamental piece of the deep and wide narrative of the island's cultural landscape, shared with the local system from Kythera to western Crete.

**Rethinking design approaches** | On the basis of the interpretative analysis of the place, rethinking design approaches are presented and supported by case studies, disclosing possible modes of intervention to be applied in similar Mediterranean landscapes (Fig. 10). In the context of introducing a revisited meaning, the design project should provide the framework for a rereading, rethinking and revaluation of contemporary activities connected with tourism, as the latter are regarded as active tools in sustaining authenticity and fostering a new sense of place. The redesign and reinterpretation of energy and natural infrastructures, as well as man-made systems that acknowledge the local natural and climate resources, topographic and landscape features may, in fact, offer new possibilities for the regeneration of insular Mediterranean areas.

**Connectivity: unfolding overlapping systems of values and meaning** | In the Mediterranean region, where landscape is viewed as an anthropic system, as one single continuum of urban fabric and natural areas, design recognizes the systemic dimension of the evolving structure of the relationships over time (Saggio, 2004). It is oriented towards the activation of a reconceptualised connectivity, physical or virtual, with the aim to mark the transition between the tangible and the intangible and to enhance spatial and symbolic connections. The revitalisation of underpopulated small islands in the Mediterranean involves the strategic development of visitation patterns of sites of historical, cultural, and natural significance. In this context, the architectural project needs to provide the structures that enhance the visitor experience by reveal-





**Fig. 9** | Antikythera: Strategic mapping of resources (credit: Charles, Daglio, Kousidi, Mounjid and Zera).

ing, rendering available, and intersecting places of interest present in that area. First, because it introduces systems that give order to the inherent features and elements of the landscape and contribute to their protection and conservation. Second, because it strengthens the links between the spatial and the symbolic and reveals the didactic character of the landscape. Accordingly, the following case studies are presented to

portray the connectivity approach first on a local scale and then simultaneously on a regional scale.

The design of a New Archaeological Park for the ancient city of the island of Milos (Cyclades, Greece) by Doxiadis+ architects (2017-ongoing), for instance, centers around the creation of a network of choreographed pathways and access points, aiming to reveal the multistratified character of the landscape which extends beyond its aesthetic, perceptive dimension. The landscape hence emerges as a system charged with archaeological/historical (medieval castle and villages, Christian catacombs, ancient town and harbour, churches) and natural/cultural (terraces, olive groves) values. The Tudela-Culip project at the Cap de Creus Natural Park, Spain by EMF Landscape Architects (2010), similarly, has aimed at the restoration of a site of natural, geological, and botanical value on the Iberian Coast, previously occupied by a private holiday village (Club Med) which ceased activity in 2003. The enhancement of a system of pathways and viewpoints, with the promotion of circular routes, so as to socially valorize both the natural and humanized layers of the place, the restoration of the ecosystem dynamics inherent in the area, and the reconstruction of the topography of the site were the project's main lines of intervention (Konaxis, 2018).

On a broader scale, the multiscale view embedded in the connectivity approach, entails the attempt at encompassing the local holistic interrelations in continuity with a wider network of cultural and physical significance. The Phoenician Route, one of the Cultural Routes of the Council of Europe, connects different countries to reinforce the historical links created thanks to the ancient civilizations, thereby promoting the Mediterranean culture and establishing new relationships between man and the surrounding cultural heritage, as well as new pedagogical and responsible tourism models.

In the case of Antikythera, the archaeological heritage enhancement should be targeted to conceive new fruition modes following a connectivity approach: It should both strengthen the relations between the different sites (on land and underwater), devise new infrastructures and educational paths across the surrounding inland and water landscape, and make accessible the island's antiquities in a broader network of tourism and research facilities, including similar archaeological diving spots and underwater ancient remains in the central Mediterranean region. Given that the enhancement of the island's archaeological heritage may not be sufficiently prominent to attract visitors, it can benefit from a deeper integration with other modes of tourism to be developed on the island and acquire a new cultural significance, educational in-depth meaning and economic feasibility when belonging to a more comprehensive visit tour.

**Resignificance: introducing new productive activities, valorizing local resources** | Contemporary projects, such as the Roadmap 2050 – A Practical Guide to a Prosperous, Low-carbon Europe (2010) by the Office of Metropolitan Architecture (OMA) and the European Climate Foundation (ECF), have speculated that the southern Euro-



**Fig. 10** | Antikythera: Rethinking agricultural activities through an eco-tourism perspective (credit: Daglio, Goi, Gronchi, Kousidi and Rivatta).

pean sunbelt regions may comprise a regional network, connected on the basis of their energy potential and common geopolitical issues, so as to draw upon geographic diversity with the drive towards sustainable enhancement (Willis et alii, 2016). In the context of the Mediterranean underpopulated islands, a renewed approach to the valorisation of local resources may hold the key to the introduction of new management production systems: these systems involve the introduction of new forms of economic activity, new functions and new management actions which may foster long-term investments and activate the connectivity among island communities in close proximity. At the core of this approach is the introduction of new activities or the interpretation of existing ones, both linked to the development of new meaning (Michalena, 2008): wind turbines in lieu of windmills (renewable energy), aquaculture in lieu of agriculture (production), ecotourism in lieu of agritourism (tourism).

The National Marine Park of Alonissos and Northern Sporades, Greece (NMPANS), for instance, has been at the center of the small-scale eco-tourism development program of the island of Alonissos with the aim to enhance its social and economic progress, by raising awareness regarding environmental protection and conservation in the local community and by generating revenue to be implemented in the management and conservation of the protected area. However, the protection and preservation of the natural richness of protected areas requires ‘a holistic policy’ that includes «[...] the development of necessary infrastructure, the proper organization of services ren-

dered, and the creation of competent administrative bodies [...] followed by a general environmental protection policy» (Oikonomou and Dikou, 2008, p. 855), which considers the needs of the local and regional communities. The NMPANS model is then equated to «[...] a real brand that holds together, as in a mosaic, the naturalistic, socio-cultural and tourist characteristics of the area» (Konaxis, 2018, p. 129).

Not limited to naturalness but perceived as a model of reinterpreted agritourism, ecotourism may be deployed as a model that leads to the empowerment of the local community of Antikythera, in line with a recent attention drawn on the potential of small islands in the Mediterranean to serve as ecotourism destinations (Scheyvens, 1999) due to the attractiveness of the landscape, the presence of natural protected areas and a high level of wilderness, owed to the limited low scale of human intervention and their geographical isolation. A further factor beneficial to ecotourism development is that on small islands the phenomenon of ‘habitat fragmentation’, which sees the dispersion of wild areas, understood as prospective ecotourism venues, across the archipelago, is not observed (Agius et alii, 2019). Given the geographical position of Antikythera island, its small size and its wide range of geohistorical features, such a model may introduce new nature- and education-based activities (Fig. 11), targeted on sustainable development, by drawing upon elements of the terrestrial and marine flora and fauna of the island (Tzanoudakis et alii, 1998). It may ultimately bring about the enhancement of the marine, the natural and the cultural heritage of the island, simply by placing different elements into a unitary system, thereby enhancing environmental awareness.

**Participation: engaging local communities in new hospitality systems** | The project should provide the framework for re-reading, re-thinking, and re-evaluating the archaeological and modern, tangible and intangible heritage of a given place, so as to introduce new connections with tourism, to sustain and preserve authenticity, and to foster a new sense of place. The revitalisation of underpopulated islands in the Mediterranean context involves the empowerment of local communities through their involvement in the design, administration, and maintenance of new types of tourism development mediated through archaeological and modern heritage. The participation of visitors in the daily activities of the local communities in order to acquire non-mediated experiences from productive activities, while reinforcing agropastoral touristic development (fishing, pastoralism, beekeeping), as well as from activities connected with tradition (rituals, customs, and celebrations), thus preserving intangible cultural heritage, are actions included in this strategy.

The ongoing Three Peak Sanctuaries project in the village of Gonies, Central Crete, for example, centers around the field of community archaeology, seen here as a strategy to regenerate the local community (Tsaravopoulos and Fragou, 2013). The project is targeted at a village of approximately 180 inhabitants which from the 1940s onwards has suffered from depopulation and decline and aims at the «[...] development of public outreach programs in collaboration with the communities themselves» (Kyr-

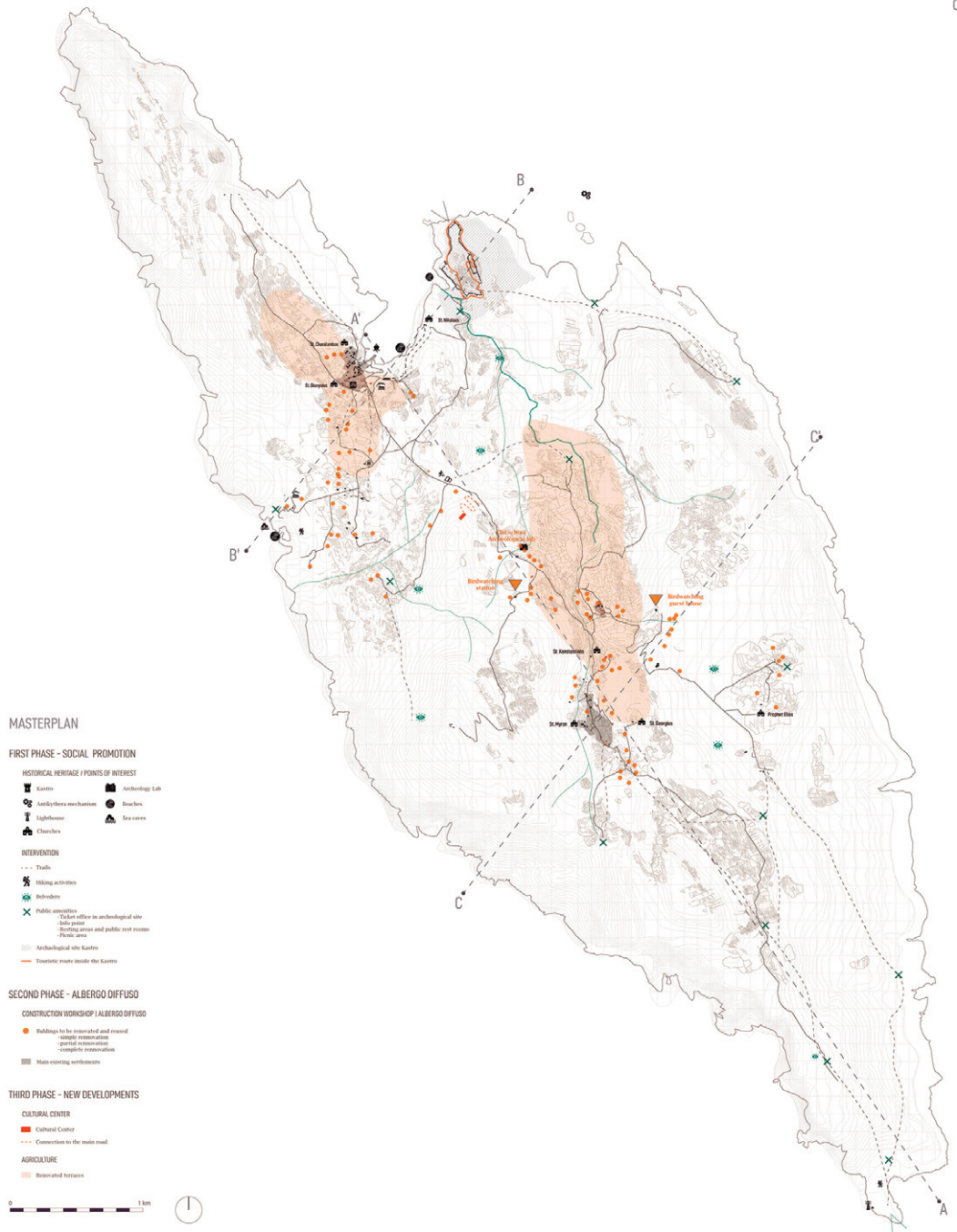


iakidis and Anagnostopoulos, 2017, p. 336). It embraces the in-depth and long-standing involvement of the local inhabitants in the planning process of community archaeology programs. It argues for the necessity of «[...]ground-up understanding of and involvement with local power relations and networks, rather than simply a good, top-down management plan» (Kyriakidis and Anagnostopoulos, 2017, p. 336) to ensure the sustainability of such programs.

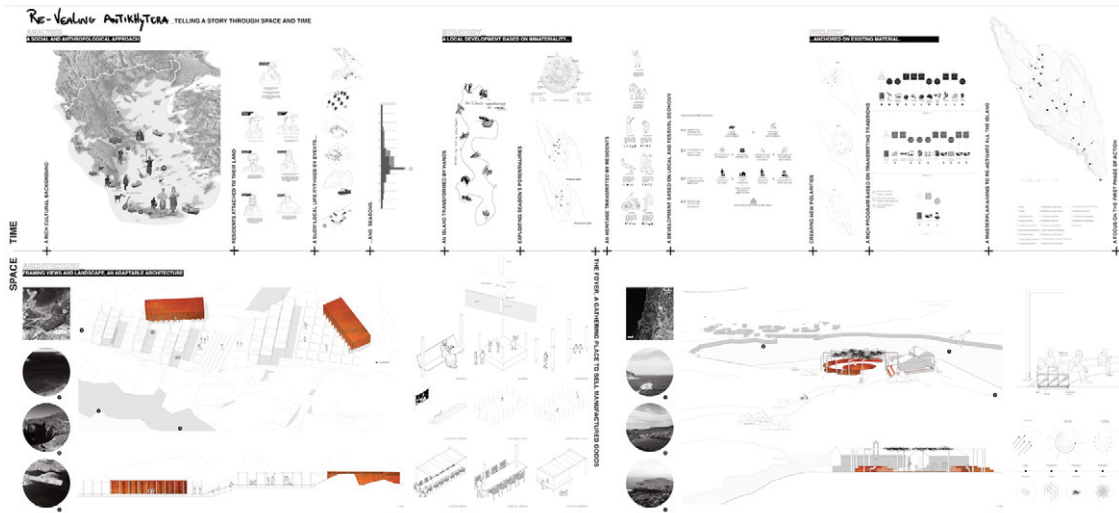
With reference to the regeneration of Antikythera, recent studies have called for the development of heritage tourism, valorising the archaeological sites located on the island as a future resource of touristic activities. This engagement of «[...] local communities in heritage projects may [...] enable cultivating an optimistic attitude for tourism development that is socially and culturally sustainable» (Fouseki and Alexopoulos, 2019, p. 1282). Conversely, the introduction of alternative tourism schemes centered on the participation of visitors and volunteers in the archaeological excavations active on the island «[...] is viewed as an opportunity to create a museum space for the exhibition of the moveable excavation finds. [The need of contextualizing] perceptions of archaeological heritage within wider perceptions of the place on which archaeological remains are located» (Fouseki and Alexopoulos, 2019, p. 1282) is considered essential in revealing ‘alternative’ archaeologies, histories and stories, which can be incorporated into the management of archaeological sites (Fig. 11).

**Communication: introducing new narratives** | A final approach to conceiving regeneration strategies relies on communication and the rethinking of the common imageries related to the place. However, a shared inclusive attitude should be enacted, beyond a mere commercial place-branding activity, targeting the spatial and social identity of the place possibly through a multidisciplinary and collaborative process (Rivas, 2015), especially for a long-lasting intervention (Fig. 12). Creativity has long been the trigger to start «[...] not only maintenance or improvement of the city, but full-blown actions of re-signifying the relationships, the bonds of symbols and values within communities and places, adding a sense of belonging and generating social capital, integration, and renewed trust» (Battisti, 2020, p. 85). Aimed at transforming abandoned territories in open air contemporary art exhibitions, such as in the case of Fanzara (Spain), Favara and Casacalenda (Italy), or at creating new local communities of artists, as in Le Bruc near Barcelona or Bussana Vecchia, Ostana (Italy) and many others.

In the case of Susak, Croatia, the strategies that have aimed to address the depopulation of the island involve the creation of new infrastructures (seafront development) and ‘diffuse hotel’ tourist accommodation also as a means to reactivate the historical economic activity of winemaking. With reference to the Domus Susak project, Stefania Staniscia (2013, p. 261) writes: «[...] the largely family-owned tourism business evolved, in the first years of the twenty-first century, into a form of Total Leisure Experience. [...] Well aware of the island’s tourist potential, the Cosulich family and his project grew ambitious: he planned on extending the vineyard to 100 hectares and



**Fig. 11 |** Antikythera: Formulation of integrated participation strategies to be developed through several phases over time (credit: Daglio, Iacobone, Kashchuk, Kousidi, Mendes-Silveira and Sokratous).



**Fig. 12** | Antikythera: Narrating the intangible heritage through thematic itineraries in the landscape (credit: Daglio, Gutty, Kousidi, Palau and Sanogo).

transforming the island into an exclusive resort by buying and restoring uninhabited buildings and creating an ‘albergo diffuso’ [...]. These ideas are in line with typical urban planning guidelines, aiming to both protect the environment and promote the development of infrastructures that may improve the territory’s accessibility and appeal, with the goal of making the island attractive to the tourism market». Accordingly, the previously abandoned wine making activity was thus reinterpreted and communicated as part of a wider touristic experience.

In the case of Antikythera, the castaway experience due to the remoteness of the area can become the opportunity to provide new forms of transformational or escape tourism following in the steps of the ancient monks’ spiritual retreats or the political exile.

**Conclusions** | Following the design-driven research outcomes on the Antikythera case study some more general considerations can be outlined to contribute to the regeneration strategies debate about rural depopulation and abandonment. As the pandemic has already underlined, the deployment of digital infrastructures may be regarded as a tool to broaden and strengthen this approach, offering a fundamental opportunity to support the design and implementation phases, to drive participatory processes and use innovative solutions to improve their resilience, to build on local strengths and opportunities; a strategy which has already been launched by the EU through programmes and policies from the EU Action for Smart Villages (2017) and been included in the European Green Deal (2020). In the quest to strengthen the resilience of Mediterranean landscapes even minor islands may be considered as significant test subjects to «[...]

generate lessons in positive landscape management», as clearer samples of the multi-layered complex reality that are Mediterranean cultural landscapes. A reality which is nourished by the rich diversity and long-standing systemic interrelation between people and nature can offer multiple opportunities to reinterpret and retrace renewed ecological and economical balances embedding «[...] rural landscapes in their past cultures and encouraging the genuine empowerment of local people and communities in delivering distinctive future landscapes which reflect history and heritage» (Agnoletti, 2014, p. 290).

In the long run, particular attention is being drawn to the extended role of the architect, which entails the interweaving of knowledge and practices that intersect different disciplines, scales, contexts, stakeholders, and communities, originating from a «[...] collective experience that might hold the key to a new intuition for the multiple scales of climate change» (Coen, 2016, p. 39), also with reference to Mediterranean territories. As design is increasingly called to address the challenges in the long-term sustainable development of these territories, the need to embrace the notion of architectural organisms rather than of singular artefacts, plays a central role and demands the creation of new synergies between design and research.

## Notes

1) On Antikythera, a climate change observatory, the PANhellenic GEophysical observatory of Antikythera (PANGEA), has already been installed, comprising a research infrastructure that monitors and records climate change, air quality and severe weather, supported by an ERC Grant; it is the first trigger of a possible broader redevelopment strategy. Further research initiatives linked to the area include: the Antikythera Survey Project – ASP (Trent University, University College London; Greek Archaeological Service; under the aegis of the Canadian Institute in Greece and the Hellenic Ministry of Culture; 2005-2010) which explored the long-term history and human ecology of the island – the ‘complex ecology of humans, plants, animals and birds that have developed in tandem with the most recent phase of human occupation’ – through combined interdisciplinary research methods, and the Antikythera Bird Observatory (Hellenic Ornithological Society) documentation project.

## References

Agius, K., Theuma, N., Deidun, A. and Camilleri, L. (2019), “Small islands as ecotourism destinations – A central Mediterranean perspective”, in *Island Studies Journal*, vol. 14, issue 2, pp. 115-136. [Online] Available at: [doi.org/10.24043/isj.97](https://doi.org/10.24043/isj.97) [Accessed 10 April 2021].

Agnoletti, M. (2014), “Environmental Thinking and Cultural Values – A Reflection on Environmental Globalisation and the Mediterranean Culture”, in *Global Environment*, vol. 7, issue 2, pp. 257-290. [Online] Available at: [jstor.org/stable/43201709](https://www.jstor.org/stable/43201709) [Accessed 13 April 2021].

Battisti, A. (2020), *Resilience of inner areas – Regeneration and enhancement strategies in small towns*, Technische Universität München, München. [Online] Available at: [doi.org/10.14459/2020md1554213](https://doi.org/10.14459/2020md1554213) [Accessed 10 April 2021].

Bevan, A., Conolly, J., Colledge, S., Frederick, C., Palmer, C., Siddall, R. and Stellatou, A. (2013),



“The Long-Term Ecology of Agricultural Terraces and Enclosed Fields from Antikythera, Greece”, in *Human Ecology*, vol. 41, pp. 255-272. [Online] Available at: doi.org/10.1007/s10745-012-9552-x [Accessed 15 March 2021].

Bevan, A. and Conolly, J. (2010), “Terraced fields and Mediterranean landscape structure – An analytical case study from Antikythera, Greece”, in *Ecological Modelling*, vol. 222, issue 7, pp. 1303-1314. [Online] Available at: doi.org/10.1016/j.ecolmodel.2010.12.016 [Accessed 25 February 2021].

Bevan, A. and Conolly, J. (2003), *Mediterranean Islands, Fragile Communities and Persistent Landscapes – Antikythera in Long-Term Perspective*, Cambridge University Press, Cambridge. [Online] Available at: doi.org/10.1017/CBO9781139519748 [Accessed 25 February 2021].

Bory de Saint-Vincent, J.-B. G. M. and Schneider, V. (1823), *Nouvel Atlas pour servir à l'histoire des Iles Ioniennes – Contenant cartes, plans, vues, costumes et médailles*, Dondey-Dupré et Fils, Paris.

Brown, T. (2008), “Design Thinking”, in *Harvard Business Review*, vol. 6, pp. 84-92. [Online] Available at: readings.design/PDF/Tim%20Brown,%20Design%20Thinking.pdf [Accessed 20 November 2020].

Ciaccio, C. (1984), *Turismo e microinsularità – Le isole minori della Sicilia*, Pàtron, Bologna.

Coen, D. R. (2016), “Seeing Planetary Change, Down to the Smallest Wildflower”, in Graham, J. (ed.), *Climates – Architecture and the Planetary Imaginary*, Columbia Books on Architecture and the City, Lars Müller Publishers, Zurich, pp. 34-40.

Coronelli, V. (1688), *Repubblica di Venezia p. IV – Città, Fortezze, ed altri Luoghi principali dell'Albania, Epiro e Livadia, e particolarmente i posseduti da Veneti descritti e delineati dal p. Coronelli*, Venezia. [Online] Available at: laskaridisfoundation.org/wp-content/uploads/2020/04/Coronelli-V\_Fortezze\_ed\_altri\_luoghi\_principali\_1688\_IAL.pdf [Accessed 20 March 2021].

Cramer, W., Guiot, J., Fader, M., Garrabou, J., Gattuso, J.-P., Iglesias, A., Lange, M. A., Lionello, P., Llasat, M. C., Paz, S., Peñuelas, J., Snoussi, M., Toreti, A., Tsimplis, M. N. and Xoplaki, E. (2018), “Climate change and interconnected risks to sustainable development in the Mediterranean”, in *Nature Climate Change*, vol. 8, pp. 972-980. [Online] Available at: doi.org/10.1038/s41558-018-0299-2 [Accessed 20 March 2021].

Fouseki, K. and Alexopoulos, G. (2019), “Senses of Place, Senses of Past – The Case of Antikythera and its Castle, Greece”, in *Heritage*, vol. 2, issue 2, pp. 1274-1285. [Online] Available at: mdpi.com/2571-9408/2/2/82 [Accessed 24 June 2021].

Harmansah, O. (2020), “Deep Time and Landscape History – How Can Historical Particularity Be Translated?”, in Wiggin, B., Fornoff, C. and Kim, P. E. (eds), *Timescales – Thinking Across Ecological Temporalities*, University of Minnesota Press, Minneapolis, pp. 39-54.

Konaxis, I. (2018), *Paesaggi culturali ed ecoturismo | Cultural landscapes and ecotourism*, FrancoAngeli, Milano.

Kyriakidis, E. and Anagnostopoulos, A. (2017), “Engaging Local Communities in Heritage Decision-Making – The Case of Gonia, Crete, Greece”, in *Journal of Eastern Mediterranean Archaeology and Heritage Studies*, vol. 5, issue 3-4, pp. 334-348. [Online] Available at: doi.org/10.5325/jeasmedarcherstu.5.3-4.0334 [Accessed 20 March 2021].

Michalena, E. (2008), “Using Renewable Energy as a Tool to Achieve Tourism Sustainability in Mediterranean Islands”, in *Études caribéennes* [En ligne], issue 11. [Online] Available at: doi.org/10.4000/etudescaribeennes.3487 [Accessed 15 April 2021].

Niewiadomski, P. (2020), “Covid-19 – From temporary de-globalization to a re-discovery of tourism”, in *Tourism Geographies*, vol. 22, issue 3, pp. 651-665. [Online] Available at: doi.org/10.1080/14616688.2020.1757749 [Accessed 23 January 2021].

Oikonomou, Z. S. and Dikou, A. (2008), “Integrating Conservation and Development at the National Marine Park of Alonissos, Northern Sporades, Greece – Perception and Practice”, in *Environ-*

*mental Management*, vol. 42, issue 5, pp. 847-866. [Online] Available at: doi.org/10.1007/s00267-008-9163-x [Accessed 06 February 2021].

Oppido, S., Ragozino, S., Icolari, D. and Micheletti, S. (2019), "Landscape as Driver to Build Regeneration Strategies in Inner Areas – A Critical Literature Review", in Calabrò, F., Della Spina, L. and Bevilacqua, C. (eds), *New Metropolitan Perspectives – ISHT 2018 – Smart Innovation, Systems and Technologies*, vol. 100, Springer, Cham, pp. 615-624. [Online] Available at: doi.org/10.1007/978-3-319-92099-3\_69Oppido [Accessed 23 January 2021].

Palmer, C., Colledge, S., Bevan, A. and Conolly, J. (2010), "Vegetation recolonisation of abandoned agricultural terraces on Antikythera, Greece", in *Environmental Archaeology*, vol. 15, issue 1, pp. 64-80. [Online] Available at: doi.org/10.1179/146141010X12640787648973 [Accessed 15 March 2021].

Rivas, M. (2015), *Innovative Place Brand Management, Re-Learning City Branding*, URBACT-CityLogo final report. [Online] Available at: urbact.eu/sites/default/files/final\_report\_urbact\_citylogo\_2012-2015\_miguel\_rivas.pdf [Accessed 15 April 2021].

Saggio, A. (2004), "Mare Nostrum", in Baglivo, C. and Galofaro, L., *Odissea Digitale – Un viaggio nel Mediterraneo*, Testo & Immagine Editore, Torino, pp. 5-7.

Scheyvens, R. (1999), "Ecotourism and the empowerment of local communities", in *Tourism Management*, vol. 20, issue 2, pp. 245-249. [Online] Available at: doi.org/10.1016/S0261-5177(98)00069-7 [Accessed 10 April 2021].

Staniscia, S. (2013), "The Island Paradigm and the Mediterranean", in Petrov, A. (ed.), *New Geographies 05 – The Mediterranean*, Harvard Graduate School of Design and Actar, Cambridge (MA), pp. 255-264.

Tsaravopoulos, A. and Fragou., G. (2013), "Archaeological Sites as Self-Sustained Resources for Economic Regeneration – Towards the Creation of Living Archaeological Parks on the Islands of Kythera and Antikythera", in *Conservation and Management of Archaeological Sites*, vol. 15, issue 1, pp. 94-108. [Online] Available at: doi.org/10.1179/1350503313Z.00000000049 [Accessed 10 April 2021].

Tzanoudakis, D., Iatrou, G., Panitsa, M. and Trigas, P. (1998), "Contribution to the study of the Greek insular flora – Antikythera and the islets around Kythera", in Tsekos, I. and Moustakas, M. (eds), *Progress in Botanical Research, Proceedings of the 1st Balkan Botanical Congress – Dordrecht*, pp. 177-180. [Online] Available at: doi.org/10.1007/978-94-011-5274-7\_41 [Accessed 15 April 2021].

Vogiatzakis, I. N., Pungetti, G. and Mannion, A. M. (eds) (2008), *Mediterranean Island Landscapes – Natural and Cultural Approaches*, Springer, Cham.

Ward, C. (2020), "The annihilation of time by space in the Covid-19 pandemic downturn", in *Dialogues in Human Geography*, vol. 10, issue 2, pp. 191-194. [Online] Available at: doi.org/10.1177/2043820620935685 [Accessed 15 March 2021].

Willis, D., Braham, W. W., Muramoto, K. and Barber, D. A. (2016), *Energy Accounts – Architectural Representations of Energy, Climate, and the Future*, Routledge, London-New York.