

## Island dynamics and Minoan expansion in the Aegean: the Kythera Island Project

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*In recent years archaeologists have become increasingly interested in the investigation of island societies. At a global level, discoveries in the Pacific, Caribbean, Mediterranean and elsewhere have greatly improved our understanding of the antiquity and dynamics of island life. Now archaeologists at the Institute, together with other colleagues, have embarked on a long-term interdisciplinary study of the island of Kythera in the Aegean.*

Island archaeology in the Mediterranean benefits from many unique advantages, not least the remarkable wealth of detailed archaeological data accumulated over the past century or so, and the potential for integration with rich historical data over more than two-and-a-half millennia. Another particular challenge of Mediterranean archaeology is to explore the range of insular life in a sea of islands that display vast diversity in geographical and cultural configuration and in the relationships between islands and the continental fringe.<sup>1</sup> The Kythera Island Project (KIP) aims to shed light on patterns of insular life in the Mediterranean as exemplified by the past and present of the Aegean island of Kythera.

#### An island in the stream

The Greek island of Kythera lies in the southwestern corner of the Aegean Sea, between the rugged capes of the southern Peloponnese and the much larger island of Crete (Fig. 1). Its position midway between these two geographically and culturally distinct regions makes Kythera, and its

much smaller neighbour Antikythera, an ideal location in which to study the role of an island as a stepping stone, but also a filter, in movements of people, animals, plants, objects and ideas. Kythera has indeed acted as such since an undetermined time far back in the Ice Age, when the full-size ancestors of Crete's first bizarre and sadly now-extinct fauna of pygmy hippopotami, elephant and deer crossed from the Peloponnese via the island and its intervening seaways. Much more recently, in 1941, the island's coasts served as a refuge for survivors from Royal Navy vessels sunk while patrolling the straits during the Battle of Crete, and even today ferry-links tie Kythera into the economies of western Crete and the southern Peloponnese.

In between these chronological poles, Kythera has witnessed the comings and goings of a remarkable variety of people, cultures, states and empires, including pioneer settlers near the end of the Neolithic, later arrivals from Minoan Crete, possibly Phoenicians who (at least according to later tradition) introduced the cult of the eastern sex-goddess Aphrodite; rival soldiers from

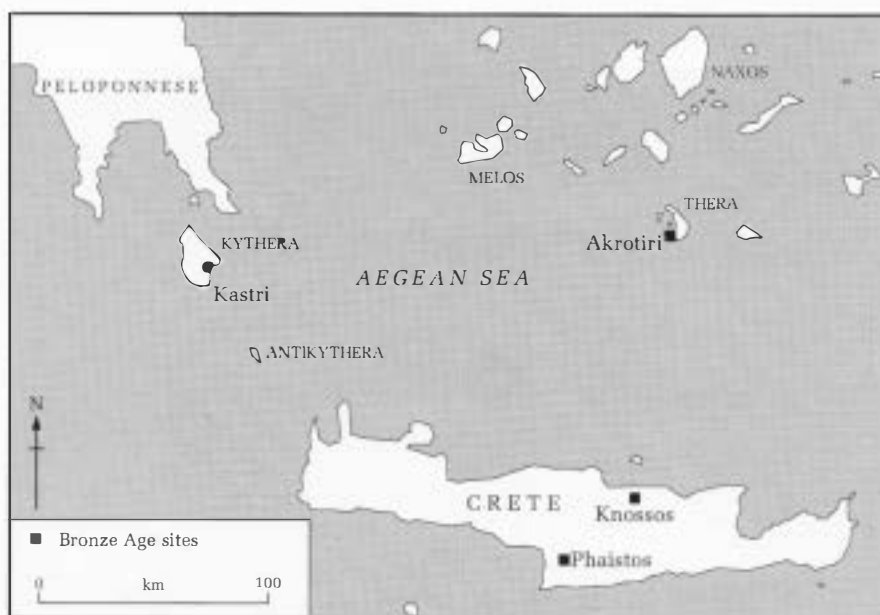
Sparta and Athens, and the successive imperial emissaries of Rome, Byzantium, Venice and, for a few decades after the Napoleonic wars, Britain. Throughout this period a parallel and no less vital story has been the creation, maintenance and reformation of local island identities, by people of long or recent residence on the island, and among Kytherans living abroad.

In 1998, for these and other similar reasons, the island was chosen as the focus of the KIP, an interdisciplinary programme of field- and laboratory-based research that aims to explore the long-term dynamics of the island's cultural and natural history.<sup>2</sup> The KIP is based at the Institute in London, but the team also includes researchers from the Fitch Laboratory of the British School at Athens, from the universities of Sheffield, Oxford, Cambridge, and from Baylor University (Texas). The team's expertise covers archaeology, geoarchaeology, the scientific analysis of pottery, clays and metalworking debris, geographical information systems (GIS), vegetational analysis, historical geography and social anthropology. This coverage is soon to be extended by the addition of an island biogeographer, whose task will be to analyze patterns of faunal colonization and transference between the island and adjacent areas.

#### Discovering the Minoans of Kythera

One of the most challenging questions addressed by the KIP is the pattern of Kythera's Bronze Age history. In this respect, our fieldwork builds upon the foundations laid in the 1960s by the archaeologists Nicolas Coldstream (later Yates Professor at UCL) and George Huxley, who excavated the island's principal coastal entrepôt at the site of Kastri (Fig. 2).<sup>3</sup> This excavation was notable for uncovering startling evidence of an important colony of Minoans (people from Bronze Age Crete) that underlay the later Classical, Roman and early Byzantine levels. This colony thrived in particular during the first half of the second millennium BC (the Middle and early Late Bronze Age), a period that saw the Minoan palace-states of Crete, centred at places such as Knossos and Phaistos (Fig. 1), expand their power across much of the southern Aegean, creating networks of trade and perhaps political dominance that secured the inflow of metals and other materials to the palatial centres.

The settlement at Kastri was contemporary with other island sites that display marked Minoan influence, the most famous of which is Akrotiri (Fig. 1) on Thera (also known as Santorini) – which was preserved for posterity in a Pompeii-like condition by an eruption of the island's volcano. Intriguingly, on Kythera the lowest stratified level at Kastri, sitting on bedrock, revealed even earlier pottery of Cretan type, dating to the Early Bronze or pre-palatial period (c. 2500–2000 BC), and broadly co-existent with nearby material of local type, whose



**Figure 1** The southwestern Aegean, showing the location of the island of Kythera and the Bronze Age sites mentioned in the text.



**Figure 2** View of the site of Kastri, located on the promontory in the foreground, with the peak sanctuary of Agios Georgios on the summit of the mountain in the distance.

ultimate stylistic origins lie to the north, on the Peloponnesian mainland. In exactly what sense this pre-palatial Minoan pottery makes Kastri the oldest Minoan colony in the Aegean remains open to debate. But clearly, the demographic and social processes by which Kastri and Kythera became “minoanized” – an admittedly unmelodious term, yet one that has the virtue of strict neutrality concerning the ethnic and cultural issues involved – began early, and they involved complex interactions with indigenous people already living on the island.

A further breakthrough in our understanding of minoanization on Kythera was made early in the 1990s by the leading Greek archaeologist Yiannis Sakellarakis, who led the excavation of a spectacular peak-top religious sanctuary of distinctive Minoan type on the summit of the mountain of Agios Georgios (St George), which dominates Kastri, its coastal plain and much of inland Kythera (Fig. 2).<sup>4</sup> On Crete, such peak sanctuaries are considered to have played a key role in the integration, via shared ritual practices, of communities scattered across the territory controlled visually from the peak. The recent discovery at Agios Georgios therefore raised the possibility of a Minoan-period sacred landscape extending across at least part of the island. More generally, it underlined how little was known about the process of minoanization on Kythera beyond specific sites – in short about minoanization as a phenomenon in the island’s wider cultural landscapes.

**Archaeological fieldwork 1998–99<sup>5</sup>**

The centrepiece of the KIP’s archaeological fieldwork is a 4-year intensive field survey of the landscapes of central Kythera, covering all periods from earliest prehistory to the present. This was considered essential if isolated windows on the past – such as Kastri, Agios Georgios and other known

sites of Classical, Roman and Byzantine date – were to be placed within a broader regional context. Moreover, the experience of the past quarter century of research has established that such field surveys are an essential component of any serious attempt to analyze the long-term history of Aegean societies and landscapes. Accordingly, in the summers of 1998 and 1999, a group of 20–30 students began surveying the thorny sun-blasted terrain of the island by fieldwalking (Fig. 3). The group consisted of postgraduates and undergraduates from the Institute, as well as from other universities in the UK and abroad. Conscious of the need to build bridges between a large foreign archaeological team and local people, we place special emphasis on the participation of many Greek students,

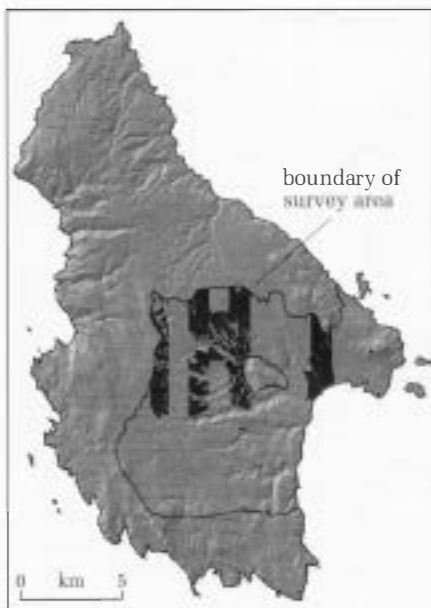
most of whom have themselves been trained at UCL.

So far, slightly under 30km<sup>2</sup> of Kythera has been investigated in this way. The survey teams are made up of between four and seven people apiece, walkers in each team being spaced at 15 m intervals and traversing small areas known as tracts.<sup>6</sup> Information on densities of archaeological material, together with a range of other ancient and modern data, are recorded for each tract. By 1999 some 3300 tracts had been fieldwalked (Fig. 4), creating a mosaic of data that facilitates the identification of archaeological sites. These sites are subsequently investigated in more detail, usually by gridding and the controlled collection of material. So far 86 archaeological sites have been encountered, the vast majority of which were unknown prior to the present survey. The climax of the survey to date has been surface investigation of Kastri itself by tract walking, gridding, kite-borne photography (Fig. 5) by Tim Cunningham of Louvain University, and detailed documentation of the site’s rock-cut cemeteries. The initial results suggest that Kastri was considerably larger than hitherto suspected, with an area of c. 9–10 ha, at least two thirds of which appears to have been occupied in the heyday of the Minoan colony, during the first half of the second millennium BC.

Several other aspects of our work are also well advanced. Sampling for thin-section analysis under the microscope of pottery types found in each occupation phase at Kastri, and of the island’s diverse clay sources, has been undertaken at the Fitch Laboratory. This is shedding new light on the technological transition from indigenous (probably originally Peloponnesian) to Minoan pottery-making traditions at Kastri, on wider patterns of pottery making on Kythera, and on off-island trade. In the summer of 1999, a promising



**Figure 3** Surveying a Kytheran landscape by fieldwalking, summer 1999.



**Figure 4** Map of Kythera, generated by GIS, showing the extent of the survey area and of the tracts (solid black) within it that were fieldwalked in 1998–99.

start was made by our geoarchaeological team from Sheffield University, who began to identify indicators of sea-level change, as well as signs of soil movement probably triggered by human action and the earliest traces of terracing to conserve soils and reduce erosion. In addition, we have begun an analysis of the island's metal sources and of the evidence for ancient metalworking found during survey.

Finally, mention must be made of the geographical information system used for the storage and analysis of data. It is designed and run by James Conolly and is used not only on Kythera but also as an MA training package in London. It allows sophisticated modelling of islanders' activities in three-dimensional space, the exploration of intervisibility between the Minoan peak sanctuary and contemporary settlements, and, more generally, it plays a key role in the continuing integration and interrogation of the project's expanding dataset.

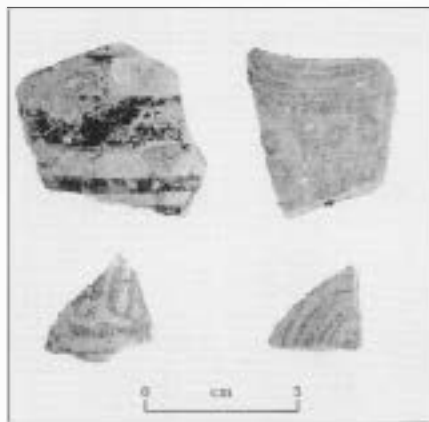
**Preliminary results and prospects**

After two field seasons, the KIP has already substantially expanded our knowledge of Kythera's early history. The island's first major horizon of settlement dates to the Early Bronze Age (c. 3200–2000 BC), although several clues indicate the presence of settlements by the last phases of the preceding Neolithic. The material culture associated with this horizon confirms that the first Kytherans came from the nearby Peloponnese. The first Minoans arrived at Kastri by c. 2500 BC, and interaction between them and indigenous communities in the island's interior is hinted at by finds of a few sherds of Minoan-type pottery at settlements that preserve a local/Peloponnesian material culture. However, so far no

further candidates for Minoan settlements of this date have been encountered.

The transition to the second millennium BC, when the first Minoan palace-states emerged in Crete, also saw the expansion of settlement at Kastri, but initially a complete emptying of the rest of the landscape. Within some three centuries, however, when Minoan palatial society reached its most elaborate form in the Neopalatial phase, the landscape of Kythera suddenly began to be re-settled with many small farmsteads, whose material culture is clearly derived from that seen at Kastri and on Crete itself (Fig. 6). Full interpretation of this hitherto unrecognized phenomenon must await more complete study of the material, but it seems likely to signal a further, and probably quite differently configured, horizon of colonization. The later second millennium BC (including the Mycenaean period) saw another sharp reduction of settlement that lasted in its most extreme form until the Classical period, when the population of Kythera again expanded. These cycles of settlement expansion and collapse have continued from the aftermath of the Classical period right up to the present day.

The extreme oscillations in Kythera's fortunes bear witness to the plenitude of the island's history. Our research over the next few years will focus on the fuller documentation and explanation of these oscillations, their integration with wider changes in the outside world, and their implications for shifting island identities and environments. This will involve continued fieldwork but also investigation of archival, anthropological, ecological and biogeographical data, in order to achieve the first holistic analysis of the dynamics of insularity on an Aegean island.



**Figure 6** Minoan Neopalatial painted sherds from a surface site in central Kythera.



**Figure 5** Aerial view of the site of Kastri, taken from a kite; the defensive walls of the early Byzantine shore fort are clearly visible.

**Notes**

1. For the state of contemporary island archaeology and some thoughts on future directions of research, see ch. 1 in *An island archaeology of the early Cyclades*, C. Broodbank (Cambridge: Cambridge University Press, 2000).
2. The archaeological fieldwork has been made possible thanks to support received from the British School at Athens and a permit from the Greek Ministry of Culture. To date, the project has been funded by the Institute for Aegean Prehistory, UCL's Institute of Archaeology and Graduate School, the UK Arts and Humanities Research Board, the British School at Athens, Cambridge University's Faculty of Classics, and the Society of Antiquaries.
3. J. N. Coldstream & G. L. Huxley, *Kythera: excavations and studies* (London: Faber, 1972). For a more recent discussion of the island's antiquities, see *Ta Kithira: apotin proistoriki epochi os ti Romaiokratia*, I. Petrocheilos (University of Ioannina, 1984), in Greek.
4. Y. Sakellarakis, "Minoan religious influence in the Aegean: the case of Kythera", *Annual of the British School at Athens* 91, 81–99, 1996.
5. For a fuller report on the 1998 season, see C. Broodbank, "Kythera survey: preliminary report on the 1998 season", *Annual of the British School at Athens* 94, 191–214, 1999.
6. For a summary of the basic survey methods adopted on Kythera, see J. F. Cherry, J. L. Davis, A. Demitrac, E. Mantzourani, T. F. Strasser, L. E. Talalay, "Archaeological survey in an artifact-rich landscape: a Middle Neolithic example from Nemea, Greece", *American Journal of Archaeology* 92, 159–76, 1988.