

ERASMUS+ PECUS

CASE STUDY SHEET

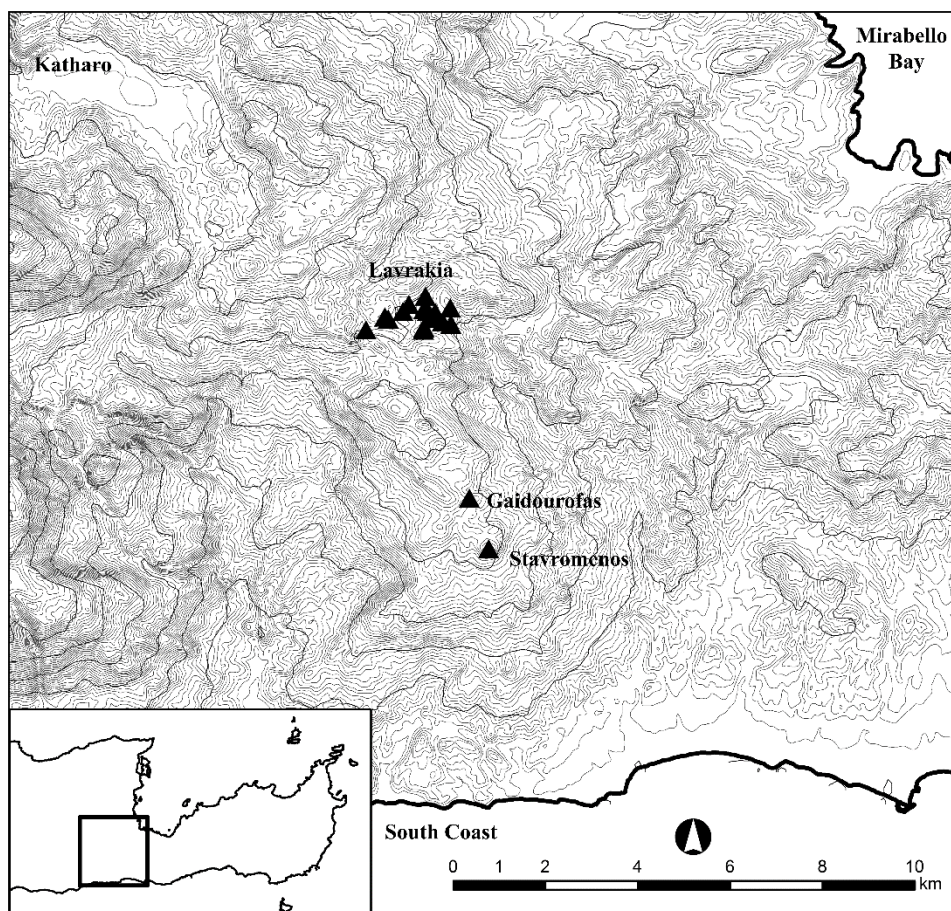
CS code	GR-01	CS Title	SOUTHEASTERN SLOPS OF MT. DIKTI (GAIDOUROPHAS AND LAVRAKIA)
GENERAL INFORMATION			
Type of case study	<input type="checkbox"/> National or regional level policy/plan/strategy <input type="checkbox"/> Local level policy/plan/strategy <input checked="" type="checkbox"/> Study/research <input checked="" type="checkbox"/> Project <input type="checkbox"/> Other		
Responsible body/Promoter	NKUA / Yiannis Papadatos, Tina Kalantzopoulou		
Location (region, locality)	Southeast slopes of Mt. Dikti, Ierapetra, Crete, Greece		
Geographical area covered	18 km ² (1800 hectares) The area is bordered by the Kokkies range to the north, and the modern villages of Kalamafka to the east, Anatoli to the south and Malles to the west. Altitudes range from 800 to 1200 m amsl.		
Year	2012-ongoing		
Summary description	<p>This case study includes a multitude of Bronze Age sites on the Southeast slopes of Mt. Dikti, east Crete. The study focuses on the economic aspects of these occupations and their role for the exploitation of the mountain resources. Special emphasis is given on the importance of the mountains for the economy of the Minoan palaces in the Neopalatial period (c. 1700-1450 BCE), during which there is a conscious effort of the palatial elites to control mountain production.</p> <p>The area is focus of a long-term archaeological project of the NKUA since 2012, which comprises two major field-works.</p> <p>1) The excavation of a large, monumental Neopalatial building at the site of Gaidourophas, which functioned as a palatial administrative centre, serving the control, storage and distribution of the mountain products to the urban centres of the lowlands</p> <p>2) The extensive survey of the surrounding hinterland identified a series of contemporary rural houses, in several sites, such as Lavrakia. The lack of flat, arable areas and the presence of long precinct walls in the surroundings of these buildings, which created large open spaces such as pens, are interpreted as evidence for a pastoral economy.</p> <p>Despite the lack of written sources, the archaeological evidence shows interesting changes through time from seasonal to permanent habitation and backwards, as well as shifting patterns of transhumance. Furthermore, this case study shows the importance of animal husbandry not only for the small mountain communities, but also for the large urban centres of the lowlands and the palatial economy in general.</p> <p>Spatial analysis included accurate mapping of the prehistoric rural buildings in relation to</p> <ul style="list-style-type: none"> 1) mountain paths, modern transhumance routes, as well as springs, streambeds and arable land. 2) the monumental administrative building at Gaidourphas <p>This spatial analysis allows</p> <ul style="list-style-type: none"> (a) inferences about the criteria on which prehistoric populations chose to build their establishments at these specific locations (b) a better understanding of the way pastoral life and economy affected the settlement patterns we observe during prehistory 		

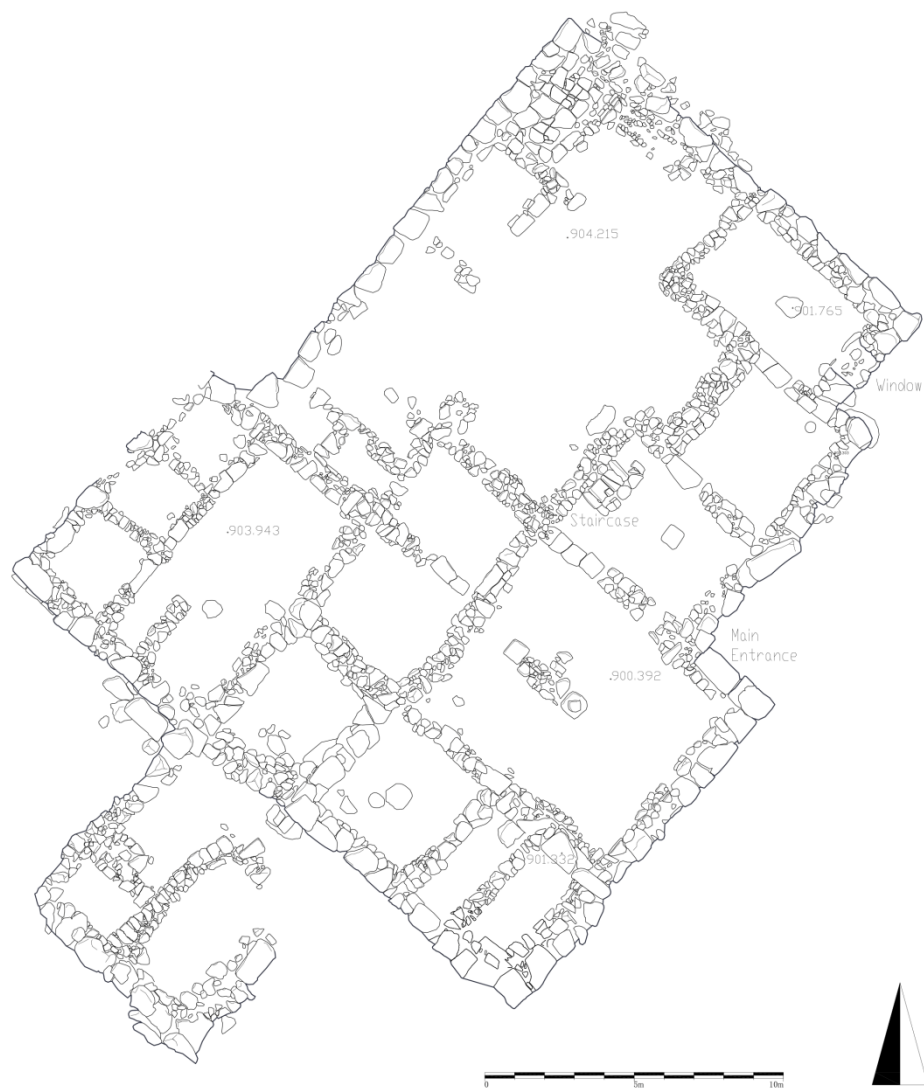
Link with laws/regulations and with other policies/plans/strategies(if any)	<p>The excavation of the Gaidourophas building and the surface survey of the surrounding areas have been carried out under the auspices of the NKUA and with official permit by the Hellenic Ministry of Culture and Sports.</p> <p>The Gaidourophas building has been declared Monument of Cultural Heritage, and is protected by the Greek Law. The full documentation of the newly identified buildings as part of the project, will eventually lead to their declaration as protected Monuments of Cultural Heritage.</p> <p>Also, almost the entire area of the case study is protected as public forest or as area for re-forestation.</p>						
PROBLEMS AND NEEDS TARGETED							
Problems	<p>Due to the lack of written sources, the main problem is to associate archaeological evidence and material culture with abstract notions, such as economic strategies, social structure, political organization, ideology or the perception of the mountains by civilizations of the past. This is always a challenge for prehistoric archaeologists, and, consequently, one of the main aims of this case study is to demonstrate what type of archaeological evidence can be used in order to infer about pastoral economy, mountain exploitation and transhumance. An additional problem is related to the fact that mountains have been neglected and scientifically marginalized by archaeologists of Minoan Crete, who tend to focus their research in the archaeologically rich palatial centres of the lowlands.</p>						
Needs	<p>In order to overcome the problems of interpretation and reconstruct the economy and life of prehistoric pastoral mountain communities on the basis of mute archaeological evidence, it is necessary to:</p> <ol style="list-style-type: none"> 1) Record and study anthropological and ethnographic cases of pastoral communities of today and the recent past 2) Record and study written sources from later historical periods referring to pastoral life and strategies of transhumance 3) Study the existing bibliography on the importance of mountain resources and animal husbandry products for the subsistence and prosperity of prehistoric (Minoan) urban and palatial centres of the lowlands <p>With the help of the above we will try to</p> <ol style="list-style-type: none"> (a) overcome the problems of interpretation of the available archaeological evidence (b) associate the existing archaeological evidence with specific economic strategies (c) understand the ways prehistoric communities coped with the demanding conditions of life on the mountains (d) associate shifts in the exploitation of mountains with specific economic, social and political changes in the lowlands 						
Quantitative data	Not available						
FOCUS, OBJECTIVES AND OUTPUTS							
Themes	<table border="1"> <thead> <tr> <th data-bbox="403 1632 692 1715">Does the case study address this theme? (YES/NO)</th> <th data-bbox="692 1632 1442 1715">If yes, how? (max 750 characters for each theme)</th> </tr> </thead> <tbody> <tr> <td data-bbox="403 1715 692 1771">NO</td> <td data-bbox="692 1715 1442 1771"></td> </tr> <tr> <td data-bbox="403 1771 692 1919">NO</td> <td data-bbox="692 1771 1442 1919"></td> </tr> </tbody> </table>	Does the case study address this theme? (YES/NO)	If yes, how? (max 750 characters for each theme)	NO		NO	
Does the case study address this theme? (YES/NO)	If yes, how? (max 750 characters for each theme)						
NO							
NO							
Spatial planning							
Protection of environment (e.g. biodiversity, water, geomorphology, soil, climate...)							


Protection/enhancement of tangible cultural heritage (e.g. historical paths, archaeological sites, architecture, terraces and field systems...)	YES	Of the prehistoric buildings under study, only one (Gaidourophas) has been declared as protected Monument of Cultural Heritage. The full documentation of the newly identified buildings as part of the project, will eventually lead to their declaration as protected monuments.
Protection/enhancement of intangible cultural heritage (e.g. historical route networks, scenic views, folklore, food, music...)	NO	
Slow mobility (cycling routes, trekking paths, etc.)	YES	All these buildings are conveniently located along or very close to the European long-distance path E4. This offers the opportunity to create a marked (pre)historical trekking route passing by the sites. Signs with maps and information could attract attention to the buildings, which could act as hot-spots along this important European path.
Economic development of mountain & rural areas (e.g. tourism, agro-food production, agriculture, livestock breeding...)	YES	Crete has a long tradition of archaeology-related tourism, due to the important archaeological sites in the lowlands, e.g. the world famous Minoan palaces at Knossos, Phaistos, Malia and Zakros. However, mountains never attracted this kind of tourism, due to the lack of archaeological sites. The declaration of the newly found buildings as protected monuments, and the preservation and enhancement of the archaeological sites will contribute to the economic development of this mountain area, by attracting knowledgeable tourists from the nearby lowlands.
INVOLVEMENT OF STAKEHOLDERS		
Actors involved	<p>1) NKUA: is the main academic promoter of the antiquities in the area. It has had and will continue to have several research campaigns, which include excavation, surface survey, mapping, documentation and study of pottery and other movable finds. These campaigns are carried out by large interdisciplinary groups, consisting of members of staff, postdoctoral researchers, and BA, MA and PhD students, as well as scientists from different disciplines such as archaeologists, geologists, conservators, geologists, archaeobotanists, archaeozoologists, etc. Also, NKUA has initiated and undertakes a special project of Public Archaeology which every year includes interviews, guided tours and other forms of public outreach, aiming at engaging the local communities in the protection of the cultural heritage of the mountains.</p> <p>2) Ephorate of Antiquities of Lasithi: is the local department of antiquities of the Hellenic Ministry of Culture. It is responsible for the protection, preservation and enhancement of all the archaeological sites in the area and it is the main local stakeholder concerning the protection of cultural heritage. It provides the necessary permits for scientific research and supervises all the work related to the antiquities of the area.</p> <p>3) Local Authorities, i.e. the Municipality of Ierapetra and the Cultural Associations of the surrounding villages (Malles, Kalamafka and Anatoli): host and support the archaeological teams, and provide valuable information about the area. These communities use the same mountain area for subsistence, following practices such as animal husbandry, cultivation of vine and fruit bearing trees, hunting and foraging. These practices are very much alike those of the prehistoric populations as manifested by the rural houses documented by this study. The mobilization and engagement of these communities in the monitoring, protection, and enhancement of this archaeological landscape through educational and participatory activities is important for the preservation of the monuments and their surrounding landscape.</p>	

Involvement procedures	NKUA has already applied to the Hellenic Ministry of Culture for archaeological work in the area of the case study, and the local Department of Antiquities (Ephorate of Antiquities of Lasithi) has provided the necessary permits. The Local Municipality and the Local Culture Associations are contacted in order to host the archaeological team and provide support and access to the remote mountain areas where the Minoan buildings exist.
Problems and challenges	Not available
EXPECTED OR ACHIEVED EFFECTS	
Type of effect	Description <i>(max 750 characters for each type)</i>
Effects on the environment (e.g. restoration of habitats, increased biodiversity, climate change mitigation or adaptation...)	Protection of the pristine landscape which surrounds the prehistoric buildings and constructions
Effects on immaterial, cultural assets (e.g. cultural landscape, scenic views, folklore...)	Re-establishing the connection between the built and the natural environment and preserving the cultural landscape of the prehistoric period, which includes both man-made and natural features
Effects on material, cultural assets (e.g. restoration of historic artefacts or buildings, restoration of traditional terraces or cultivation systems...)	Discover, preserve and protect important prehistoric buildings, which are dated to 1700-1500 BCE and are still visible on the surface today Discover and conserve a large number of prehistoric artefacts found in excavations and surface surveys in the area. These artefacts are related and can contribute to a better understanding of economy, society and everyday life on the mountains during prehistory
Effects on social and economic aspects (e.g. new jobs, new enterprises...)	Propulsion of mountain tourism, and creation of new jobs in the local communities
IMPLEMENTATION ISSUES	
Financial resources	The archaeological excavations on the mountains are funded by NKUA, the Institute for Aegean Prehistory (INSTAP), Psychia Foundation, and the surface survey by NKUA and the Greek State Scholarships Foundation (IKY).
Implementation procedures	All the procedures have already been implemented
SUPPORTING INFORMATION	

Images (pictures,
graphics, maps,
charts, etc.)





	<p>Site: Lavrakia Building: 3, Terraces & Enclosure walls</p> 
<p>References (including web links)</p>	<p>Kalantzopoulou forthcoming. "Taking the High Road: Prehistoric habitation and exploitation on the mountains of east Crete, new evidence from an extensive survey", <i>INSTAP Academic Press</i>.</p> <p>Kalantzopoulou forthcoming. "Living on the Edge: habitation on the uplands of East Crete: Preliminary results from an extensive survey". In: E. Oddo and K. Chalikias (eds.), <i>Proceedings of the South by Southeast Conference: The History and Archaeology of Southeast Crete - from Myrtos to Kato Zakros</i>. Archaeopress.</p> <p>Kalantzopoulou, T. 2019. <i>I katoikisi kai i ekmetalleusi tou vounou stin anatoliki Crete kata tin proistoria: analysi me vasi ta architektonika kataloipa kai ta epifaneiaka eurimata stis oreines periohes tis Zakrou kai tis Ierapetras/ Habitation and exploitation of the mountains in east Crete during prehistory: an analysis based on architectural remains and movable findings studied on the upland areas of Zakros and Ierapetra</i> (diss. Kapodistrian Univ. of Athens). http://thesis.ekt.gr/thesisBookReader/id/46612#page/1/mode/2up</p> <p>Kalantzopoulou, T. and Y. Papadatos, forthcoming. "Outdoor Spaces and the Organization of Production on the Cretan Uplands: a mountain perspective of Neopalatial administration". In: E. Hatzaki and P. Zafeiriadis (eds), <i>Proceedings of the 2018 Conference: On the Outdoors of Aegean Prehistory</i>. Oxford: Oxbow.</p> <p>Papadatos, Y. and K. Chalikias 2019. "Minoan Land-Use Patterns and Landscape Transformation in the Mountains of the Ierapetra Area: The Minoan Building at Gaidourophas", in <i>Exploring a Terra Incognita: Recent Research on Bronze Age Habitation in the Southern Ierapetra Isthmus</i>, E.</p>

	<p>Oddo and K. Chalikias eds., (=INSTAP Monograph Series), INSTAP Academic Press, Philadelphia, pp. 79-95.</p> <p>https://www.academia.edu/42352969/Papadatos_and_Chalikias_2019._Minoan_Land-Use_Patterns_and_Landscape_Transformation_in_the_Mountains_of_the_Ierapetra_Area_The_Building_at_Gaidourophas</p> <p>Papadatos, Y. and T. Kalantzopoulou forthcoming. "Turning the landscape into territory: strategies of power for the exploitation of the Cretan mountains during the Neopalatial period", in <i>Political geographies of the Bronze Age Aegean, Proceedings of the Joint workshop by the Belgian School at Athens (EBSA) and the Netherlands Institute at Athens (NIA)</i>, ed. J. Driessen and G. J. van Wijngaarden, BABESCH.</p>
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